

Research and development

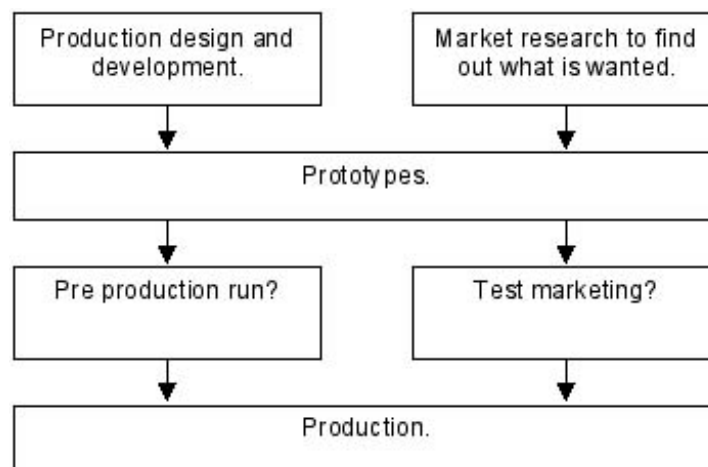
Most people associate the research and development (R&D) function of a company with the invention of new products. Whilst this is very important, the development of existing products is of equal significance because consumer preferences are continually changing. The task of product research and development is to come up with the goods and services that meet the needs of tomorrow's customers.

In any well-run company, research and development have strictly commercial functions - to further the company's business objectives by creating better products, to improve operational processes and to provide expert advice to the rest of the company and to customers.

Some research is not expected to pay for itself within a foreseeable time span. Large companies may allocate as much as one-tenth of their research budget to so-called blue-sky investigations whose most likely contribution is to the development of new products and a possible pay-off in the distant future.

Within an organisation anybody who is directly working on a project and affected either up or down the line by your work is considered to be an internal customer. If there is no internal customer for work from any area of the organisation then the research project is unlikely to fit in to the development process, and will fail.

Product research and development goes hand in hand with market research and development. Considerable liaison is required between these two areas, and processes need to be standardised. Setting up a production process or a new line can involve considerable cost, and careful work in the early stages will help to ensure that profits are made.



Product researchers use marketing information to help them to develop products or services and choose suitable designs.

Design is simply the art of making things of quality that people want, and/or packaging them or presenting them in an attractive way.

The layout of a supermarket, or bookshop, for example, has to be designed - a customer must be able to find quickly what he or she wants. In this case the right use and allocation of space is vital to ensure profitability. So is the concept of service; many quality retailers give prominence to aspects of customer service such as clearly visible help desks, or greeters.

Product researchers must also consider production costs, ease of manufacture and selling price.

A company might be reluctant to change an earlier design, particularly if it provides status (e.g. a designer label on a tracksuit or baseball cap). Conversely, small ('cosmetic') changes may be made to products to bring them up-to-date e.g. the logos of leading companies to give them a more modern feel.

Once a design has been completed the product researchers will build a prototype which can then be tested. Some prototypes will be discarded while others may be modified and improved. When a product has been tested and thought to be successful, and all the marketing and production questions have been answered, the firm will need to 'tool up' its production line.