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## DESIGNING AND DEVELOPING PROMISING PRODUCTS

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The subject under consideration is one of the most actual. As we know the aim of any business is to maximize the benefits, so there is a need to design and develop new promising products.

This process is necessary for the development of an organization, as it helps it to survive and often puts it on a higher level .

Developing a new product is one of the most important area of marketing activities. However, schemes of develop new products published in the economic literature do not fully contain the elements of modern marketing toolset, thereby reduce their practical and methodological significance .

There is a need of special rules to carry out design and development of promising products effectively for an organization, which doesn't want to fail.

**Product design and development** is considered to be a set of processes that transform product requirements (e.g. specifications, legal requirements, as well as directly stated or implied customer requirements) to the specified characteristics of the product ("the distinctive characteristics of the product"). Paragraph 3.5.1 of ISO 9000 gives the following examples of product characteristics:

- physical (e.g. mechanical, electrical, chemical or biological characteristics);
- sensory (e.g. related to smell, touch, taste, sight, hearing );
- behavioral (e.g. courtesy, honesty, truthfulness );
- temporal ( e.g. punctuality, reliability, availability) ;
- ergonomic (e.g. physiological characteristic, or related to human safety);
- functional (e.g. maximum speed of the aircraft) .

Designing products in the production process includes the development of manufacturing operations, the definition of production capacity and the very product design and manufacturing processes. Product design is made in accordance with customers needs.

The criteria of product design are price, economy of operation, quality, luxury items, size, power, strength, service life, reliability, simplicity of operation, safety of operation and versatility .

A designer has to make decisions regarding size, shape, materials, the ratio of standard and specific elements, components and security elements .

Once a product is designed, another step is to define the stages of its manufacturing process. The criteria for the manufacturing process design are known as production capacity, cost-effectiveness, flexibility, reliability, performance, suitability for repair, standardization, consistency of results, safety demands and meeting the needs of workers.

The production process designer has to take decisions with respect to the type of processing system, that is the type of production, the production itself, component parts, methods of processing, degree of mechanization and automation and specialization of workers.

It is necessary for products designers and the designers of production processes to work closely together, as their work is interconnected and the final result depends on their successful cooperation.

Services design and the design of their production process involves several factors:

- location of service organization ( it usually specifies a consumer location) ;
- customers needs;
- scheduling of work;

- quality definition;
- communication skills of employees;
- production capacity ;
- employees efficiency.

In conclusion, I would like to note that the processes of development and design of promising product require large material resources, tremendous effort and considered to be very time-consuming processes. On the other hand I want to emphasize that the result of these processes has a good "feedback", that is despite the fact that we invest huge amounts of money, it comes back to us in a multiple size. That is why this branch of industry is actively developed and remains relevant in all countries.

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