

CHAPTER 1 NATURE AND SCOPE OF PRODUCT DEVELOPMENT

Products can be either physical products or services.

Product development is the process that is undertaken from the generation of a product idea through to its release into the marketplace as a commercial product. It may also include renewing an existing product or introducing a product into a new market. A product itself can be a manufactured item (e.g., vacuum cleaner, motor vehicle etc.) or a service (e.g., banking, financial advisory services, insurance products etc.).

Considerations within the process will relate to the product and customer type, for example:

- What type of product is it?
 - ◆ Goods
 - ◆ Services
- Who is your target audience?
- The development process.

Let's now consider these in more detail.

What Type of Product Is It?

There are many factors to consider when developing a new product or idea for market. These may range from developing a new product in an area that your business is already well established in, producing a product for an existing market area, entering

a new field or market environment etc. It could even be development of a product which already exists but that needs changes to keep up with market expectations and demands. As you can see there are lots of different scenarios.

When we refer to a product, many people initially think that this is just something to sell outside of the company. However, there may also be situations where products are designed for internal customers i.e., employees. This has different connotations in terms of cost and design since money will not be paid for the item directly though it will benefit the overall operation.



Although product development as a term may suggest reliance on a specific department or business function, in reality it will involve input from different areas of the business. The actual initial idea may have come about via, for example, customer or consumer feedback, or it may have been a spin off from market research or prompted by the successful release of a product by a competitor for which a company

does not have an existing competing product in the marketplace.

As such product development will inevitably have input from marketing, production, and finance departments. As plans are laid to actually produce the product, other departments such as Personnel/HR will need to be involved as well to ensure that sufficient resources are in place to support the production.



Who is Your Customer?

Without customers, there is no product to sell. Defining who your customer is and locating your market, can help to not only improve the development of your product, but it can also help you to establish a marketing strategy for future sales.

To design a product that appeals to the majority of the potential customers, the overall market which is made up of all consumers is divided into groups with common characteristics. The group most likely to buy your product is called the target market for the product. A target market is defined

by the following characteristics:

- Demographics - are statistical measures like age, income and level of education that defines a market segment.
- Geography - refers to where the product will be used or where your customers are located.
- Lifestyles - can be classified according to a person's beliefs, behaviours, and socioeconomic class. Shopping habits, leisure habits, familiarity with technology and religious practices are lifestyle characteristics.

The Development Process

Inevitably the process needs to start somewhere, and this will be with the initial idea for a product or service. There will then follow a number of steps to bring the product or service to the marketplace.



Research and Development

The company will need to undertake research to identify potential demand for the product. This may be a combination of researching the existing marketplace to identify where there may be openings for a new product, assessing current and likely growth trends within the sector, whilst also looking at and assessing potential competitors' products. For example, do competitors offer products with all the features desired by customers? Do competitors offer the most appealing product/package that could be produced?

This research can come in different guises, for example it may be very informal chats with customers gaining feedback on an existing product range. Equally it could be a more formal questionnaire delivered to a much larger group of people to gain insights into expectations within a particular field. This might involve a marketing research company being employed to gather the most reliable information.

This stage of the process is not to be underestimated, whilst many will skip this stage due to lack of funds, or thinking that they know what the consumer wants, this is likely to impact on the success of the overall acceptance of the product.

Product Planning

Product Planning will involve both the physical realities of planning how to produce a product, and how it will be marketed. Whether a business is to produce a physical product or a service, they need to determine how it will actually be made. For a physical product such as a car, this will involve raw materials and plant equipment, and is also likely to involve production partners who will contribute readymade elements that form part of the final product. For example, specialist firms may produce braking or gearbox systems which will be used in the resultant motor vehicle. This avoids extensive research and development costs in these areas for your company, as the specialist firms will already have undertaken this. For an investment or financial services product, this may mean selecting a partner company to, for example, provide insurance or underwriting elements to a service.

Planning marketing strategies, costing, etc will also form part of the process here. The company will need to determine not only how the product is to be pitched to customers, but also what pricing constraints the market will place on the product along with where the product is intended to fit within that marketplace. For example, will your

product be a value proposition that will seek to undercut or offer perceived better value than competitor products, or will the product major on uniqueness and quality meaning that it can be sold at a premium Understanding where the product will fit in with the marketplace will impact the choices of materials, complexity of design, etc that will themselves determine the likely base production cost for the product. The producing company will also need to examine budgets for cost of tooling, human resources etc to make the product a reality.



Prototypes and Testing

Having completed the planning stage, the organisation will now be ready to put together a prototype product. This will need to be assessed in terms of, for example, ease of production, ease of use, suitability for purpose, wearability, etc.

The extent of the test phase will be dependent on the product type, for example more complex products can take a lot longer to go through this phase particularly if the product is completely new. Those products which are being updated in some way should still go through this phase to ensure that the changes are appropriate to the target market.

Ideally you are wanting to test your prototype on real consumers, those who are most likely to purchase and use it. This gives valuable feedback to enable improvements and alterations to be made.

The complexity of the prototype will be dependent on what needs to be validated through the testing process. This stage may need to be repeated multiple times, and designs can be altered and tested again and again until the product does what the team desire it to. The last thing you want, is to spend money on producing something which isn't fully functioning. Whilst this process takes time and money, it will save that in the long run. It's important to have a clear goal for this process, it shouldn't be just about testing a prototype, there should be a specific objective to be achieved.

Pre-Production Phase

Lessons learned from the planning, prototype and testing phases will have