

New Product Development through Design Thinking

Companies follow various innovative methods for new product development on a continuous basis

Students at Stanford have innovated a simple product 'baby warmer (sleeping bag for newborns)' for low-birth-weight babies to give dying infants a hope. 20 million low-birth-weight babies are born every year and 450 low-birth-weight-babies die every hour. The babies need a warming device to protect them from the pressing disease 'hypothermia', which is caused due to fluctuations in temperature.

New Product Development is a process of developing a new product or service for the market. This type of development is considered the preliminary step in product or service development and involves a number of steps that must be completed before the product can be introduced to the market. New product development may be done to develop an item to compete with a particular product/service or may be done to improve an already established product. New product development is essential to any business that must keep up with market trends and changes.

Stanford Students wanted to develop a low-cost incubator for infants for their project work in the beginning. During the field work, while speaking with the families, they understood that incubators would not solve any of infant problems, particularly of low-birth-weight babies. Babies develop 'hypothermia' in homes where electricity is not available. Parents wanted 'warmers' not the incubators to maintain temperature during absence of electricity to protect infants. Students made a radical shift of project topic by focusing not on 'incubator' but on 'warmer' to provide a solution to the serious disease 'hypothermia'. The shift of thinking made students customer-driven. Customer-oriented perspective is the essence of design thinking.

Design Thinking (DT): It is human-centered problem solving method to understand and design a solution for actual users of the product. The solutions in the form of products, services, processes, teams etc. can be adopted quickly because they are created from end-user perspective. The features of DT are:

- Design thinkers observe, interview and engage with audience who actually use the solution before developing a product. They pay attention not only to what people say but also body language and emotions
- Design thinking involves all types of users to have a deeper understanding of audience tastes
- Design thinking generates all possible solutions. Design thinkers from different backgrounds brainstorm all solutions including impossible solutions on the table
- DT emphasizes prototype development so as to get feedback as early as possible

- DT tests the prototype and refines the prototype again and again. Throw preconceived notions and rethink if earlier ideas do not work
- DT discovers the right problem and show the way to overcome obstacles before the final solution
- DT is more valuable tool for social entrepreneurs because a simple solution can answer larger population
- DT seeks constant creativity and willingness to adapt on a continuous basis. Even the experienced design thinkers need the rigor of the process

For e.g. many ads fail to create any impact on customers because they focus more on laundry list of product features or price. What entices customers is creative message which connects the ad with the product. *Titan Edge* is the slimmest-designed watch in the universe, which is communicated in its new ad campaign 'mastery beyond belief'. The ad showcases a Swiss balance artist, Maedir Eugster, who balances a dynamic structure of sticks with a 'feather' that defies all laws of gravity. The ad is the visual metaphor of well-crafted design involved in Titan Edge slimmest watch.



Topic	Course
New product development: New product development Unit 13.5	Marketing management

Source: Soule Sarah, *Why Design Thinking is an Effective Tool for Social Entrepreneurs*, Stanford Graduate School of Business, 2013