

Frequently Asked questions

1. Define new food product development.

It is the process of developing a new food product for the consumers. This process is also termed as 'new product management', includes a series of steps that are based on conceptualization, design, development and marketing of newly created or newly rebranded food products. This type of development is considered the primary step in the product development. A thorough completion of the process must be achieved before the product can be introduced to the market to decrease the risk of failure. Overall, it is commercially oriented research to develop products and processes satisfying an already known or suspected need of a consumer.

2. What are the desired characteristics of a new food product?

The characteristics of a new food product introduced by a company are dependent on the ever changing needs and preferences of the consumers. The food related aspects that lead to decision on the product characteristics are food safety, shelf life, reducing wastage, foods with improved or specific nutritional value, palatability, and convenience. Variation of the characteristics and addition of new characteristics can make the product more appealing to the consumer. The characteristics are as follows:

- The product should not have been manufactured in the company before
- The product has not been distributed by the company before
- An old/existing product being introduced into a new area
- An old product introduced in a new form or package or labelling
- An old product introduced into a new market positioned as one with a new function

3. Write on any two types of new food products.

The following two products are explained in detail:-

- i. *Repositioned products* – also known as ‘brand repositioning’, it is a process where a company changes a brand's status in the marketplace. These are existing products for which a new use has been discovered with an intention to increase sales. Such products give new life to an existing product. This typically includes changes to the marketing mix, such as product, place, price and promotion. Ex: Products containing oat meal positioned as functional foods in reducing cholesterol. Repositioning is done to keep up with consumer wants and needs.
- ii. *Line extensions*–It is a strategy whereby a company markets new products under an already established and famous brand name with an objective to serve different customer needs or market segments while taking advantage of the widespread name recognition of the existing brand. Such products require minimum time during the phase of research for their development. An example can be new flavours for a soft drink.

4. What are reformulated food products?

When an existing product is reformulated in terms of ingredients used with an aim to improve the characteristics such as colour, flavour, stability, appeal and functional characteristics, it is termed as reformulated food. Such products may contain new ingredients or exclusion or replacement with an alternative ingredient. Ex: Low calorie (reduced sugar, fat) containing products, fibre biscuits etc. Reformulation of food and beverages changes the ingredients to produce a more healthful product such as reduction of salt or sugar with the goal of making the product healthful with respect to total calories and other nutrients. Such an attempt can preserve the interest of the consumers in the product thus keeping the financial aspect of the reformulated product active or useful to the company.

5. Differentiate between innovative and creative products.

These products are among the types of new food products with varied features. The innovative products are produced based on the outcomes of changes made in already existing products whereas Creative products are first of their kind in the market which have not been in existence earlier thus making them novel. The degree of innovation used in the innovative products decides the time, costs involved and extensive marketing required to develop one. Ex: Canned snack food dips. Creative products also require extensive development time, marketing,

expensive equipment and processes thus are costly. They also carry a higher risk of failure. But if successful, they can result in considerable profits to the company. Ex: Extruded products, Ready to eat snacks etc.

6. What are the factors leading to development of a new product?

The shorter life of most of the food products in the market creates a need for replacement or rebranding. This combined with successful new products can elevate the financial profits of a food company. These are the basic forces of product development, broadly the following reasons are attributed to the initiation of product development process:-

- Ever changing consumer demand – increased awareness and changing preferences
- Technological advancements aiding in developing foods which are safe and possess extended shelf life
- A product nearing the dying or withdrawal phase
- Changes in laws and regulations
- To continue or enhance the growth of a company

7. What pre-requisites are needed to initiate a new product by a company?

Consumer's preference and awareness keeps on changing consistently. All food companies basically keep the motive to grow financially and increase their profits by introducing new foods or modified existing products to satisfy the needs of the consumer. Overall, the following objectives drive the new product development by a company-

- To increase the product range available to customers or to enter into a new segment in the market
- To enter into a new segment or sub segments
- To increase the profitability
- To increase the customers preferring their products
- To overcome the effects of failure of another product

8. Brief on the key elements required and steps involved in new product development.

A plan to develop a new product requires three key elements namely thinking skills, analysis and synthesis. The basic elements of a strategy for a company are the market, stakeholders, capacity and capability. The strategy by itself is influenced by size of the company, management, market type, resources available (financial, technology, skills, human etc), influence of the channels used for distribution, supermarket chains and level of competition for the products. In order to attend the process, the new food product development is stratified into stages and sub stages. Four stages as described by Earle in 1997 are:-

- Product strategy and planning
- Creation, design and development of a product
- Development of programs for marketing, production, and quality assurance
- Optimization of production and distribution for the launch and analysis of the post data

9. How is product strategy and planning carried out in the development of new product?

This is the first stage in the product development where steps are taken to ensure the connections of the product development process to the company's research development. The major activities carried out are development of product ideas/concepts and gathering the information and analysing it for the production, marketing, technological and financial requirements. A product development team will take the concept and work on it to convert it into ideas for new products. In case of insufficient knowledge about the consumer, market of the intended product, research is conducted. The product culminates in aiding the management to decide about the implementation of the business strategy, the financial aspects and time to be invested in the process.

10. Write on the design and product development step in the product development?

This is an important stage in the product development process as it decides the uniqueness of the product which is a key element in the product development success. This stage involves the application of various techniques and coordination of the research. Certain product characteristics are defined in this stage. The raw materials, processing conditions, prototype development, packaging design and shelf life prediction are investigated as the product is developed. The variations arise due to the development of many quantitative measuring

techniques for assessment of the consumer needs and technicality of the product. The use of concepts on engineering from other industries in the food industry is reported to occur in this stage. Based on the outcomes, the decision to 'go on' to product commercialisation or not is decided.

11. Write on the need of marketing and business analysis in product development process?

The need for marketing and business analysis arises when the product design is complete. The analyses directs the decision making process before launching. When there is lack of control at this stage product failures can occur. The company studies the feasibility of production and distribution, the viability of the market strategy, the finance and the other resources needed for the next stage, the predicted returns on investment are analysed. The definition of the measures for success and failure are also depicted. Overall, this important step involves testing of the product, analysis of hazards and setting up control points, development of management plan for the process, study of market and financial analysis.

12. Write on the final step of product development process as described by Earle.

The last step in the product development process involves optimization of production and distribution for the launch and analysis of the post data, as described by Earle in 1997. The management, in this step sets standards against which the decision to judge the launch of the product takes place. This also involves consideration of the possible response from a potential competitor in planning a similar strategy. Decisions are taken regarding the development of future products in the same line or a re-launch with improvements. Monitoring of the environment, competition, social and economic changes is also carried out. Broadly this stage involves launch of the product, study of quality and efficiency of production process and analysis of consumer behaviour toward the product.

13. What is the scope of new food product development?

Each food company will have a large range of products, often including hundreds of products. These products display a constant evolution with old products dying, existing products reaching maturity, some products contributing to rapid growth and new products being introduced with the advent of technology. The development strategy is usually aligned with the

company's business strategies. A far sighted and organised process has the ability to meet the company's financial goal. The other advantage of this process is that the company can recognise deficits in the knowledge of the latest technology available. Overall the new product development process can lead the company to acquire new technology, improve communication and establish new criteria for product development and business strategy.

14. Write on any three tools used to manage the product development process?

The tools used in managing the process of product development are as follows:

- i. Tools in the product designing stage include:
 - 3 dimensional modelling software which can describe the exterior and interior of the product in three dimensions;
 - Rapid-prototyping which can test new design concepts by developing them into models using plastic materials;
 - Collaborative design tools which use an intranet or the Internet facilitating the design simultaneously by many people.
- ii. SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats) which is a structured planning method used to understand the weaknesses, strengths, opportunities and threats for the product.
- iii. Market segmentation, targeting and positioning is a strategic approach that involves identification of slots in market with specific needs, to find new customers and to deliver focused and effective marketing messages.

15. What factors can lead to failure of a new product?

The risk of failure exists always for a new food product due to the consistent competition in markets both at domestic and global level. The major reasons for failure of product are as follows:

- Inadequate market analysis – can lead to improper positioning of the product, poor timing of the launch and lack of differential advantage over existing products.
- Product defects – for instance a bad concept or technical defects in the product

- Lack of effective marketing effort
- Higher costs than anticipated – can lead to failure for instance inability to meet the requirements of the distribution channel or affording the facilities required to process the product or create an inability to support rampant growth in sales
- Competitive reaction by other companies
- Lack of clarity on the market for need for the product