

Chapter 9: Product/service design

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- Question: How can firms guarantee to stay *competitive* and *generate revenue*?
- Answer: By bringing *new* products and services to the market.
- *Product design*: process of creating a new product or service
 - process involves:
 - * *identify need* for a product in the market
 - * *generating* ideas
 - * *developing* ideas
 - writing a *design brief*
 - * contains *features* about the product
 - * *designers* will use the design brief as starting point
 - Example: *Factors* that might be taken into account when designing a *new travel iron*
 - * *shape* and *appearance* of the iron
 - * whether it fits the *intended need*
 - * how *easily* and *cost-effectively* it can be produced
 - * the *dimension* and preferred *material* to be used
 - * the *image* it gives when displayed
 - * whether the product should say something about the *image of the company*
- *Design mix*: key features that have to be considered (*function, cost, and aesthetics*)
 - *Function*:
 - * product/service has to be *fit for the purpose* (e.g., warranties)
 - * product/service should be *convenient* and *easy to use* (e.g., frustration of consumers when things don't work)
 - * products can be designed *ergonomically*: can be used safely and without unnecessary effort
 - * product/service has *superior functionality*: unique selling point or USP (e.g., Volvo emphasises *safety*)
 - * products must be *safe*: should not contain dangerous, poisonous material, unprotected sharp edges, ...
 - *Aesthetics*:
 - * products/services should provide a *sensory stimulation*: size, appearance, shape, smell/taste, presentation ⇒ consumers may buy a product because of the aesthetics rather than the functionality (e.g., smell of leather seats rather than the fuel-efficiency for a luxury car)

- Cost:
 - * products/services should be designed with *materials* and *processes* that minimize costs
 - * *trade-off* between design and cost
- Question 2: 10 min.
- Social trends: *global warming*, *resource depletion*, and *pollution* are issues that consumers are more and more aware of, and businesses start to take this into account when designing products/services
 - Design for waste minimisation
 - * increase *lifetime of products* (allow components to be *replaced* or *repaired*)
 - * design *smaller and lighter* products (reduces use of production material, packaging, transport, ...)
 - * reduce *disposable products* (e.g., disposable razors)
 - * reduce food waste in restaurants
 - * idea of *waste minimisation* is not accepted by many businesses
 - products are discarded because they are *out of date*
 - in fashion industry clothes are used for short period of time (*fashion*)
 - Design for re-use
 - * components of products could be re-used (e.g., components of mobile phones)
 - * packaging could be designed in order to be re-used (e.g., returnable bottles for drinks)
 - * in theatre industry *sets and props* could be easily dismantled and re-used for different plays
 - Design for recycling
 - * adapt production methods in order to use *recycled material* (e.g., glass producers)
 - * businesses could specialise in producing exclusively with *recycled material*
 - * businesses could make use of *waste discarded by other businesses*
 - * in media, material may be recycled to be broadcast in different forms
 - Ethical sourcing: businesses only use materials, components and services from suppliers that (i) respect the environment, (ii) treat their workforce well by paying them a fair wage and providing a safe working environment, and generally (iii) trade with integrity

- * *fairtrade* label
- * many businesses, however, still focus on lowering costs (e.g., discount brands)
- Adapting product designs to changing social trends: *What are the benefits?*
 - reducing waste \Rightarrow using fewer resources \Rightarrow lower costs \Rightarrow higher profits
 - *if* designs reflect social trends \Rightarrow products will be more popular \Rightarrow sales in larger quantities
 - *if* design features \equiv USP \Rightarrow marketing of products will be more effective (e.g., Ecover)
 - image of *good corporate citizen* by adopting new designs that reflect social trends