Name:

International
SCHOOL OF LONDON
Qatar

HL

DP DESIGN TECHNOLOGY

TOPIC 9

INNOVATION & MARKETS
NOTES & GUIDANCE BOOKLET
2020-2022

This booklet contains the Notes, and
teaching support material for Topic 9

DP DESIGN WITH
MR MONEEB

Contents Page

Teaching & Learning Presentations

Topic 9: What is covered?

These are the topics covered in Topic 9:

	HL TOPICS	Topic Covers	Approx Lessons hours on each topic	Total Lesson Hours	Checklist (✓)	Exam Mark	Exam (%)
9	Innovation and markets	9.1. Corporate strategies	3	13			
		9.2. Market sectors and segments	2.5				
		9.3. Marketing mix	2.5				
		9.4. Market research	2.5				
		9.5. Branding	2.5				

9. Innovation & Markets

Essential Idea: Designers must research and consider the target market sectors and segments in the design of their products.

Concepts and Principles:
- Pioneering strategy
- Imitative strategy
- Market development
- Product development
- Market penetration
- Product diversification
- Hybrid approaches
- The relative success of pioneering and innovative strategies
- Corporate social responsibility

Guidance:
- Comparison of success between pioneering and imitative strategies
- Examples of companies and products that have used the above strategies
- Examples of a company and its products that are a result of a hybrid approach
- How corporate social responsibility may be a particular goal of a company whereby the aim is to manage the economic, social and environmental impacts of their operation to maximize the benefits and minimize the disadvantages
- Examples of evidence of effective corporate social responsibility for a major multinational company

Aim:
The designer must consider the ethical implications of imitating the products of others and their implications on a cultural, economic, and intellectual property level.

Nature of design:
The success of a company relies heavily on the strategies it adopts. The evaluation of products, services and systems can inform the selection of the most appropriate strategies to follow that will enable a company to achieve its objectives.

Theory of knowledge:
Is strategic planning more influenced by reason, intuition or imagination? Or by a combination of all of the ways of knowing?

Notes / Activities

WHAT MARKETING IS AND HOW IT'S USED

PRODUCT — Procedures to ensure the products are ready for selling

PRICE — Set it at a level comparable to competitors

PROMOTION — Brochures, ads, and information to generate interest

PLACE — How and where products are distributed to sell

the balance

9.1 Corporate Strategies

Pioneering strategy

Being the first to market with a new innovation. Pioneering means being ahead of the competitors by introducing a new product first. This strategy has the potential for high profit if the product is successful Examples: James Dyson Cyclone Vacuum C, Tesla

- It is the most risky (costly) strategy but one with the potential for the largest gains.
- A pioneering company requires a strong research and development (R&D) capability, which is expensive.
- A pioneering company needs to be financially secure and requires product champions to push new ideas.
- Consider the Sony or Apple companies and their various pioneering developments.
- Good market research can offset some risk, but is problematic for novel products.
- To be successful while using this type of corporate strategy, the firm must learn more about the consumer market by extensive market research.
- This is recommended because the pioneering strategy is very risky due to the fact the firm is introducing a totally new, unknown, and unexpected product or service to the market.
- Although pioneering is risky and costly, the profits that can be earned from this strategy balances with the risks

Pioneering strategy example

A good example of product pioneering occurs in development and introduction of the 1st cell phone. In 1984, Motorola offered the first commercially available cell phone and soon found itself a leader in the field of mobile communications.

Motorola's device was the start of a revolution in mobile communications. Of interest if the fact that little remains of Motorola's dominant cell phone division that has largely been absorbed by Google.
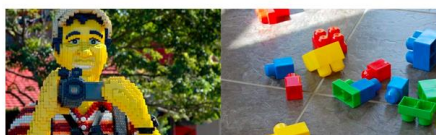
Imitative Strategy

Developing products that are similar to an existing new product. The imitative strategy aims to develop a product similar to the 'pioneered' product as quickly as possible. It takes advantage of all the Research & Development invested by others. Developing Products that are similar to an existing new product. Examples: Lego and Megablocks

Imitative Strategy - Apple iPhone launched 2007. Samsung Galaxy launched 2009

The Success of Pioneering and Innovative Strategies

Examples of companies and products that have used the above strategies – Apple vs Samsung
The Apple iPod is an example of a product developed using a pioneering strategy. At the time, there were no similar products on the market. As Apple has continued to develop products such as the iPhone and iPad, many electronics companies have mimicked the aesthetic style and functionality of their products.
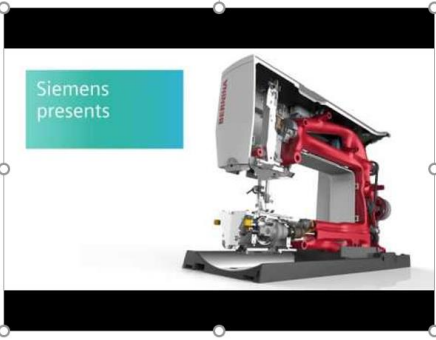
Reverse Engineering

This is the process that imitative manufactures use to extract knowledge or design information from products & systems and reproduce it.

Mostly the product is disassembled and components analysed.

Example of reverse engineering for a retro design sewing machine.

Hybrid approaches

This is the most common strategy. Companies that use a mixture of pioneering, imitative strategies or any of the below ones listed, in order to:

    maximize profit and sales
    provides for a quick turn around
    reduces Research & Development spending
    reduces the risk of employing only a pioneering strategy

Result of Hybrid approach: If a company has a hybrid corporate strategy it will adopt an expensive and risky pioneering strategy for some products and a cheaper and safe imitative strategy for others.

Comparison of success between pioneering and imitative strategies The imitative strategy aims to develop a product similar to the 'pioneered' product as quickly as possible. It takes advantage of all the R&D invested by others. Pioneering involves charting a new or innovative course; whereas, imitative strategies is to create a product based on a few existing ideas.

The Sony Timeline by Jesús Díaz - Gizmodo
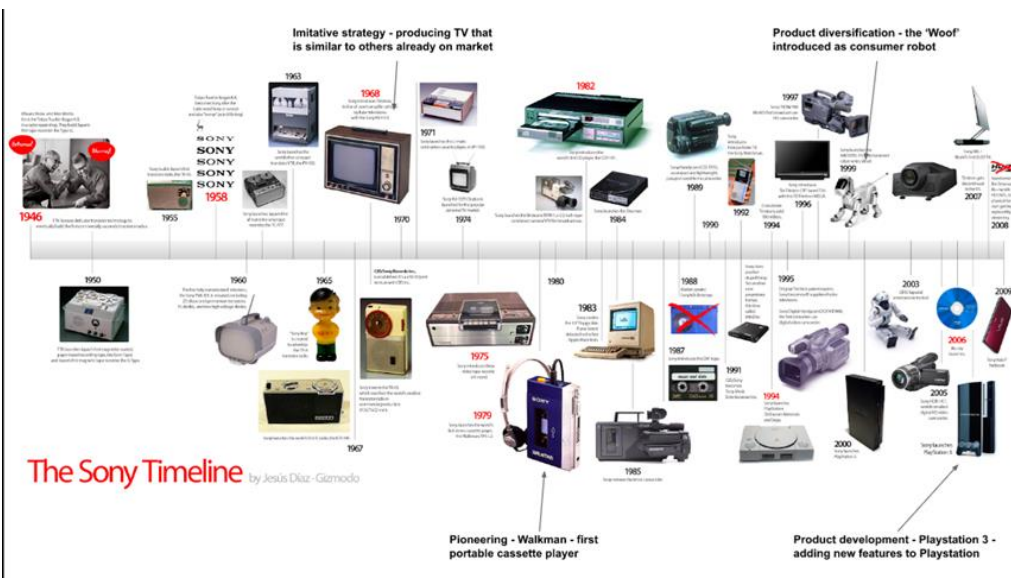
Ansoff Matrix

The Ansoff Matrix also known as the Ansoff product and market growth matrix is a marketing planning tool which usually aids a business in determining its product and market growth. This is usually determined by focusing on whether the products are new or existing and whether the market is new or existing. The model was invented by H. Igor Ansoff. Ansoff was primarily a mathematician with an expert insight into business management. It is believed that the concept of strategic management is widely attributed to the great man.

The Ansoff Matrix has four alternatives of marketing strategies;

Market Penetration,
product development,
market development
diversification.

Product-Market Ansoff Matrix

The Ansoff Matrix
Strategies for Growth

TASK

Activity a: Describe a product that has been produced that was/is similar to an existing product (other than an Apple product) that was pioneering. Also, consider the relative success of the pioneering strategy.

Activity b: Describe a product that has been produced that was/is similar to an existing product (other than a Samsung product) that was imitative. Also, consider the relative success of a imitative strategy.

Activity c: Describe a product that has been produced that are a result of a hybrid approach. Also, consider the relative success of a hybrid approach.

Market development

Finding new applications for existing products, thereby opening up new markets. Increasing sales to existing customers or finding new customers for an existing product.

This marketing strategy may also be known as **Market Extension**. In this strategy, the business sells its existing products to new markets. This can be made possible through further market segmentation to aid in identifying a new clientele base. This strategy assumes that the existing markets have been fully exploited thus the need to venture into new markets

There are various approaches to this strategy, which include:

New geographical markets
new distribution channels
new product packaging,
different pricing policies

Market Development

Initially, Heinz vinegar was just used with food.

Now, it is also a popular window cleaner.

Product development

The creation of new, modified or updated products aimed mainly at a company's existing customers.

In product development growth strategy, new products are introduced into existing markets. Product development can differ from the introduction of a new product in an existing market or it can involve the modification of an existing product. By modifying the product one would probably change its outlook or presentation, increase the products performance or quality. By doing so, it can appeal more to the already existing market.
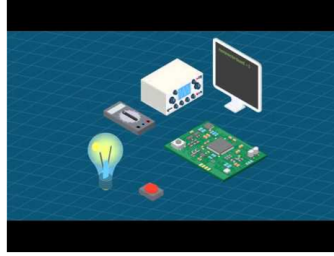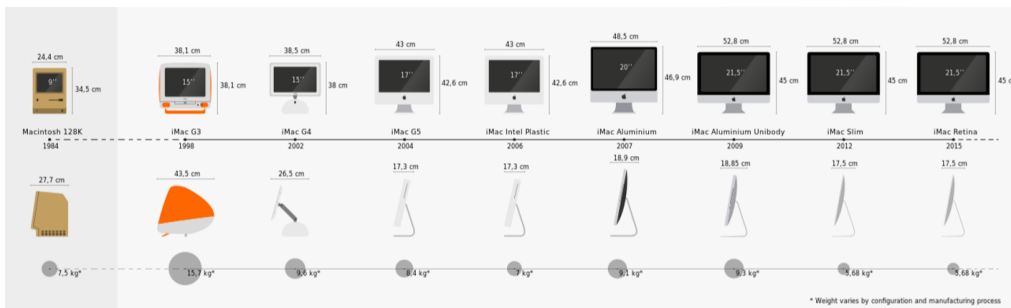
Example

Car manufacturers who offer a range of car parts so as to target the car owners in purchasing a replica of the models, clothing and pens.

Example

Apple's Product Development Process, Design is at the Forefront

Market penetration

Increasing sales to existing customers or finding new customers for an existing product. Market penetration is a tool used to determine the potential growth available for product sales.

When we look at market penetration, it usually covers products that are existence and that are also existent in an existing market. In this strategy, there can be further exploitation of the products without necessarily changing the product or the outlook of the product. This will be possible through the use of promotional methods, putting various pricing policies that may attract more clientele, or one can make the distribution more extensive.

Coca-Cola is the biggest non-technology company in the world. Originally only selling 7 servings a day, the company has grown slightly, at an estimated rate of more than 1.9 billion servings a day.

http://www.youtube.com/watch?v=XhMVWzVXNNk

Product diversification

The process of setting uniform characteristics for a particular product, system or service to help increasing sales. It involves the modification of an existing product so that its market potential can increase.

Increasing sales from new products [and]/or [new] markets

Involves a company both in the development of new products and in selling those products to new companies.
High risk strategy.

Virgin Group

The Virgin group currently has over 400 companies under the Virgin brand. They have branches that stem from airlines to a recording company

Here is an animation on the history of Virgin to understand how the group expanded in so many companies. -->

http://www.youtube.com/watch?v=tAR910daPOE

Ansoff Matrix: Market Diversification - Task

Research the Virgin brand. List the different products and market segments

Ansoff Matrix: Product or Market Development, or both?

Corporate social responsibility

Corporate social responsibility is a form of self-regulation for a company that centres around the development of goals related to three areas:

Economic
Social
Environmental

Toms Shoes,one for one and even more -->

What is the aim of corporate social responsibility?

Refers to a company's approach for the future. Often involves an assessment of the current situation and mapping of the policies and procedures to achieve predetermined goals." - goals may be long term or short term, production-based, environmental, financial or competition. The designer/company needs to consider the ethical implications of imitating the products of others and their implications on cultural, economic, and intellectual property level. Examples include use of Leather/fur, Animal testing (body shop/cosmetics), Labour camps/Sweat jobs, Fair Trade, etc

Match the keywords with the right definition

Pioneering strategy | Market penetration | Market development | Corporate social responsibility | Product development | Product diversification

A form of self-regulation for a company that centres on the development of goals related to three areas: economic; social; and environmental.	Finding new applications for existing products, thereby opening up new markets.
Increasing sales to existing customers or finding new customers for an existing product.	The creation of new, modified or updated products aimed mainly at a company's existing customers.
Being first to market with a new innovation	Increasing sales from new products and markets.

INTERNATIONAL MINDEDNESS

Adoption of corporate social responsibility by multinational companies can be used as a distraction from their core business practices.

SHELL DROPPED BY VAN GOGH MUSEUM

Example

Shell sponsorship deal with Amsterdam's Van Gogh Museum ends

The museum as well as the Mauritshuis in The Hague have stopped collaborating with the oil company by "mutual decision"
https://www.theartnewspaper.com/news/shell-sponsorship

THEORY OF KNOWLEDGE & PPS

The designer must consider the ethical implications of imitating the products of others and their implications on a cultural, economic, and intellectual property level.

Counterfeiting: **Counterfeit products** are fakes or unauthorized replicas of the real pro[...] products are often produced with the intent to take advantage of the superior value of [...] product

Shanzhai: In Chinese culture has many meanings. It refers to the act of copying.

In the final episode of our Future Cities strand, we examine Shenzhen's so-called "Shanzhai" (imitation) supply chain as authoritarian governmental control and hyper-accelerated gentrification are rapidly changing the face of the city.

Casey Neistat researches his counterfeit Ray Bans

EXAM STYLE QUESTIONS

2019 nov exam

30. Which of the following corporate strategies presents the least risk for a company?
A. Product development
B. Product diversification
C. Market penetration
D. Market development

2019 exam

40. Dan Clark has created his own start-up company to make the Alpha Dog headphones that are based on previous models of the headphone. Which of the following corporate strategies is being used?
A. Market penetration
B. Market development
C. Product development
D. Product diversification

GUIDING QUESTIONS

1. Compare and contrast Pioneering strategy and Imitative strategy
2. Explain why some companies choose to adopt an Imitative strategy
3. Give an example of a company that has adopted a Pioneering strategy and an Imitative strategy
4. Compare and contrast Market Development with Product Development. Give an example of each.
5. Describe Market Penetration
6. Explain the different ways Market Penetration can be achieved
7. Define Product Diversification
8. Give an example of a company that has used a Product Diversification strategy
9. Explain why a company might employ a hybrid approach.
10. List the three main areas Corporate Social Responsibility refers to
11. Identify a company that demonstrates an effective corporate social responsibility

EXAM STYLE QUESTIONS

2018 Please read the case study.

When the Italian manufacturer Alessi commissioned the architect Michael Graves to design a new kettle, the company stipulated two requirements. They wanted a hob kettle that would come to the boil quickly, and that looked American. Graves realised that a fast boil could be achieved by making the kettle the right shape, with a broad base that tapered towards the top, see Figure 14, but making it look American was more of a challenge. In the end, he looked back to the childhood summers he spent on a farm in Indiana for inspiration. He remembered waking to the sound of boiling water and the rooster crowing, so he gave the kettle a whistle in the form of a coloured bird that screeched when steam from the boiling water rushed up the spout, see Figure 15. This witty reference to the past was typical of the Postmodern movement in design and architecture of the 1970s and 1980s.

Developed in 1985, Graves' Alessi kettle with a bird whistle remains an iconic design with one of its successes being that it meets all four aspects or criteria of the four-pleasure framework.

37. What was the growth strategy that the Alessi company utilized in commissioning Michael Graves' new kettle design?

A. Market penetration
B. Market development
C. Product development
D. Product diversification

EXAM STYLE QUESTIONS

2017

32. Apple has just released an updated iPhone. This is a new product aimed at an existing market. What corporate strategy is this an example of?

A. Market penetration
B. Product development
C. Market development
D. Product diversification

2016

30. Which combination of product and market characterizes the corporate strategy of market penetration?

	Product	Market
A.	Existing	Existing
B.	Existing	New
C.	New	Existing
D.	New	New

EXAM QUESTIONS

2017 November exam

1. Figure 1 shows the original Dualit toaster. Built for commercial use, they have since won numerous consumer accolades and come in a range of variants, sizes and colours.

(b) Outline the strategy used by Dualit by introducing the Dualit toaster in a range of different sizes and colours. [2]

Award [1] for identifying a strategy used by Dualit by introducing the Dualit toaster in a range of different sizes and colours and [1] for a brief explanation

- product development (strategy)

- modified design targeting an existing market / leading to the development of a product family

EXAM STYLE QUESTIONS

2019 exam

2. Print All Over Me (PAOM) is an online platform that utilizes mass-customization to create custom-printed fashion garments. Its unique aesthetic of bold, all-over printing is created using digitally printed fabrics, see Figure 5.

The platform allows users to apply their image files to various garment designs which can be previewed and bought, see Figure 6.
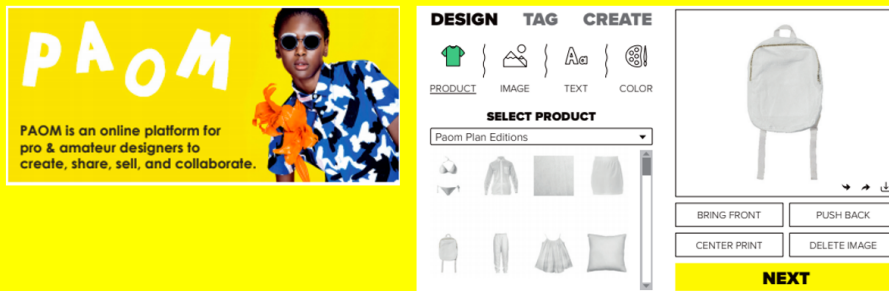
EXAM STYLE QUESTIONS

(Question 2 continued)

PAOM has their own original garment designs and every three months they release new blank garment templates that can be printed on, see Figure 7. There is a wide variety of garment types to choose from.

PAOM uses just in time (JIT) production. Garments take two to three weeks to manufacture as the fabric must be printed, then cut, then sewn. PAOM uses a pioneering strategy and refers to this as "slow fashion". They define "slow fashion" as a sustainable and ethically made fashion.

2(d) Explain why PAOM is using a pioneering strategy. [4]

EXAM STYLE QUESTIONS

2019 exam

Read the case study.

3. IKEA is currently the world's largest home furnishings retailer operating in over 40 countries and has been celebrated for its commitment to sustainable growth.

The IKEA Group People & Planet Positive sustainability strategy lays out IKEA's vision for a more sustainable future. As part of this strategy, IKEA developed a "sustainability scorecard" to measure how sustainable their products are at each stage of their lifecycle, see Figure 8.

IKEA SUSTAINABILITY PRODUCT SCORE CARD CRITERIA IN BRIEF:
• More from less (using less material in the product)
• Renewable material
• Recycled material
• Environmentally better material
• Separable & recyclable material
• Product quality
• Transport efficiency (number of products per container)
• Energy efficient production
• Renewable energy in production
• Raw material utilization at suppliers
• Product use (less use of energy and water, and less waste in customers' homes)

EXAM STYLE QUESTIONS

(Question 3 continued)

Part of IKEA's sustainably strategy is to reduce transport-based carbon emissions by 30 % by the year 2020. To reach their goals, IKEA is constantly reviewing their manufacturing and distribution systems to ensure production and distribution is sustainable.

In the mid-2000s, IKEA saw a rapid increase in the North American market. A manufacturing centre at Swedwood, Virginia (USA) was opened in 2008 and specializes in panel-based wood products, such as bookcases. This highly-automated factory uses a lean manufacturing system developed by IKEA and based on several well-known techniques including the 5Ss and Kaizen.

(a) List two ways how IKEA considers corporate social responsibility. [2]

EXAM QUESTIONS

Nov 2016

2. In 1993, James Dyson launched the production of the first range of vacuum cleaners based on a new technology known as dual cyclone technology. Figure 2 shows an upright vacuum cleaner.

Upon the success of this product, the Dyson company continued developing new vacuum cleaners, such as cylinders, cordless, and hand-held in order to maintain its market-leading position.

At the Dyson company, product development is not the only growth strategy. It has adopted a diversification strategy by moving into the fan, heater, and hand dryer markets. The Dyson company has also invested heavily in creating a brand identity for all of its products that is based on them being of a higher quality than those of the competitors.

(d) Explain why the Dyson company would use both product development and product diversification as growth strategies. [4]

Figure 2: The Dyson upright vacuum cleaner

EXAM QUESTIONS

2017

3. Read the case study. Answer the following question.

The Mode:Flex is an electric powered bike (e-bike) developed by an employee after a call for innovation by the Ford Motor Company. See Figure 3.

The Mode:Flex e-bike has a lightweight frame constructed from carbon fibre and aluminium, which can be folded for easy transport and storage.

The drive system comes from a front hub mounted motor with a lithium-ion battery concealed in the frame giving a range of up to 52 miles (84 Km) on a full charge. It has a highly efficient transfer of energy from the pedals to the hub, compared to the traditional bicycle chain design. It requires very little maintenance.

The cyclist can select "Sporty", "Economy", and "Comfort" modes from the handlebar display unit shown in Figure 4.

Figure 3: The Mode:Flex electric powered bike (e-bike)

Figure 4: A handlebar display unit.

EXAM QUESTIONS

Question 3 continued

Sensors monitor the patterns of the cyclist's pedalling and transmit this information to a control unit. The control unit determines whether the electric motor is used and synchronises the power of the electric motor with the power of the rider's leg muscles. This information can also be transmitted through the Mode Link app* to the user providing him/her with fitness data. The app also communicates the location of the cyclist and communicates with city wide information systems to provide bus or train times, the location of the nearest car park (parking lot) and weather information.

The Mode:Flex e-bike has been developed using the principles of sustainable innovation rather than sustainable design.

* app: application software, typically small, specialized programs downloaded onto mobile devices; apps can also run on the internet, on a computer, or on a cell/mobile phone or other electronic device.

(b) List two ways in which the concept of a product family can be applied to the Ford Mode:Flex e-bike. [2]

(c) Describe how Ford might be meeting their corporate social responsibility objectives through the Mode:Flex e-bike. [2]

EXAM QUESTIONS

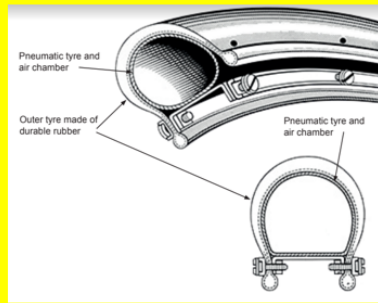3. Read the case study. **Answer the following question.**

In 1889, Édouard Michelin took over a company that made farm machinery and rubber balls and renamed it Michelin et Cie. After a chance meeting with a cyclist, he developed the first pneumatic (air-filled) bicycle tyre (see Figure 3 below), which was used in a long distance race in 1891.

Following the success of this tyre, Michelin developed a pneumatic tyre for a car that was used in the Paris–Bordeaux–Paris race of 1895.

Although the newly patented tyres were perceived as a major development, the market for them was very small as there were few motorists on the road.

In 1900 the Michelin brothers decided to promote the excitement and romance of travel by car by producing travel guides and maps. The guides contained information on places to visit, obtain fuel, accommodation and good food. The guides were given away for free and quickly became popular.

EXAM QUESTIONS

Question 3 continued

A further development was the Michelin star (*) rating which grades restaurants with one, two or three stars based on the standard of food from very good to outstanding. A Michelin star is very difficult to achieve and is highly prized by restaurants around the world.

The Michelin Man (Figure 5) is one of the world's oldest trademarks, originating in 1898, and has evolved over time.

Today, Michelin produces 10 million maps and guides each year which are sold in 170 countries. Michelin also spends in excess of $700 million each year on research and development (R&D), employing 6000 people in this area alone.

Figure 4 shows an illustration of the Michelin brothers gaining inspiration for the Michelin Man trademark from a stack of tyres in 1898. Figure 5 shows the Michelin Man (Bibendum) trademark.

(e) Discuss how Michelin has used market penetration, product development and product diversification as growth strategies to develop its market over the past 125 years. [9]

9.2 Market sectors and Segments

ESSENTIAL IDEA
Designers must research and consider the target market sectors and segments in the design of their product

NATURE OF DESIGN
Designers must consider the market when targeting their product, service or system. The smaller the sector, the more the target audience will have in common. Companies may decide to compete in the whole market or only in segments that are attractive and/or familiar. A designer's understanding of the identified market is essential.

AIM
By identifying the market sectors and segments a product will be designed for, a designer can gain data directly from the perspective of the potential consumer.

Concepts and principles:
- Categories of market sectors
- The influence of market sectors
- Classifications of consumer market segments: income, profession, age, family, values, behaviour
- The development of a product family

Guidance:
- Broad categories of market sectors include geographical sectors focusing on values, culture and characteristics of purchasers in a particular region and purchasing power; client-based sectors focusing on consumers, industrial, public sector and commercial
- How companies take into account market sectors in the design and manufacture of products
- Examples of products designed for only one sector and products designed to be sold to more than one sector
- How the needs of the market segments listed impact on the design of products and scale of production
- Examples of product families

Categories of market sectors

Market Sector: *A broad way of categorizing the kinds of market the company is aiming for.*

Categories of market sectors - Designers need to clearly be able to identify the needs of the target market and target audience. These can be classified into two categories:

Geographical sectors, *which focus on the values, culture and characteristics of purchasers in that region along with purchasing power* Consumer needs vary between climatic regions where block heaters are used in Canada which would be of little use in Egypt

Client-based sectors, *which may focus on consumers, industrial, public sector and commercial. Watchmakers target specific income groups when developing their high end products.*

*Block heaters for cars*

Tissot vs Swatch Watch – Client based sector

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Notes / Activities

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Classification of consumer market segments

Market segmentation: Markets divided into smaller segments where purchasers have similar characteristics and/or tastes.The fact that the consumer market is divided in segments allows companies and organisations to develop promotional campaigns targeting specific segments.

Use the The Market Segmentation Study Guide:

https://www.segmentationstudyguide.com/understanding-market-segmentation/market-segmentation/
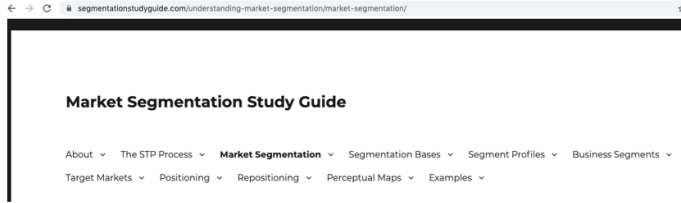
Market segmentation is the first step in defining and selecting a target market to pursue. Basically, market segmentation is the process of splitting an overall market into two or more groups of consumers. Each group (or market segment) should be similar in terms of certain characteristics or product needs.

Classification of consumer market segments

MARKET SEGMENTS			
Geographic	**Demographic**	**Psychographic**	**Behavioural**
Continent	Age	Lifestyle	Occassions
Country	Gender	Social class	Degree of loyalty
Country region	Family size	Interest	Benefits sought
City	Occupation	Activity	Usage
Density	Income	Opinion	Buyer readiness
Climate	Education	Personal values	User status
Population	Religion	Attitudes	
Subway station	Race		
City area	Nationality		

http://www.youtube.com/watch?v=luEQUFWJ6oY
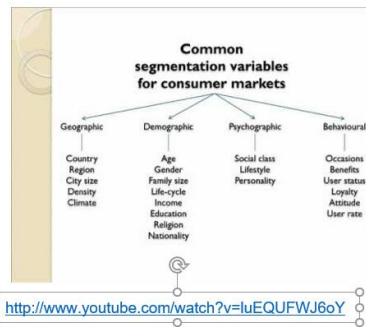
Difference between market sector and market segment

Market sector is a broad way of categorising the kinds of market the company is aiming for. The sectors have similar characteristics such a technology, utilities, telecommunications etc

Market segment is dividing up the markets into smaller segments targeting customers that share characteristics.

They interact with one another by nature of their characteristics. Technology sector would govern who the segments are targeting, i.e. early adopters, gamers, etc. This in turn could influence the direction of the companies in the sector head.
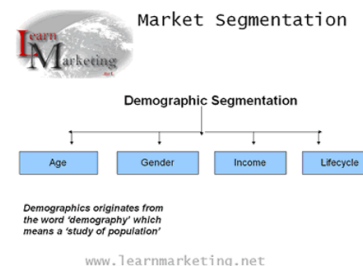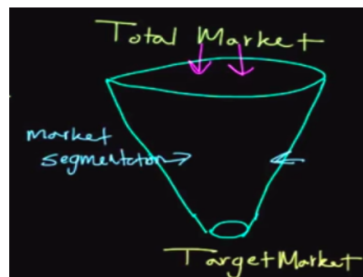
MacDonald's Segmentation

http://www.youtube.com/watch?v=tKOITmV0NfU

Activity: Example of Market Segmentation

Explain How does geographics influence the design / marketing of these two products?

Example of Market Segmentation

How does market segmentation influence the design of these products?

Development of a product family

If a designer / manufacturer has a success with a particular product and consumers become familiar with it and trust the product and brand the designer / manufacturer make take the opportunity to create associated products which will start to form a product family. This can be a successful initiative and is used by many designers and manufacturers. If a consumer has a good experience with a particular product they are more likely to purchase another associated product from the same manufacturer.

A group of products that have a common classification criteria. Members will normally have many common parts and assemblies

Mercedes Benz cars- an example of a successful product family

Product Family - Apple products

Development of a product family

Product family: A group of products having common classification criteria. Members normally have many common parts, assemblies and/or aesthetic elements.

Companies and designers will develop a successful product or product range into product families. This further develops a successful market segment that is already familiar with the original product.

Designers often develop product families to extend a successful product range and to develop products for market segments that are already familiar with the original product.

MALM series

Ikea MALM series

MALM
Bed frame, high, w 4 storage boxes

MALM
Chest of 6 drawers

MALM
Chest of 3 drawers

MALM
Chest of 4 drawers

INTERNATIONAL MINDEDNESS

Two broad categories of market sectors are geographical- and client-based, with specific segments varying greatly.

"Growing up as a woman in Pakistan, artist Anila Quayyum Agha was excluded from mosques, religious centers of community and creativity. It was a seminal experience that greatly influenced her work. Recently, Agha transformed the Rice University Art Gallery into her own sacred space, open to all. With designs inspired by the Alhambra, a palace in Spain, Agha uses light to cast stunning, intricate shadows on the walls and on gallery visitors. In this short from Walley Films, see the incredible installation and hear why the Alhambra served as the perfect metaphor of union.

http://www.youtube.com/watch?v=lj0TnkAqsts

THEORY OF KNOWLEDGE/PPS

Gaining information on market sectors often employs many of the methods of gaining knowledge most closely associated with the human sciences. What are these methods of gaining knowledge, and how do they compare to the methods used in the natural sciences?
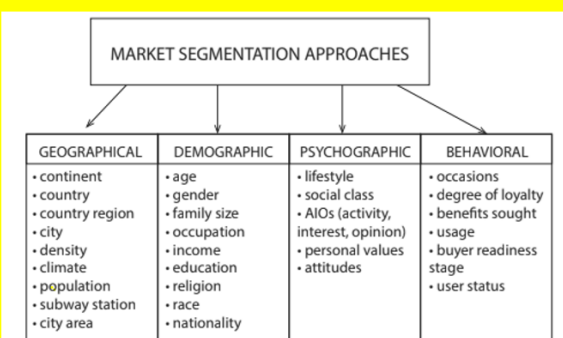
GUIDING QUESTIONS

1. Compare market sector with market segment
2. List how consumer market segments are classified
3. Give an example of a company that has taken into account market sectors in the design and manufacture of its products
4. Give an example of a product designed for only one sector and a product designed to be sold to more than one sector
5. Give an example of a product family
6. Explain how the needs of different market segments impact on the design of products and scale of production

EXAM QUESTIONS

2016

29. Figure 12 shows four different approaches to market segmentation.

GEOGRAPHICAL	DEMOGRAPHIC	PSYCHOGRAPHIC	BEHAVIORAL
• continent	• age	• lifestyle	• occasions
• country	• gender	• social class	• degree of loyalty
• country region	• family size	• AIOs (activity, interest, opinion)	• benefits sought
• city	• occupation	• personal values	• usage
• density	• income	• attitudes	• buyer readiness stage
• climate	• education		• user status
• population	• religion		
• subway station	• race		
• city area	• nationality		

Which category shown in Figure 12 would be the most appropriate way to segment the market for a family car?
A. Geographical
B. Demographic
C. Psychographic
D. Behavioral

21

EXAM QUESTIONS

Figure 2: The Dyson upright vacuum cleaner

Nov 2016

2. In 1993, James Dyson launched the production of the first range of vacuum cleaners based on a new technology known as dual cyclone technology. Figure 2 shows an upright vacuum cleaner.

Upon the success of this product, the Dyson company continued developing new vacuum cleaners, such as cylinders, cordless, and hand-held in order to maintain its market-leading position.

At the Dyson company, product development is not the only growth strategy. It has adopted a diversification strategy by moving into the fan, heater, and hand dryer markets. The Dyson company has also invested heavily in creating a brand identity for all of its products that is based on them being of a higher quality than those of the competitors.

(b) Outline why the Dyson company would use market segmentation as part of its product development strategy. [2]

EXAM QUESTIONS

3. The image on the right shows a earth moving machine manufactured by JCB. JCB have manufactured earth clearing equipment for many years. Recently, JCB started manufacturing a very tough type of smartphone (image on the right) aimed primarily at the same people that use their machines.
Explain how the needs of the markets segment impacted on the design of the product [3 Marks]

EXAM QUESTIONS

4. The image shows the Hille Stacking chair, designed by Robin Day in 1963. The Product family is available in 6 different heights and 13 different colours, and consists of an injection moulded polypropylene seat, mild-steel tubular frame, nylon feet, and stainless steel screws which are used to attach the seat to the frame.
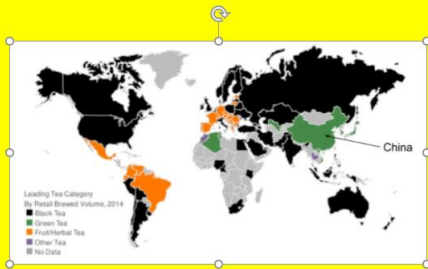Explain the benefit of a product family to the manufacturer [3 Marks]

EXAM QUESTIONS

5. The map shows the consumption of different types of tea according to geographic location. The image shows KitKat Green Tea Flavour which was launched in many parts of Asia in 2000.

Outline why companies take into account market segments in the design and manufacture of products
[2 Marks]

Kahoot - topics 9.1 and 9.2

https://create.kahoot.it/v2/share/9-1-and-9-2-revision-questions/5146aca2-0155-4f94-9432-34476e736299

9.3 Marketing Mix

ESSENTIAL IDEA
The marketing mix is often crucial when determining a product or brand's offering.

NATURE OF DESIGN
Empathy for, and understanding of the target audience is developed through thorough analysis of the market chosen. This informs several factors: the standards that end users demand; how and where to distribute and sell the product; how much they are willing to pay for a certain product and its quality; and how to communicate the launch of a product. Correct analysis of these factors could determine the success or failure of a product, despite its quality

AIM
Marketing is often a new area for designers to consider. Exploring unfamiliar aspects of innovation improves their understanding of the market needs of the products they are designing.

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AIM
Marketing is often a new area for designers to consider. Exploring unfamiliar aspects of innovation improves their understanding of the market needs of the products they are designing.

Notes / Activities

Marketing Mix

The **"marketing mix"** is important to the standards the end users demand; how and where the product will be used, how it will be distributed and sold and how much the consumer is willing to pay for a certain product and quality, and how the product will be communicated or launched.

Correct analysis of these factors could determine the success and failure of a product, despite its quality.

http://www.youtube.com/watch?v=JIirzTdaey4

Marketing Mix

The **"marketing mix"** involves 4 variables or 4 P's which are product, place, price and promotion. A company will through market research using these variables so the designer has an accurate brief of the requirements of the market. Helps to develop a marketing strategy.

Product: Precise targeting is imperative to meet the needs identified in the market. The variables in this field are: Quality, Design, branding, packaging, warranties, etc

Place: refers to the location where the product can be purchased ranging from physical stores through online stores. Some variables are distribution, delivery, Retail Locations and Logistics.

Price: price must be considered relative to perceived product value and the niche market targeted. Variables include: list price, discounting, payment methods and terms of credit.

Promotion: deals with informing potential customers of the availability of the product, its price and its means of availability. Variables in this field include direct marketing, discount sales, advertising, package deals and special offers.

Activity: How does this relate to your design project (AI)? Can you use the 4 P's to plan your scale of production in criteria F?

Trigger products versus Incremental products

Trigger products attract consumers on their own merit for the function and performance required to carry out basic tasks most consumer require.
The example shown the kitchen aid comes with different mixing blending attachments that suit most consumers and they are happy to pay the initial cost of the product.

Incremental products are available to engage consumers in purchasing add-ons. For example the same kitchen aif shown in the trigger product as a range of add-ons that enable a wider range of functions and performances.
These high margin add-on purchases are rarely considered by customers when making the initial purchase decision.
Independently these incremental products have little or no intrinsic value as they can only be used by the same brand.

Trigger product	Incremental products

Product

Careful analysis of the market and competing products is vital to understand the niche or point in the market your product or image of products will sit.

Competitor analysis is vital
- Which competing products are most successful?
- Why?
- Which competing products are least successful?
- Why?
- What features do competing products have?
- Are all features tangible?
- Can the intangible features be described?
- How are competing products sold?
- How are competing products supported by the retailer / manufacture?

Key questions
- What is the product?
- What does it do?
- Is the product for a specific market?
- What features do competing products have?
- How is it packaged?
- Does the product need to comply with any form of standardisation?
- What is the USP (Unique Selling Point)?

Product and standardisation

Product Standardisation "The process of setting generally uniform characteristics for a particular good or service. The role of legislation is to guarantee quality assurance for the benefit of the consumer not matter the product source.
Children's toys are a good example of individual governments providing legislation to reduce potential risks to the end user. Find out more about toy safety in the EU
https://ec.europa.eu/growth/sectors/toys/safety_en

EU Standard

Product and standardisation

The standardization of products is perform in three ways …

1. Government standards for a particular market segment:
Is where a governments sets standards for products. For example in Europe that need to set a Health and Safety standard for a product as not to harm the user.
It is the CE mark on most electrical devices.The CE mark can be used in other countries such as China. Take a look at your mobile phone

2. Component standardization:
Is where a part standardised,e.g. USB ports or plugs, so they can be used in different or similar products, such as memory sticks or computer

3. Industry-wide standards
For a period architects and engineers would ask steel companies for all sorts of sectional beams for buildings.
This became inefficient and expensive.So the steel industry in agreement with the architects and engineers developed a limited range of sectional beams.
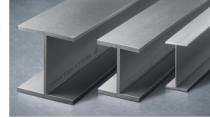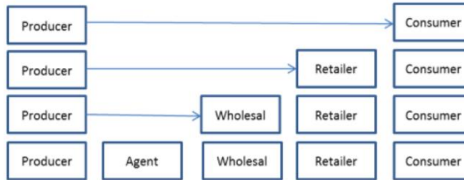
Place

The location of the product where it will be sold that is convenient for the customer. What are the implications of internet selling for a company in relation to its supply chain and distribution network ? Overheads (rent, capital, land) are reduced. Companies will only carry little stock and place orders through suppliers on a needs only basis.

Key questions
- Where will this product be sold, geographically /physically?
- Who will sell it?
- How will it be sold?
- How will the product get to the point of sale?

Channels of Distribution
Refers to the means used to get a product to the consumer. Intermediaries are used as the 'middle-man' to facilitate this. Traditional intermediaries are **wholesalers** who purchase large amounts of stock from the **manufacturer**, then the products are distributed to **retailers** who then sells the products to the customers.
But since the appearance of the Internet, many companies choose to make sales over the internet.

Producer				Consumer
Producer			Retailer	Consumer
Producer		Wholesal	Retailer	Consumer
Producer	Agent	Wholesal	Retailer	Consumer

Place

The location of the product where it will be sold that is convenient for the customer. This could be:

Bricks and Mortar: physical location such as a store. Boutique, chain, super or hyper makes, etc

Advantages	Disadvantages
You can try/Touch/See IRL	Commute to the store
Find similar products nearby	Time for travel and shopping around

Online internet: Like Amazon. Companies need to ensure/plan for a supply chain and distribution network. If the supply chain breaks time it will delay the delivery the product to the customer.

Advantages	Disadvantages
Convenience: You can shop anywhere	Shipping time and costs
Possibly lower prices	Return if the item is not what ou expected
	Cost incurred for returns

Hybrid Model: There is a shop front perhaps in a mall but they also have an online presence as well, Direct from the manufacturer

Pricing strategies Setting Price

An extremely important aspect of marketing a product is setting the correct price that will attract consumers to make a purchase while generating profit. Without getting the balance right, a company can quickly find that they are losing money through lack of sales or through lack of profit generation. The following strategies for setting price can be used

There are 4 types of pricing strategies: demand, competitor-based, product line, and psychological pricing.

Key questions
- What is the Pricing strategy to be used?
- Where is the product on the product life cycle?
- Is the product new to the market?
- How are competing products priced?
- Is the product already established in the market?
- Is the product a pioneer / unique?

It's very common to see the number 9 at the right end of a price tag. Why is this? Lauren explains the psychology of prices and nines in this episode of BrainStuff.

Pricing strategies Setting Price

Cost-plus
This is where a company will add a percentage to the total costs for a product as a profit margin.
Total costs include: production/manufacture, design, distribution etc
Example: If the total cost of the product is $500 and the company wants a 10% profit then the final cost for the consumer would be $550.
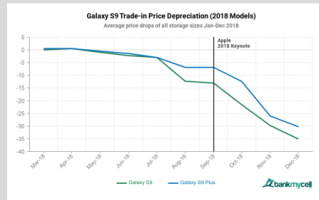

Demand Pricing
Is where a a company sets the price according to the demand for the product
Initially the price will be high to maximise profits. If demand increases then the price will be lower to diffuse into the wider market.
Examples include smartphones like the IPhone or gaming consoles.

Competitor pricing
Is based on the common market price as charged by competing firms.
Companies can offer an incentive of price match to consumers.
Predatory pricing is a variation of this where firms deliberately undercut competitors to secure

Pricing strategies Setting Price

Product line pricing
Companies offer a range of upgrades, enhancements or options to a primary product.
Examples include motor vehicles where add ons as metallic paint, alloy wheels, or window tinting make the product more expensive.
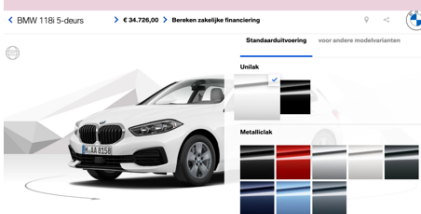
Psychological pricing
Where a product is priced to give the impression that it is paying less. For example, pricing at €1.99 instead of €2 i.e. making a price look better.

Promotion: advertisement, publicity and personal selling

When selling a product, promotion is another key aspect. Depending on the nature of a product, its position within the product life cycle among other reasons, the forms of promotion can be different. These include:

Advertising – an audio or visual form of marketing communication
Publicity – giving out information about the product
personal selling – Door-to-door salesman, market stalls,

Key questions
- How will the product be promoted?
- What media will be used?
- How are competing products promoted?
- Above the line / below the line promotion.
- How much can the business afford
- Will the proposed method reach the target market?

Above the line	**Below the line**
Costly methods such as a billboard, magazine ad, radio, internet adds, flyer distribution or TV advertising.	More economical such as point of sale displays, product packaging, distribution vehicles, window advertising, email

INTERNATIONAL MINDEDNESS

When developing marketing campaigns, companies take account of different cultures and sectors in the target market.

McDonald's ADS
different countries

HSBC shows they have understanding of cultural differences.

THEORY OF KNOWLEDGE/PPS

Some advertisers emphasize the "science" behind their products. Does this suggest that some people may see scientific knowledge as being more reliable than knowledge in other areas of knowledge?

Page 265

GUIDING QUESTIONS

1. (a) List what the 4Ps stand for.   (b) Briefly explain what each P means.
2. Explain why Product Standardisation is beneficial to the consumer.
3. Explain briefly why the EU (European Union) has banned vacuum cleaners with a power rating above 1600 watts and outline how this might affect designers and manufacturers, and benefit consumers.
4. Provide two examples of component standardisation
5. Carry out some research into the Kitemark and explain the advantages of this type of standardisation to both the manufacture and the consumer.
6. Consider your Smartphone and the protective case. Which one is the Trigger and which one is the Incremental product?
7. Give another example of a trigger and a incremental product.
8. Consider the following products and identify which of the 3 distribution strategies above have been used
(a) The fruit and vegetables you buy in a fresh market (not a supermarket)
(b) A single can of baked beans
(c) A wedding dress
9. Define Cost-plus pricing strategy and give an example of a product that has used this strategy
10. Define Demand Pricing strategy and give an example of a product that has used this strategy
11. Define Competitor Pricing strategy and give an example of a product that has used this strategy
12. Define Product Line Pricing strategy and give an example of a product that has used this strategy
13. Define Psychological Pricing strategy and give an example of a product that has used this strategy

EXAM QUESTIONS

2019
30. Which of the following are in the 4 Ps marketing mix?
I. Product
II. Packaging
III. Place
A. I and II
B. I and III
C. II and III
D. I, II and III

33. Which of the following is a pricing strategy where a company will add a percentage to the total cost of a product?
A. Demand pricing
B. Competitor-based pricing
C. Cost-plus pricing
D. Psychological pricing

EXAM QUESTIONS

2018
30. Product and Promotion are two factors of the four Ps involved in "Marketing mix".
What are the other two Ps?
A. Price and profit
B. Place and profit
C. Place and price
D. People and profit

2017
31. A toy retailer sells many of its toys with prices such as $3.99, $5.99, $9.99 or $19.99.
What pricing strategy is the retailer using?
A. Cost-plus / mark-up
B. Demand
C. Premium
D. Psychological

2016

31. Which price setting strategy would ensure that a manufacturer covers his/her costs of production?
A. Product line pricing
B. Psychological pricing
C. Cost-plus pricing
D. Demand pricing

EXAM QUESTIONS

1. The image shows an advert Identify the type of pricing strategy shown [2 Marks]


Award one mark for identifying the pricing strategy and one mark for the explanation
- Psychological pricing, the product is priced to give the impression the consumer is paying less.
- For example, pricing at 0.99 instead of €1 i.e. making a price look better.

EXAM QUESTIONS

2. The image shows a chart which shows the impact price has on demand.
Explain why a company might use a demand pricing strategy [3 Marks]
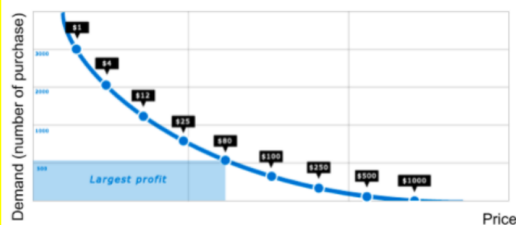
Award 1 mark for explaining what is the demand pricing strategy and 1 mark for giving one example and 1 mark for linking it to the graph
- Demand pricing Is where a company sets the price according to the demand for the product
- Eg. Initially the price will be high to maximise profits and when demand increases then the price will be lower to diffuse the product into the wider market
- As you can see in the graph when demand increases the price changes from 1.000 to 1dollar

EXAM QUESTIONS

3. The image shows Amazon's warehouse near London in the UK, where goods are dispatched after they are ordered online. The other image shows the interior of a shop called Currys, which sells electronic consumer goods. There are 295 Currys shops all over the UK. Compare the supply chain and distribution network of these two retailers [6 Marks]

EXAM QUESTIONS

4. The images show a sales woman in a shop and billboard advertisement.
Compare and contrast the advantages and disadvantages of these two different types of promotion [6 Marks]

9.4. Market Research

Concepts and principles:
- Purpose of market research
- Consumers' reaction to technology and green design, and subsequent impact on design development and market segmentation
- Market research strategies

Guidance:
- The purpose of market research includes idea generation and development; evaluating market potential and economic trends; collecting data relating to demographics, family roles, consumers; identifying suitable promotional strategies; considering technological trends and scientific advances
- Market research strategies include literature search, expert appraisal, user trial, user research, perceptual mapping and environmental scanning
- Advantages and disadvantages of each market research strategy considering the nature, reliability and cost of the research and importance to the design developmental process

Aims:
Often designers will work on projects that have new and radically unfamiliar contexts. This will deepen their understanding of market research, equipping them with a range of tools and skills that they can employ in many areas of life and empowering them as lifelong learners.

Nature of Design:
Market research often identifies how to improve the product, service or system and increase its chance of success within a particular sector or segment. The price a user is prepared to pay is usually determined through market research. This in turn sets an upper limit of cost to the design and production of a potential product, service or system. Market research has a crucial role in determining the constraints a designer has to work within.

Theory of knowledge:
What are the assumptions that underlie methods used to gain knowledge in this area?

Market Research Purpose

The purpose of market research includes idea generation and development; evaluating market potential and economic trends; collecting data relating to demographics, family roles, consumers; identifying suitable promotional strategies; considering technological trends and scientific advances

Idea generation and development

Market Research: The systematic gathering of data about individuals or organisations using statistical analysis and techniques to support decision making.

To achieve quality results two major methods of data collection are required

Primary Data
Data observed or collected directly from first-hand experience. Large Scale Primary data collection can be very costly but vitally important and more accurate than secondary data.

Secondary Data
Published data and the data collected in the past or by other parties. Secondary data can be very valuable especially in terms of demographics, ergonomics and overall market analysis.

Costly & Time consuming but vitally important
Although the cost of quality research can be high and time consuming ultimately the final product will benefit immensely from the input from a diverse range of stakeholders. The product must fit the target market consumer in all areas if it is to have any chance of commercial success.
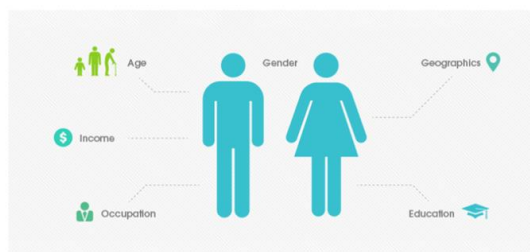
Demographic data

Types of Data

Designers use a range of data types to conduct their research. Each type of data has applications, advantages and drawbacks; As such, it is import to understand the differences, and how they can be used to drive design decisions.

Qualitative and Quantitative Data

Quantitative Data is data that be recorded as a number of value. This is data that measures the physical properties of a design, or user's needs or performance requirements.

Qualitative Data is data abut the quality or aspect of the thing being measured. Usually, for designers, this is data about how something looks or feels, what people think or feel about it, or what people's opinions are.

Quantitative research

Data Driven

Numbers & percentages

Concrete & objective

HOW MUCH?   HOW MANY?

Qualitative research

Design Thinking

Quotes & expressions

Abstract & subjective

WHY?   WHAT?   HOW TO FIX?

Purpose of market research

Market research helps the designer build an understanding of the market and users, with the goal of identifying a need and developing the best possible solution.

Market research might be done to understand the following aspects of the design context:

- **Determine the market need** for a product by understanding the needs of the users.

- **Identify promotional strategies** that would be best suited to the target audience.

- **Analyzing existing products** can provide valuable information about how the design opportunity is being met. More importantly, careful analysis can reveal aspects of the design opportunity that are not being met by the existing designs. Analysis also provides information to guide how the produce is being designed and targeted towards different demographics, price points, etc.

● **Determine the market potential** for a product, and at what stage in the product lifecycle it should be introduced.

● **Collect demographic data** to understand the age, gender, location, etc., of the target audience. By understanding key demographic data about the audience, the designer can focus their design.

● **Collect information about consumer trends** and how these might influence the direction of the design. For example: greater consumer awareness of plastics in the ocean may indicate a need for a product that mitigates or eliminates plastic consumption or addresses the problem of plastic in the ocean more directly.

Market Research Strategies

Literature search.
The use of consumer reports, newspaper, magazines, encyclopaedias, manufacturers information, etc. To conduct research.

Expert appraisal.
The reliance on the knowledge and skills of an expert in the operation of the product.

User trial.
The observation of people using a product and collection of comments from people who have used a product.

Market research strategies include literature search, expert appraisal, user trial, user research, **perceptual mapping** and environmental scanning

User research.
Obtaining users' responses through questionnaires/surveys and interviews.
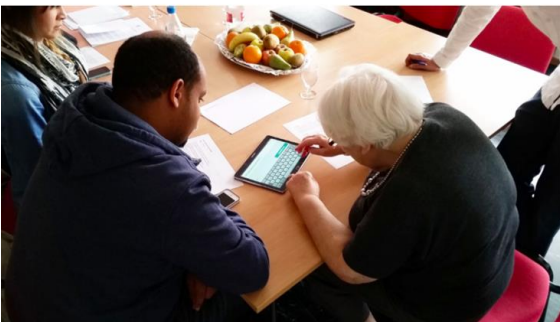

Perceptual mapping.
A tool to quickly compare a product to others in the market in a graphical representation
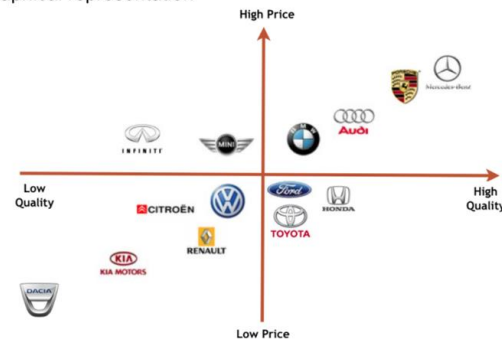
Environmental scanning.
The study and interpretation of the political, economic, social and technological events and trends that influence a business, industry or market.

Describe the advantages and disadvantages of each strategy

Literature Search

Secondary Research

Data: Qualitative and Quantitative

This is the research and review of scholarly articles, newspaper and magazines, books, and other publications.

Advantages: Many sources available; Relatively easy to access online and offline; Variety of data sources and types available.

Disadvantages: Many sources can make research time consuming.

User Research

Primary Research

Data: Qualitative

This is the collection of users' opinions through surveys and questionnaires. It may or may not involve people who have actually used the product. It is largely focused on gathering people's perceptions about the product.

Advantages: Very quick and affordable to implement.

Disadvantages: Questions need to be carefully constructed in order to gather meaningful data.

Expert Appraisal

Primary Research

Data: Qualitative

An expert is someone who is uniquely qualified based on their skills and experience, to give feedback on a design. An expert might be a "super-user", engineer, designer, or other person with unique and specialized knowledge. Their opinion and observations about a product or design would address aspects that a regular user might not consider or be aware of. For example, a material scientist might give feedback as to how the use of a certain type of plastic is better suited for mass production of a tool handle, while the target user might not comment or consider this aspect of the design.

Advantages: Detailed knowledge can be extremely useful to the design context.

Disadvantages: Expert may be biased; Difficult to locate an expert.

User trial

Primary Research

Data: Qualitative

User trials involved the observation of people using a product and the collection of qualitative data from them about their opinion of the product. It is done with people who are actually using the product (compare with User Research)

Advantages: Easier and cost effective as the trials can rely on observation and surveys.

Disadvantages: Users may have a wide range of opinions, and may use a product in very different ways, which may make it difficult to analyze or draw conclusions.

Notes / Activities

Product Analysis

Primary Research

Data: Quantitative and Qualitative

Analysis of existing products in order to compare and determine aspects such as: key features, form, materials, performance characteristics, function, ergonomic factors, manufacturing techniques, and cost. In some cases, products may be disassembled to gain a deep understanding of the materials, components, and manufacturing techniques.

Advantages: Identify key aspects of competing products in the product category; Determine essential features for the intended product; Identify design opportunities

Disadvantages: May not be possible to analyze all aspects of all products; Secondary data only possible if data is gathered via literature, online, etc. Gathering of primary data can be expensive and time consuming as examples of each product need to be purchased.

Perceptual Mapping

Primary Research

Data: Qualitative

Perceptual mapping is a digram that shows customers perceptions of a product, or aspect of that product. This diagram is created by first interviewing or surveying customers about a product. Using this data, a perceptual map is created showing how people perceive the product. Next, this map is used to identify gaps in the market that could be filled by the product. Marketing and promotional strategies would then be directed to that gap.

Advantages: Quick and (relatively) easy to construct; easy to identify gaps in the market; Effective visual communication tool.

Disadvantages: Can be biased due to its subjective nature

Consumer perception by price and quality

HIGH PRICE

Mercedes-Benz
Porsche
Audi
BMW
Mini

LOW QUALITY — HIGH QUALITY

Volkswagen | Ford | Honda
Toyota
Kia

beamery

LOW PRICE
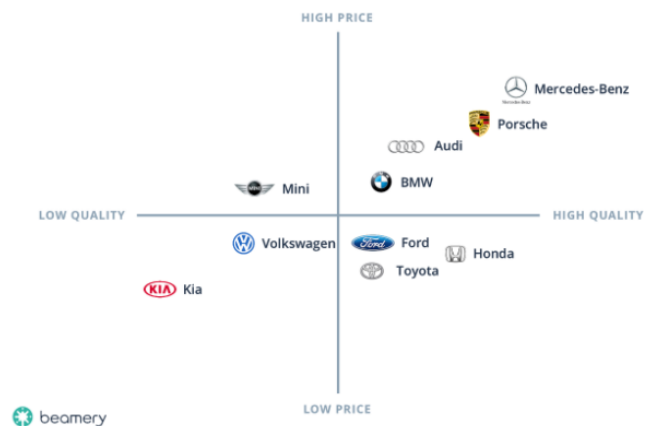
https://rockstarsbm.wordpress.com/2014/11/23/perceptual-maps/
Marketing audit of Renault and Volkswagen by Sebastien Bellanger

Consumer Reactions

Green design
Consumers' reaction green design, and the subsequent impact on design development and market segmentation

Also consider these terms:
Bright Greens (34%),
**Green Motivated** (10%),
Green Hypocrites (26%),
Green Ignorants (19%)
Dull Greens (11%)

What is the impact of these consumer reactions on design development? On market segmentation?

Green Design: Designing in a way that takes account of the environmental impact of the product throughout its life.

Technology
Consumers' reaction to technology, and the subsequent impact on design development and market segmentation
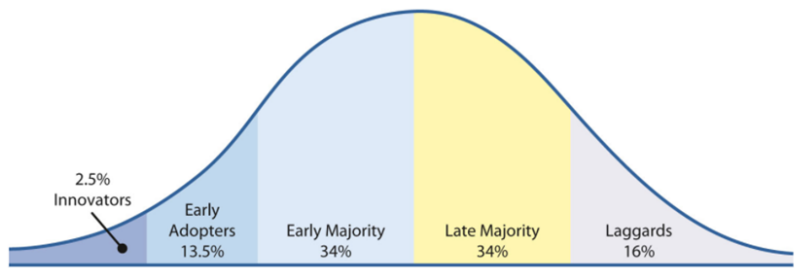
Innovators. The first individuals to adopt an innovation. They are willing to take risks.

Early adopters. The second fastest category to adopt an innovation.

Early majority. The third fastest group to adopt an innovation, tends to take more time to consider adopting new innovations and is inclined to draw from feedback from early adopters before taking the risk of purchasing new products/systems.

Late majority. The fourth fastest group to adopt an innovation. They do so after it has been established in the marketplace and are seldom willing to take risks with new innovation.

Laggards. The last to adopt an innovation. They tend to prefer traditions and are unwilling to take risks.

What is the impact of these consumer reactions on design development? On market segmentation?

Notes / Activities

9.5 Branding

ESSENTIAL IDEA
Branding creates an identity for a product or company which makes it distinct from another and van provide added value.

NATURE OF DESIGN
In order to diffuse products into the marketplace, the identity of a company is typically embodied in a brand. The brand is communicated to the consumer through a value proposition. Designers help to communicate this by: building a strong user experience around the brand identity; determining content design; establishing the tone of message through advertisements; promotion.

AIM
A brand encapsulates the identity of a company and its products. The brand designer needs to ensure that the message of a company is communicated clearly and creatively to allow them to stand out from the competition.

Principles and Concepts

Concepts and principles:

Brand loyalty
How brands appeal to different market segments
The difference between a trademark and registered design
The implications for a company of positive and negative publicity on brand image
Contribution of packaging to brand identity
Effects of product branding
Evaluating the global impact of branding

Guidance:

Examples of positive and negative effects of product branding on different market segments
Examples of products affected by branding on a global scale

Notes / Activities

Creating a brand for a client

What is branding?

Is the marketing practise of creating a name, symbol or design that identifies and differentiates a product from others products.

A brand puts a face and a name on a product. Simply is a company or product promise to its customer. It tells them what they can expect from their products and services, and it differentiates what it is offering from that of it's competitors

Meet the designers of Prime Studio, a product and brand consultancy business

Brand loyalty

A brand is a type of product manufactured by a particular company under a particular name. The company name of the organization can also serve as a brand. E.g. Lego, Nestle, Dyson, Apple

Brand loyalty When a person has the tendency to favour one supplier over others for the same product. For example people who just tend to stick with Apple products- not even look at/consider alternative choices.

Brand loyalty

Brand loyalty is a result of consumer behaviour and is affected by a person's preferences. Loyal customers will consistently purchase products from their preferred brands, regardless of convenience or price. This is based on perception where the consumer will continue to repurchase the product as it is perceived to be superior to its competitors.

Companies will often use different marketing strategies to cultivate loyal customers, be it through loyalty programs (i.e. rewards programs) or trials and incentives such as samples and free gifts.

Examples of brand loyalty

- Coke vs Pepsi
- Apple Mac vs Windows PCs
- MacDonalds vs Burger King
- iPhone vs Android/Samsung

BRAND LOYALTY

by Daily Deal Builder

How brands appeal to different market segments

Brands are constantly battling for position within different segments of the market. These segments all have different features for example the sportswear and sports casual clothing market. Nike produces clothing for many mainstream sports in very different segments. The way it treats football product consumers is very different to the way it treats consumers of golf equipment.

Marketers pride themselves on being able to identify the traits of specific market segments and pitch their product precisely to meet the needs of the identified group.

http://www.youtube.com/watch?v=rTqyiGswXuI

This video explains how Market Segmentation links with the Qantas case study

How brands appeal to different market segments

Companies and brands often choose to target more than one segment. This practice is called multi-segment marketing. A variety of strategies can be used. Here are three examples:

Selling the same product over multiple market segments based on universal or mass market appeal. Product is designed to meet the needs of all the members in the target group. E.g. Apple Phone	A range of product lines may be developed within a brand to appeal to a range of market segments. Eg. Food manufacturers may offer healthy, organic, dietary specific or frozen alternatives	Tweaking existing products to cater for multiple markets eg. Cultural variations – McDonald's

Difference in trademark and registered design

A **trademark** is any sign which is capable of being represented graphically and which distinguishes the goods and services of one undertaking from those of another. Typically a trade mark will comprise a word, logo, or picture, but can also extend to sounds, shapes and colour. e.g. Nike swoosh logo, 'Just do it' .

A **registered design** is protection given to the outward appearance of a product or part of product.The shape or appearance of a product is often what is most easily recognised by a customer. Registering a design prevents it being used by someone else for their product.

A patent can only be used to protect the function of a product, whereas a design is used to protect how the product looks. Designs should be used to protect products that have a new look and can be filed in conjunction with patent applications if the product also has a new function.

Publicity on brand image

Positive or negative publicity from one product can have an impact on the whole brand. If one product does badly, consumers may have a bad impression of the brand. This will discourage consumers from purchasing from this brand in the future.

Positive impact
Positive publicity can help in sales and use of products, services and brands as it portraits them as useful and encourages the use of them. Examples of positive publicity are celebrity endorsements, expert recognition, good reviews and advertisements.

The Chinese First Lady was praised on Chinese social media for wearing fashion designs by Ma Ke on her first official overseas trip in 2013. Sales of the Ma Ke's brands increased dramatically.

Good reviews

Negative Impact
Negative publicity shows products, services and brands in a negative light and discourages the use of their products. They came from a bad review or even an unexpected event.

The Volkswagen emissions scandal (also known as "emissionsgate" or "dieselgate") found that Volkswagen had intentionally programmed specific engines to fool emissions testing systems. The scandal wiped 30% of value from the VW company.

Activity

Find a company that has had negative or positive publicity on its own brand
Write a sentence outlining how it affected the brand. An example has been made for you.

Positive impact
Apple - 2016 Apple announced his partnership to a large turbine maker - and is funding wind power renewable projects in Asia.

Negative Impact
Apple - Poor treatment of workers in Chinese factories while making iphone 6 in December 2014 - discovered by an undercover BBC Panorama investigation.

Effects of product branding

Branding is designed to create product differentiation in the mind of the consumer.
Successful branding will promote how customers feel about a product or brand. It is based on previous positive experience customers will buy well-known brands. Branding promotes the company and helps generate sales of the product and of other products or product family. Clever marketing strategies along with a strong brand identification can sell not only products but an image. Purchasers are convinced that owing the product the brand will convey on them status, success, prestige, freedom, etc.

Vox pops street intercept interviews with members of the public, we asked Millennials for their opinions on the effects of branding.

Contribution of packaging to brand identity

It is important for companies to communicate their brand identity strongly and clearly on products and at the point of sale. This is mainly done through packaging.

Branding is designed to create product differentiation in the mind of the consumer.

Packaging fulfils an important role in the marketing and promotion of products in the marketplace by attracting the attention of customers over and above that of the competitor's products. Packaging has been described as the silent salesman.

Depending on the product, the marketplace can be very crowded. If we take the example of supermarkets, when you look at a shelf with just one type of product, the choices can be

Contribution of packaging to brand identity

How are you going to stand out?

> Brand
> Graphical instrument (logo / colour etc)
> Colour
> Packaging style

It has been estimated that a product needs to be recognised by the consumer from a distance of 3 to 5 metres in less than 10 seconds if it is to be selected over its competition.

Well-designed packaging can result in impulse-purchases. Packaging and presentation must match the image and quality of the product. Poor packaging might result in negative consumer experiences, which can develop into a negative brand image.

Evaluating the global impact of branding

Globalisation is leading towards one big market. A major advantage associated with globalisation is the economy of scale benefits associated with packaging, labels, brand recognition, market acceptance, marketing, promotions and advertising. It also encourages consumers around the world to adopt similar preferences and subsequently speeds up the brand's time to market globally.

Global brands provides a sense of belonging seen by the consumers to a global community. Maybe even a cult/fashion/trend/lifestyle. The product brand will become associated with success and quality.

Since the major adoption of the internet and social media it is vitally important for even small brands to realise that although potentially trading on a relatively local single country basis, once having a presence on the internet they are potentially trading in a global context.

Market leaders dominating in particular fields tend to build on success, not only by improving sales but by acquiring other companies. This has the effect of increasing distribution networks, sales outlets, market share, reduces competition and giving companies a stronger control over pricing and availability. An example of this was the acquisition and integration of Reebok into the Adidas group.

Evaluating the global impact of branding

Socially and culturally appropriate brands that are transferable around the globe

Jif as it was known in UK, Australia and NZ is rebranded to Cif to align with the global branding effort

On occasion, products will be rebranded for different segments based on:
• geographic location
• age
• gender
• culture.

Global Products in a Culturally Diverse World

Attempts to create globally consumed brands, or regionally consumed brands throughout AsiaPacific, have proved challenging. The following examples show important it is to research before thinking your brands and advertising campaigns can work in any international market.

Pepsi Cola lost its dominant market share to Coke in South East Asia when Pepsi changed the color of its vending machines and coolers from deep "Regal" blue to light "Ice" blue as light blue is associated with death and mourning in their region.

When Gerber, a Nestle owned purveyor of baby foods first started selling their baby food in Africa, they used the same packaging as in the USA – with the cute baby on the label. Later they found out that in Africa companies routinely put pictures on the label of what is inside the package, since most people cannot read.

INTERNATIONAL MINDEDNESS

A globally recognised and appealing brand allows organisation and companies to engage with global markets. This raises ethical issues with some products.

"Branding is the profound manifestation of the human spirit," says designer and podcaster Debbie Millman. In a historical odyssey that she illustrated herself, Millman traces the evolution of branding, from cave paintings to flags to beer labels and beyond. She explores the power of symbols to unite people, beginning with prehistoric communities who used them to represent beliefs and identify affiliations to modern companies that adopt logos and trademarks to market their products – and explains how branding reflects the state of humanity.

GUIDING QUESTIONS

1. Compare and contrast the activities of marketing and advertising

2. Define Branding

3. Define Brand loyalty

4. Give an example of a company that sells the same product over multiple market segments based on universal or mass market appeal

5. Give an example of a company that has developed a range of product lines within a brand to appeal to a range of market segments

6. Give an example of a company that has tweak existing products to cater for multiple markets

7. Outline the difference between a trademark and a registered design

8. Explain, with examples, how packaging contributes to brand identity

9. Evaluate the global impact of branding

EXAM STYLE QUESTIONS

2018
31. A trademark can be:
I. A letter or word
II. A sound
III. A picture
A. I and II
B. II and III
C. I and III
D. I, II and III

2017
30. McDonald's is a global brand that has invested heavily in creating a recognisable identity (see figura 9).
However in 2014 the global sales decreased by 15% to US$6500m.
Which factors could have contributed to the decline of the McDonald's brand in 2014?
I. The brand is associated with the quality of service customers receive
II. Updating the brand identity is a major cost
III. Increased competition in the fast food marketplace
A. I and II only
B. I and III only
C. II and III only
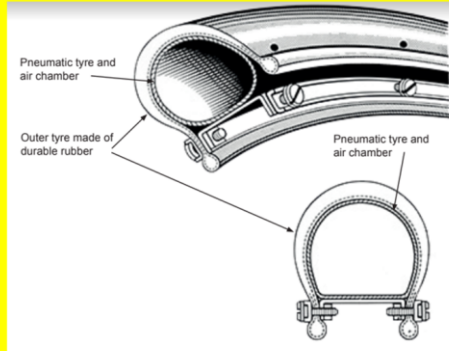D. I, II and III

2016
3. Read the case study. Answer the following question.
In 1889, Édouard Michelin took over a company that made farm machinery and rubber balls and renamed it Michelin et Cie. After a chance meeting with a cyclist, he developed the first pneumatic (air-filled) bicycle tyre (see Figure 3 below), which was used in a long distance race in 1891.
Following the success of this tyre, Michelin developed a pneumatic tyre for a car that was used in the Paris–Bordeaux–Paris race of 1895.
Although the newly patented tyres were perceived as a major development, the market for them was very small as there were few motorists on the road.
In 1900 the Michelin brothers decided to promote the excitement and romance of travel by car by producing travel guides and maps. The guides contained information on places to visit, obtain fuel, accommodation and good food. The guides were given away for free and quickly became popular.

Pneumatic tyre and air chamber

Outer tyre made of durable rubber
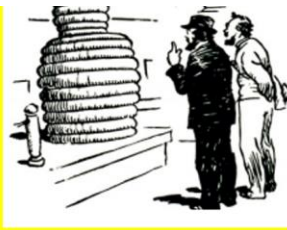
Pneumatic tyre and air chamber

Notes / Activities

A further development was the Michelin star (*) rating which grades restaurants with one, two or three stars based on the standard of food from very good to outstanding. A Michelin star is very difficult to achieve and is highly prized by restaurants around the world.

The Michelin Man (Figure 5) is one of the world's oldest trademarks, originating in 1898, and has evolved over time.

Today, Michelin produces 10 million maps and guides each year which are sold in 170 countries. Michelin also spends in excess of $700 million each year on research and development (R&D), employing 6000 people in this area alone.

Figure 4 shows an illustration of the Michelin brothers gaining inspiration for the Michelin Man trademark from a stack of tyres in 1898. Figure 5 shows the Michelin Man (Bibendum) trademark.

(b) Outline how the Michelin star system for restaurants impacts on the company's brand for tyres. [2]

(d) Explain how the Michelin Man trademark has helped the Michelin tyre company maintain brand identity. [5]

4. The image shows a headline of the pop star Rihanna accusing Snapchat of "intentionally" shaming victims of domestic abuse. Following Rihanna's statement, Snapchat's share price fell by more than 4%
Explain why this bad publicity affected Snapchat's share price [3 Marks]

5. The image shows a new idea from Mcdonald's. The fast food chain has created vending machines which serve Big Macs. Instead of having to pay cash, consumers type in their Twitter handle on the touchscreen of the machine, and it then tweets out the message, "Check out the new Big Mac," from their account.
Outline how this could be an example of positive publicity for Mcdonald's
[2 Marks]

6. The image shows the packaging for an iPhone. Apple pays as much attention to its packaging as it does to its products. It has a dedicated secret packaging room within its headquarters in Cupertino, California. In his book, Inside Apple, Adam Lashinsky describes the level of obsession and attention to detail Apple commits to packaging:
"One after another, the designer created and tested an endless series of arrows, colours, and tapes for a tiny tab designed to show the consumer where to pull back the invisible, full-bleed sticker adhered to the top of the clear iPod box. Getting it just right was this particular designer's obsession."
Discuss why Apple go to great lengths to design the packaging for its products
[3 Marks]

Summary Notes

Topic 9. Summary Notes

Market sectors and segments

In order to identify the wants and needs of a target market, the designer first has to identify what the target market is. These can be considered in two ways:

- **market sector**—a broad way of categorizing the kinds of markets a company is aiming for
- **market segment**—markets divided up into smaller segments where the purchasers have similar characteristics and tastes.

It is important that students understand the difference between a market sector and market segment and how they interact with one another.

Within market sectors, there are broad categories including:

- **geographical sectors**, which focus on the values, culture and characteristics of purchasers in that region along with purchasing power
- **client-based sectors**, which may focus on consumers, industrial, public sector and commercial.

Students need to identify products that are designed for only one sector and products designed to be sold to more than one. They will also need to develop an understanding of how multinational companies take into account market sectors in the design and manufacture of their products.

Market segments are commonly classified by income, profession, age, family, values and behaviour. By dividing up a market into segments, a company can target each individually through promotional campaigns. The segmentation allows the company to focus in on the particular characteristics and wants of the consumers and allows it to better relate its products to them.

A **product family** is a group of products that have common classification criteria. Members of a product family normally have many common parts and assemblies, are branded consistently and share aesthetic characteristics. Designers often develop product families to extend a successful product range and to develop products for market segments that are already familiar with the original product.

Marketing mix

The "marketing mix" involves a number of factors—product, place, price and promotion—the 4Ps. These factors are identified by company executives through market research and provide the designer with an accurate brief of market requirements.

Students will need to consider the standardization of products in the following three contexts.

- Government standards for a particular market segment
- Component standardization
- Industry-wide standards

Consider examples of trigger products and incremental products.

Many companies choose to sell directly to the consumer through the internet, while also selling through suppliers and stores. There are advantages and disadvantages to both approaches, and also to using this hybrid model. Students need to consider the implications of internet selling for a company in relation to its supply chain and distribution network.

An extremely important aspect of marketing a product is setting the correct price that will attract consumers to make a purchase while generating profit. Without getting the balance right, a company can quickly find that they are losing money through lack of sales or through lack of profit generation. The following strategies for setting price can be used:

- **Cost plus pricing** is a **cost**-based method for setting the **prices** of goods and services. Under this approach, you add together the direct material **cost**, direct labour **cost**, and overhead **costs** for a product, and add to it a mark-up percentage (to create a profit margin) in order to derive the **price** of the product.
- **demand pricing** - also known as customer-based **pricing**, is any **pricing** method that uses consumer **demand** - based on perceived value - as the central element. These include: **price** skimming, **price** discrimination, psychological **pricing**, bundle **pricing**, penetration **pricing**, and value-based **pricing**
- **competitor-based pricing** - or market-oriented **pricing**, involves setting a **price based** upon analysis and research compiled from the target market . With **competition pricing**, a company will base what they charge on what other firms are charging.
- **product line pricing** refers to the practice of reviewing and setting **prices** for multiple **products** that a company offers in coordination with one another.
- **psychological pricing -** (also **price** ending, charm **pricing**) is a **pricing**/marketing strategy based on the theory that certain **prices** have a **psychological** impact. Retail **prices** are often expressed as "odd **prices**": a little less than a round number, e.g. £19.99 or £2.98

When selling a product, promotion is another key aspect. Depending on the nature of a product, its position within the product life cycle among other reasons, the forms of promotion can be different.

They include:

- advertising
- publicity
- personal selling.

Market research

There are many purposes of market research.

- Gathering information in order to be able to generate new ideas for a product
- Evaluating the market potential of products at various stages of development
- Developing ideas into products to suit market requirements
- Identifying suitable promotional strategies
- Gathering information relating to demographics
- Gathering information relating to family roles
- Collecting data relating to economic trends
- Taking into account technological trends and scientific advances
- Gathering information about consumers
- Considering consumers' reactions to technology and green design and the subsequent impact on design development and market segmentation

Branding

The role of the designer varies when taking into account brand image/identity depending on the position of the new design within the innovation cycle. There are many different brands that are appealing to different market segments and use different methods to promote loyalty, which students should be able to identify.

Branding forms a product's identity that is extremely valuable to a product and can help promote sales; therefore, brand image becomes a commodity that needs to be protected as intellectual property. Infringements of trademarks and registered designs is quite commonplace for a wide range of products and some designers use their creativity to attempt to subtly disguise the infringement. Students need to understand the differences between a trademark and a registered design and how they are applied in terms of branding.

 A big challenge for designers is to maintain or improve the brand image while creating an innovative new product—this is sometimes achieved through the corporate strategy of diversification. Students should consider how brand image can be affected by positive and negative publicity and its implications for a company and be able to identify products that have been subjected to this publicity.

It is important for companies to communicate their brand identity strongly and clearly on products and at the point of sale. This is mainly done through packaging. Packaging design for a product may be an integral part of the work of the company design team or it may be outsourced to specialist packaging designers once the product has reached the end of the design cycle. Students need to consider the role of packaging for different products, which contributes to brand identity.

Market research on a global scale may be a time-consuming and expensive exercise, which is a major problem for innovative new companies, especially those reliant upon the internet for selling their product(s). Students will need to consider the effects of global impact of branding for a range of consumer goods.

Suitable strategies for market research are important in gaining appropriate information for redesigning products. When designing a brand it is important to identify the needs and wants of the market segment the product is aiming towards. A product may require a different brand identity depending on the market segment they are targeting. On occasion, products will be rebranded for different segments based on:

- geographic location
- age
- gender
- culture.

Topic Questions & Exam Practice

Exam Practice Questions

Figure 7 shows a treated steel wire table and stool. They were designed by Stephen Burks and are available in white, black or red. The furniture is craft produced by weaving the steel wire onto a rigid steel frame. The 90 cm diameter table is available for approximately US$550 and the stool for US$172.

Figure 7: Treated steel wire table and stool

(ii)   Explain how the strategy of product development could be used to create a design family of the stools.   [3]

Figure 8 shows the Water Craft life-saving aid designed by Ross Kemp as his final year project for his design degree. As a student, Ross undertook a lifeguard training course and realized that it was difficult to move a body through water single-handedly. Existing aids were either a paddle board or jet skis but these need two people to launch them. He based his new design on the jet ski but with a sloping back to make it easier to pull someone on it. After graduation, Ross decided to try and create a marketable version of his idea so he produced a number of prototypes to test. The initial testing with the Royal National Lifeboat Institution (UK) was not a great success so further prototypes were done to get to the pre-production stage. Funding for more testing at Bondi beach in Australia was gained after the Water Craft won first prize of £10 000 in the Lloyds TSB Enterprise competition and sponsorship was raised from the media attention. **Figure 9** shows a scale model of the Water Craft.

Figure 8: Water Craft prototype   **Figure 9: Ross Kemp and scale model**

(i)   Outline why the Water Craft is primarily an example of market development.   [2]

Figure 4 shows the Freeplay wind-up flashlight (torch). 30 seconds of winding powers a battery which produces 20 minutes of light. A fully-charged battery produces 20 hours of light. The Freeplay flashlight is available in a choice of three bright colours. The company Freeplay is well known for its range of wind-up devices.

Figure 4: Freeplay wind-up flashlight (torch)

(ii)   Explain how the flashlight represents a hybrid of **three** corporate strategies.   *[9]*

Figure 4 shows the Suzuki Burgman Hydrogen Scooter. Suzuki is a long established manufacturer of scooters. The Burgman Hydrogen Scooter is hydrogen fuel cell powered. It was been designed in conjunction with a UK company, Intelligent Energy, who have expertise in hydrogen fuel cell technology. The scooter has a range of approximately 220 miles and can be filled up with hydrogen in 3 minutes. The scooter emits only water. Although hydrogen production is energy intensive, it is also available as an industrial by-product.

Figure 4: Suzuki Burgman Hydrogen Scooter

Outline how the Burgman Scooter is an example of the corporate strategy of market development.   *[2]*

Airlines charge increasingly large penalties for overweight luggage. The penalties and the rules on penalties vary from airline to airline. The Balanzza Digital Luggage Scale (see **Figure 9**) has been designed to help avoid such penalties. The scale is designed to be compact ($13 \times 7 \times 2.5$ cm), lightweight (229 g) and cheap. A strong strap secures it to the bag. To weigh the bag it should be lifted by the scale, wait for the beep and then set down so the digital scale can be read (see **Figure 10** and **Figure 11**).

Figure 9: The Balanzza Digital Luggage Scale

Figure 11: Scale in use

(a) (i)   Identify **one** target market for the Balanzza Digital Luggage Scale.   [2]

(b) (i)   Outline **one** difficulty the manufacturers of the Balanzza Digital Luggage Scale would have in getting their product to diffuse into the marketplace.   [2]

(ii) Outline **one** strategy involving the Internet that the manufacturers of the Balanzza Digital Luggage Scale could use to enhance market penetration.   [2]

(c) (i)   List **two** ergonomic considerations which would inform the design of the Balanzza Digital Luggage Scale.   [2]

7. **Figure 2** shows a bag manufactured from an obsolete fire hose and fasteners. The company Fire-hose.co.uk makes bags and belts from hoses discarded by the fire brigade. The hoses are made from a thermoplastic material. Half the profits for products made from the hoses go to the Fire Fighters charity.

Figure 2: fire-hose.co.uk bag

(a) (i) Outline **one** reason why the Fire-hose.co.uk bag may appeal to some consumers in relation to their set of values. [2]

(ii) Outline **one** possible reason why the company is able to make a reasonable profit from the sale of the bags despite donating half of the profit to charity. [2]

7. **Figure 4** shows the Viber Burst kinetic phone charger concept designed by Australian design student Josh Pell. The charger has various surface designs and could be worn as a piece of jewellery or stored in a handbag or pocket. The Viber Burst has been designed to store energy created by body movements and to have a very long life cycle compared to chemical battery technology, which loses capacity to recharge in a relatively short life cycle time. The Viber Burst is designed to be made from a thermoplastic material which is heat resistant and moisture resistant.

Figure 4: Viber Burst phone charger

(c) (i) Outline why the charger may be considered part of a product family. [2]

(ii) Explain how market penetration, market development and product development contribute to a hybrid corporate strategy for innovation of the charger. [9]

Exam questions and Sub-topic Links

Table demonstrating the times each sub-topic has appeared in exam papers and at which question.

TOPIC	P1 NOV 09	P1 NOV 10	P1 MAY 10	P1 NOV 11	P1 MAY 11	P1 MAY 12	P2 NOV 09	P2 NOV 10	P2 MAY 10	P2 NOV 11	P2 MAY 11	P2 MAY 12
9.1	28			5,28	6	7		2a, 2b,		4a1, 4b2,	4a2, 5b2, 6a2,	5a2,
9.2							4ci	6a1, 6a2,			4a2,	5a1,
9.3							4ci				5a2,	
9.4			24				4ci					
9.5							4ci					

Glossary of Terms

Glossary of Terms

Topic 9: Innovation and markets

Term	Definition
Brand	A product from a known source (organization). The name of the organization can also serve as a brand.
Brand loyalty	Where a person has a favourite supplier and prefers to buy products from them rather than from other suppliers.
Competition-based pricing	A pricing strategy where a product is positioned in the market based on the price of similar products. The company will position the product by pricing it lower, similar or higher than similar products.
Corporate social responsibility	A form of self-regulation for a company that centres on the development of goals related to three areas: economic; social; and environmental.
Cost-plus pricing	A pricing strategy where a company will add a percentage to the total costs incurred for a product (production, design, distribution etc.)
Demand pricing	A pricing strategy where a company will set the price based on the demand for the product.
Environmental scanning	The study and interpretation of the political, economic, social and technological events and trends that influence a business, industry or market.
Expert appraisal	The reliance on the knowledge and skills of an expert in the operation of the product.
Imitative strategy	Developing products that are similar to an existing new product.
Literature search	The use of consumer reports, newspaper, magazines, encyclopaedias, manufacturers information, etc. To conduct research.
Market development	Finding new applications for existing products, thereby opening up new markets.
Market penetration	Increasing sales to existing customers or finding new customers for an existing product.
Market research	The systematic gathering of data about individuals or organisations using statistical analysis and techniques to support decision making.
Market sector	A broad way of categorizing the kinds of market the company is aiming for.
Market segment	Markets divide into smaller segments where the purchasers have similar characteristics and tastes.
Marketing mix	Four factors identified through market research that provide the designer with an accurate brief of market requirements. The 4 Ps: Product; Place; Price; and Promotion.
Perceptual mapping	A tool to quickly compare a product to others in the market in a graphical representation
Pioneering strategy	Being first to market with a new innovation
Product development	The creation of new, modified or updated products aimed mainly at a company's existing customers.
Product	Increasing sales from new products or markets.

diversification	
Product family	A group of products having common classification criteria. Members normally have many common parts and assemblies.
Product line pricing	Where the different products from the same product range are positioned at different price points.
Product standardisation	The process of setting uniform characteristics for a particular product, system or service.
Promotion	The ways that can be used to communicate information about a product or system to consumers and other interested parties.
Psychological pricing	Where a product is priced to give the impression that it is paying less. For example, pricing at €1.99 instead of €2
Registered design	An intellectual property mark that protects a product's appearance. This refers to the features of the product's shape, configuration, pattern or ornamentation which is new and distinctive.
User research	Obtaining users' responses through questionnaires/surveys and interviews.
User trial	The observation of people using a product and collection of comments from people who have used a product.

DP DESIGN TECHNOLOGY
WITH
Mr Moneeb