

CHAPTER 8

MARKETING AND THE FINANCE FUNCTION

1. Marketing research

Back in 2005, Evan Williams and Biz Stone gave up on their idea of an app designed to support podcasts. It was not that they didn't think podcasts would take off, they were sure they would and they did! It was because Apple launched podcast support for iTunes. They took a look at all the information available and decided that it would be foolish to try and challenge Apple for this market.

They did however, realise that the platform they had created still had plenty of potential. They then took a look at customer satisfaction surveys of social media sites such as Facebook and found that customers liked it for photo-sharing and keeping in touch with friends but felt it was not a great place for information as the news feed would often feel cluttered.

Their new venture, Twitter, would provide a basic feed of information, with a focus on news and celebrity stories. It seemed like a bad idea, essentially creating a rudimentary and feature-less version of a Facebook for a market already dominated by the aforementioned company, but their gamble paid off and one of the most successful companies of the 21st century was born!

This is a prime example of how taking a step back and listening to the marketplace and its wants and desires can aid your business. If Evan Williams and Biz Stone had not done this, we may never have had **twitter...** just another (probably failed) media sharing app!

What is marketing research?

When undertaking marketing research, **information is collected about the marketing mix:**

Product – Customer views, desires, views of competitors' products, specifications of competitors' products.

Price – Competitors' prices, elasticity of demand (how demand changes with price), psychological pricing points (how people perceive different prices), likely competitor reaction to price changes.

Promotion – Brand awareness, effectiveness of promotion campaigns.

Place – Best locations, outlet design, where and how the target market buy.

Marketing research also collects information about the market as a whole How big is it? Is it growing or declining? Who are the customers? Who are the competitors? This later information is known as market research. Do notice that **market research is a sub-section of marketing research which also includes finding information about the marketing mix.**

Ways of collecting data

To get information we first need... you guessed it: data! There's no information without data. There are two overriding methods of collecting data:

Secondary research, or desk research

Secondary research uses data that already exists. This is often the first step in the research process as it **is the easiest and lowest-cost collection method.**

Sources of information include:

- Trade associations/professional bodies
- National and local press
- Industry magazines
- Websites
- Published company accounts

- Market surveys produced by external research companies (e.g. Mintel)
- Loyalty card information
- Public records, such as censuses

Primary research

Primary research, sometimes called field research, **involves actively gathering the required data, which can prove to be expensive**. It's also important to ensure that the data is collected from a representative selection of the population.

Ways this research can be collected include:

- **Interviews** – Small groups, or one-to-one sessions
- **Questionnaires** – Mainly done online via websites, but can also be done over the phone
- **Observation** – For example, to monitor customer wait times in a queue, or to follow a path customers take through stores to see where they linger
- **Test marketing** – Similar to focus groups, but asking shoppers to try something (e.g. drinks) and asking them to rate their favourites
- **Mystery shoppers** – Paying people to shop, or use a service and asking them to rate the experience
- **Focus groups** – Gathering people together either online, or at a set destination, to gain feedback about products. Trained personnel lead the groups

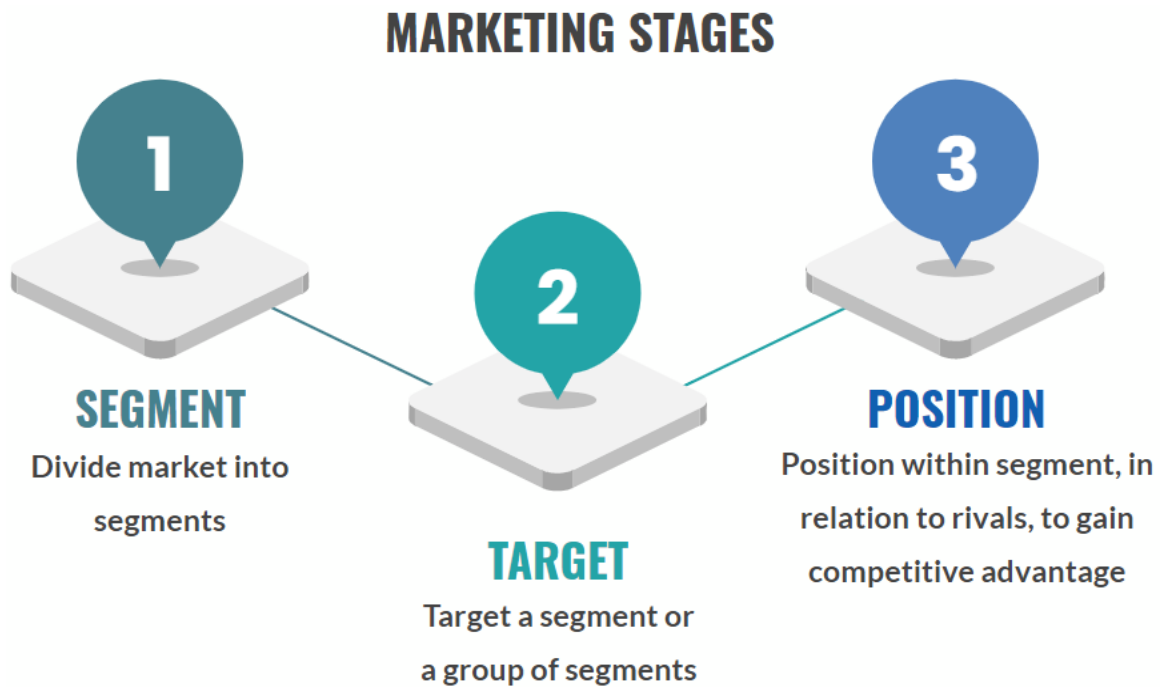
Types of data

There are two types of data: qualitative and quantitative

Data type	Collection method
Qualitative	<p>This data is used to understand how and why customers behave in a certain way. The research is based on opinions collected (most often) from interviews and focus groups.</p> <p>Questions asked are of the 'Why' or 'How' variety.</p> <p>Results can, for example, be used to predict how people will respond to certain products and will be descriptive in nature.</p> <p>For example, customers may be brought together in a focus group and asked for their opinions on a new brand of moisturiser.</p>
Quantitative	<p>Surveys and questionnaires that ask, 'How many?', 'When?' and 'Where?' usually form the basis of the collection of quantitative data.</p> <p>The results are then represented in numerical formats that are easy to understand and use.</p> <p>For example, 80% of customers would order clothing from an online store again.</p>

2. Marketing stages

There is a three stage process which is used to get a product or service to the right customer:



Segmentation

Many markets have consumers with different needs and approaches to purchasing a product. In the car market, for example, some people want a safe car, others a fast car, some something stylish and so on. **A single product, marketed in one way may not, therefore, be suitable for all buyers.** Therefore, marketers often **divide the market into groups of buyers who have similar, shared needs and who demonstrate similar buyer behaviour.**

Market segments need to have relevance to the product that is being marketed. There are four characteristics which marketers must consider when dividing markets into segments:

Characteristics	Explanation
1. Measurability	<p>Each market segment should be able to be easily measured so as to allow for assessment of overall market position, value or potential reach (size of the market) for example. Market research can be used to determine a segment size, so that strategies can be focussed at the right level. For example, if setting up a gym with specific classes and equipment for over 65s, marketers need to know how many people in the area fit the criteria.</p>
2. Accessibility	<p>Getting the right information to prospective customers is paramount to success, so marketers need to ensure that the customers can be reached.</p> <p>A small niche may be found for adventurous over-65s who want to do competitive activities, but no suitable way to market directly to that group found i.e. there's no magazine or TV programme where adverts could be placed. As a result the niche is not accessible and not worth focusing on.</p>
3. Sustainability	<p>The segment must be stable and of reasonable size in order to justify the size of the marketing budget. Small or very diverse segments, or segments that may change or disperse in the near future, would best be avoided. For our gym example, if the local free bus service in another town, which was used by the over 65s to reach the gym, were to be discontinued, targeting that geographical segment would be a waste of resources.</p>
4. Actionability	<p>An organisation must be able to deliver effective programmes to cater for the needs of the segment. For example, is there enough budget to produce an effective newspaper and leaflet drop campaign to target the over 65 segment?</p>

This **segmentation enables a marketing mix to be designed for the needs of a specific segment**. This will allow the company to meet that segment's needs better and enable greater profits to be made.

Car manufacturers might, for instance, segment the market by age groups and consider the different needs of users at different ages. One group might be female drivers who are aged over 65. They will ask themselves what types of car this segment of the market wants. Something safe, easy to drive, simple and not too expensive perhaps.

How would that differ if we were to look at people in their 30s? Well, they are more likely to have a family and a higher income. As such, they will most likely want a larger car with plenty of space inside for child seats and strollers. Safety is highly likely to be a key concern too.

There are a whole **range of ways in which consumer markets can be segmented**, however, they tend to fall into one of four segments:

Demographic segmentation

This is a **popular way to segment the market**, because, as you can see, the examples below are **relatively easy to measure**:

- **Age** - Usually segmented into relevant groups, e.g. under 18, 19-25, 26-30, and so on
- **Gender**- E.g. male, female and other, non-binary groups
- **Nationality/regional**ity - Where the segment lives
- **Family life cycle stages** – This can be further divided into categories including Young single (no dependents), Newly married with no children, Full nest (with children at home), Empty Nest (children have left home)
- **Religion** – Understanding your segment's religious beliefs could be useful, particularly in the food sector
- **Household income** – This helps marketers to aim their products at audiences who would be able to purchase them

Psychographic

Focuses on **shared interests, beliefs and traits of customers:**

- **Social status** – Crosses over with demographic, but works well when interests and product consumption are connected
- **Occasions/events** – For example, weddings, holidays such as Christmas and so on
- **Interests and lifestyles** – This segment can identify adventurous, sociable, sport orientated customers

Situational/Behavioural

Focuses on specific **customer actions and reactions**, as well as **how they process purchasing decisions:**

- **Brand loyalty** – Always choosing a recognised brand over a store's own version of the product
- **Benefit gained** – E.g. different uses for the same products
- **Regularity of purchase** – E.g. a regular customer may be more aware if the price of the product suddenly increases

Targeting

The organisation must now decide which **specific segments they are going to serve** and **design a marketing approach which is specific to these segments**. This is called targeting.

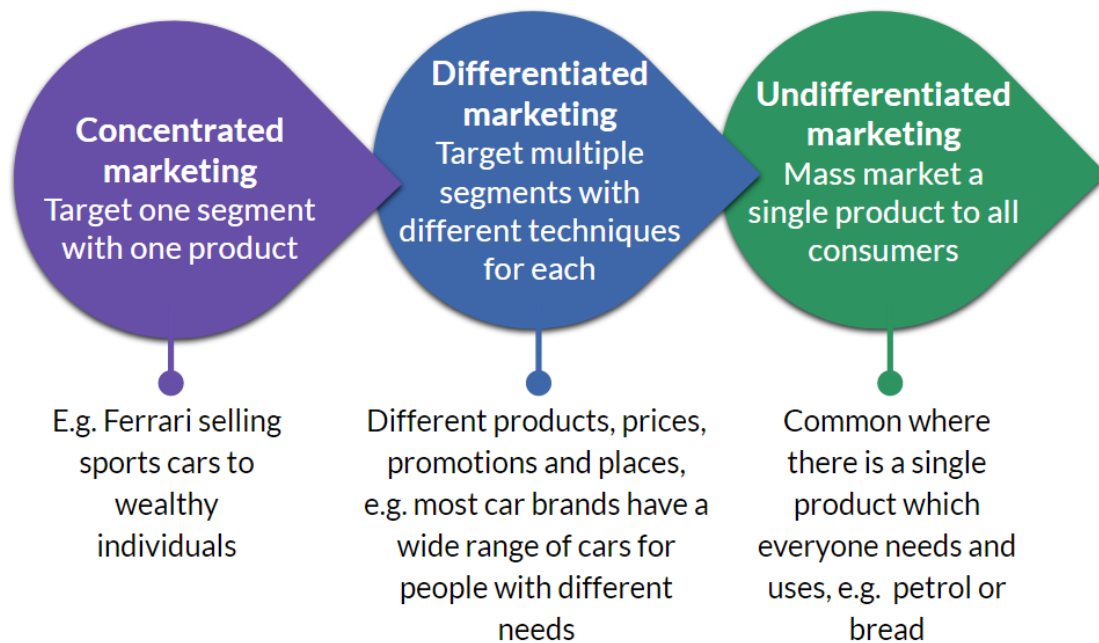
Returning to our female drivers who are over 65 and want a safe, easy-to-drive and inexpensive car: the manufacturers will now design a car to meet those needs. Nissan have their Micra, Toyota the Aygo and Ford the Ka. They then target the advertising towards that specific segment, advertising on daytime television perhaps, ensuring that they communicate the key messages of safety, ease of use and low cost.

You'll notice one key element about **segmentation and targeting; it categories people into the 'average' consumer**. There are plenty of female drivers over 65 who don't watch daytime television or want a small, inexpensive car, but on average, those are the characteristics of that group and so targeting the marketing accordingly will help to increase sales.

Ironically, those same cars are also in demand for young drivers too, because of the low cost to insure smaller cars and the lack of need for size for young, single people. A different, more upbeat and trendy campaign with younger drivers in them could stress the benefits of low-cost insurance and ease of driving for new drivers.

Companies can follow one of **three approaches to targeting**:

THE THREE APPROACHES TO TARGETING



Positioning is deciding how you will gain a competitive advantage. So, for each segment targeted, the organisation examines the competitors and decides on what basis it is going to compete with them. This could be through being a cost leader (being the lowest cost provider in the market and so able to sell profitably at the lowest cost) or by differentiating the product in some way (e.g. through quality).

Perceptual mapping, can be used to map out all the competitors by their quality and price and aims to find a position in which a firm can compete effectively.

In the market for cars, Dacia, for example, focus on the low-cost end of the market. Ferrari aim to be the best sports car manufacturer, Volvo to produce the safest cars on the road, Kia to have the longest warranty in the market, and BMW the highest quality premium brand.

Products within one company can be positioned differently depending on the segment being targeted. Many supermarkets have ranges of both low-cost, low-quality products while also stocking higher cost and quality products too. So, for

example, UK supermarket Sainsbury's have their low-cost basics range and higher cost 'taste the difference' range too, each targeting a different group of consumers.

Strategies for market positioning

A range of different strategies can be adopted depending on the **company's relative position in a market**.

Market leader

These have the **largest market share**, and so are **likely to have the strongest brand in the market, good existing customer relationships and large economies of scale**. This position is risk-neutral. There is no need to for high-risk innovation strategies in product development or promotions, it only needs to maintain its position. It can do this by taking measured steps such as market penetration and market expansion.

Strategies used by a market leader:

Element	Strategy
Product	Develop new products, new features, retain leading edge through R&D, seek production efficiencies to keep costs down
Price	Likely to be able to keep relatively low due to economies of scale in production to match prices of close competitors and avoid them taking market share
Promotion	Retain brand awareness
Place	Wide availability
Market	Increase total market size through promotion or going to new markets

In the smartphone market, Apple entered the market first in 2007 with their iPhone and quickly established themselves as market leader.

Market challenger

These have a **lower market share than the leader but are aiming to be the market leader**. Challengers need to be willing to take significant risk challenging the status quo with **innovation**.

Strategies used by market challenger:

Element	Strategy
Product	First into market with new products, increase R&D or: No new products - keep production costs low and compete on price
Price	Low to gain market share, profitability may be low in the short term
Promotion	High to gain market share
Place	Wide availability

Samsung entered the smartphone market after Apple, but were innovative and produced products which were as high a quality as Apple's but at a lower price. By 2011 they had overtaken Apple in terms of units sold.

Market follower

These are competitors with a lower market share than the leader, who **aim to follow the leader while remaining profitable**. They do not have aspirations of market leadership. Since following is a risk-averse position, innovation is low on the agenda.

Strategies used by a market follower:

Element	Strategy
Product	Follow the leader, low R&D costs enable overall costs to be kept low, new products are likely to be released after the market leader
Price	Match the leader, consider lower prices if they have a cost advantage
Promotion	Some - to retain customer awareness
Place	Wide availability

While Apple and Samsung were battling out for market leader in the smartphone market, companies like Motorola, HTC and LG continued to compete and remain profitable by producing smartphones that were good quality and reasonably priced.

Market niche strategy

Some competitors **do not aim to compete with the other players in the broad market but to focus on specific niches** (or customer segments).

Strategies used by market niche companies:

Element	Strategy
Product	Specific to segment needs, production costs likely to be higher as smaller scale than most competitors
Price	Higher as meeting specific segment needs better
Promotion	Directed at segment, stressing key benefits customers are looking for

Element	Strategy
Place	Focused on segment's purchasing behaviours/locations

Throughout the growth of the smartphone market, Blackberry continued to focus on their niche of mobile phones for business users – initially retaining the characteristic keyboard on the handset which in the pre-smartphone era had been so useful for sending emails. Unfortunately for Blackberry, the keyboards on smartphones were as easy to use as those on the traditional Blackberry devices and they soon lost popularity.

By 2014 their market share, which had once been as high as 20%, had collapsed. However, they continued in the market by focusing on small niche markets. Their Passport device was one example; a phone targeted specifically at professionals working at companies with strict security policies.

3. Who is being marketed to?

Of course, we all consider mobile phone manufacturers like Samsung and Apple as primarily selling their products to us as consumers. They have their well-known **brand, advertising, their stores, partnerships** with mobile phone companies and sales in a variety of other **outlets**, both physical and online. **Marketing to us, their consumers, is called business-to-consumer (B2C) marketing.**

However, another very important part of their business is selling directly to businesses. Many businesses give their staff mobile phones or tablet computers and one big order from a corporate customer could mean a huge sale of thousands of items. Marketing is quite different here though.

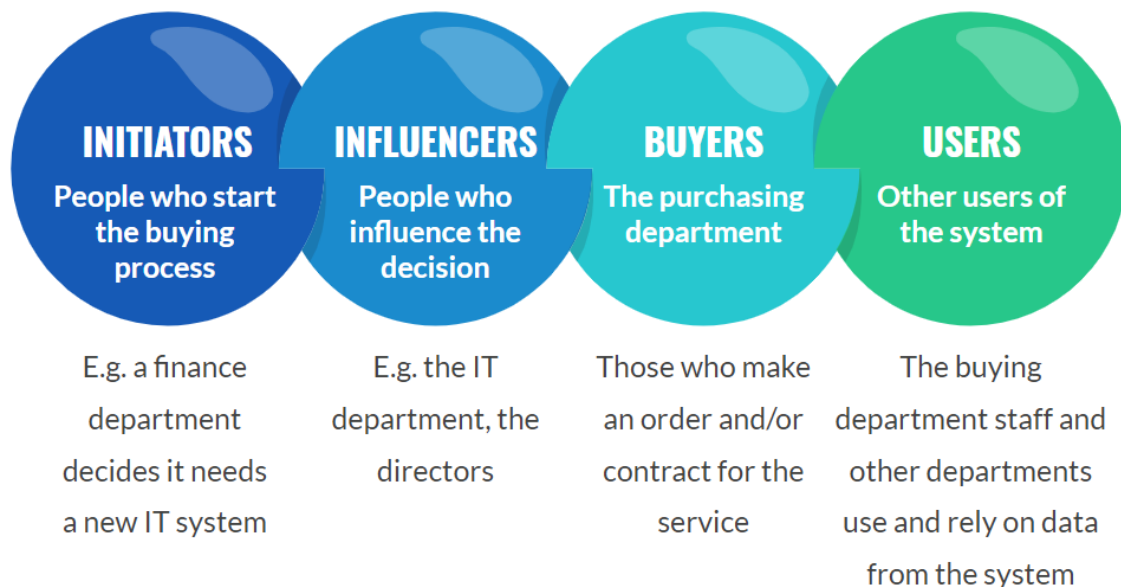
Typically, it will involve **building relationships with corporate procurement departments and tendering for contracts** where a proposal is made and compared with proposals from other companies. **Sales are often made on credit** with payment made at a later date, and indeed having the best credit terms could be the difference between getting the contact or not. This is **business-to-business (B2B) marketing.**

Of course, governments will purchase mobile products too. In 2010, Writhlington School in Somerset became the first state school in the UK to provide iPads to each of their pupils. That was an instant sale of 1,500 iPads for Apple and that's just one school! Imagine their sales for all government organisations – hospitals, schools, defence, social care and so on.

Government sales are big business. Again, like with businesses, marketing is very different in this case. Most government contracts will have a **publicly advertised offer for tender** where any company can tender for the contract. There is often then a **formal tender process with specific preset criteria applied.** Government procurement is often more bureaucratic and the company that understands the process and the department's needs is likely to be the one that wins the contract. This is **business-to-government (B2G) marketing.**

In B2B and B2G markets, there are **a range of groups involved in decision-making to consider:**

B2B AND B2G - GROUPS INVOLVED IN DECISION-MAKING



4. How technology has changed market research

New technology offers the sales and marketing function a great deal of insight into current and potential customers. From simple Internet-based surveys, to more complex information regarding buying habits, or customer preferences that can be collected from social media analytics, it has become increasingly easier to gather information.

Big data

We've already discussed big data technology in detail in another chapter, but in relation to finance and marketing, one of big data's key factors is **its capability to collect vital information from social media** such as Twitter trends, Facebook posts/likes, blogs and chat forums. The more the data can tell a story, the better the company will be able to take advantage of the data. **Recognising a trend is one thing, but being able to understand and justify the reason behind a trend is even more valuable.**

Retailers who understand their customers and their needs are **able to produce better products, target marketing campaigns better and price products in a way that attracts more custom** based on past buying patterns. This can provide firms who use Big Data with a competitive advantage.

Big data and marketing, example

Big data can be used in many ways as an important marketing tool, below are some uses for big data. To illustrate a few of the ways, big data can be used, we will use imaginary clothing shop, 'Dress to Impress', to see how it could use some of the big data analytics in its marketing.

Monitoring multi-channel transactions

This is the process of **monitoring and collating the data from multiple channels** in order **to create a better idea of how products and services are performing overall.** This data can also be used to compare sales across the channels to see which are performing better.

For example, Dress to Impress have 13 retail outlets, a website and a mail order service. Using big data they can see how a certain product performs over all three channels and change strategies accordingly. Perhaps a product sells well in-store but not online. That might be an indication that the picture or description is not good online needs updating, or that the product appeals to a different customer group who don't tend to go online.

Predicting customer demand

Organisations can use big data to **predict customer demand and, therefore, ensure that they have enough inventory to satisfy the demand and improve decision making.**

For example, sales of red duffel coats have been seen to increase after a celebrity was seen wearing one. Therefore, Dress to Impress buys a larger number of red duffel coats from their supplier anticipating the demand.

Improve customer experience

Big data can show **which products customers buy as well as their preferred methods of purchase**, allowing a company to improve the customer experience.

For example, Dress to Impress has found that a large number of customers have purchased sunglasses and sun hats at the same time. By creating 'holiday essentials' areas in their stores, they can improve the overall experience for the customer.

Identify customer preferences

Big data can be used to **identify customer preferences, which can then inform product designers** and ultimately improve the product in line with what the customer wants.

Dress to Impress customers tending to buy lower heels this season could lead to there being more low-heeled shoes in the next collection.

Identifying new customers

Big data can keep track of customers' behaviours and preferences in real time, as well as using demographics to identify potential customers. In addition, big data can help to **discover new niche markets** by grouping people in terms of behaviours and interests.

For example, when Dress to Impress groups its customers in terms of profession. To their surprise they find a significant customer group are 'students', not their traditional target market. Further investigation of products purchased suggests they are purchasing dress wear for college balls and with this in mind, Dress to Impress offer a student discount through student magazines around the time of the summer balls in order to attract more students into their stores.

Advantages and disadvantages of market research technology

	Types and examples
Advantages	<ul style="list-style-type: none"> • Accessibility – Technology allows researchers to quickly find and collect relevant information from a wide area • Interaction – Rather than travelling to people to interview them or engage them in focus groups, researchers are able to question them online, via Skype for example • Qualitative research – Such as customer perception theory, which tries to analyse and explain customer behaviour can be carried out through social media monitoring • Speed – Information can be quickly gained, collated and shared. For example, online questionnaires are instantly available with programmes able to put the results into graphs so they can be easily compared • Presentation – Information can be filtered and presented simply in graphs, pie charts and other ways – which is ideal for sharing information with those in other departments
Disadvantages	<ul style="list-style-type: none"> • Too much data – There's a danger of being overloaded with too much research, which can affect the focus of a market research campaign. The use of technology means that it is so much easier to ask respondents too many irrelevant questions • Not all data is reliable – With so many online sources, it can be difficult to sift out the genuine material. Incorrect, or incomplete research could have adverse affects on an overall campaign

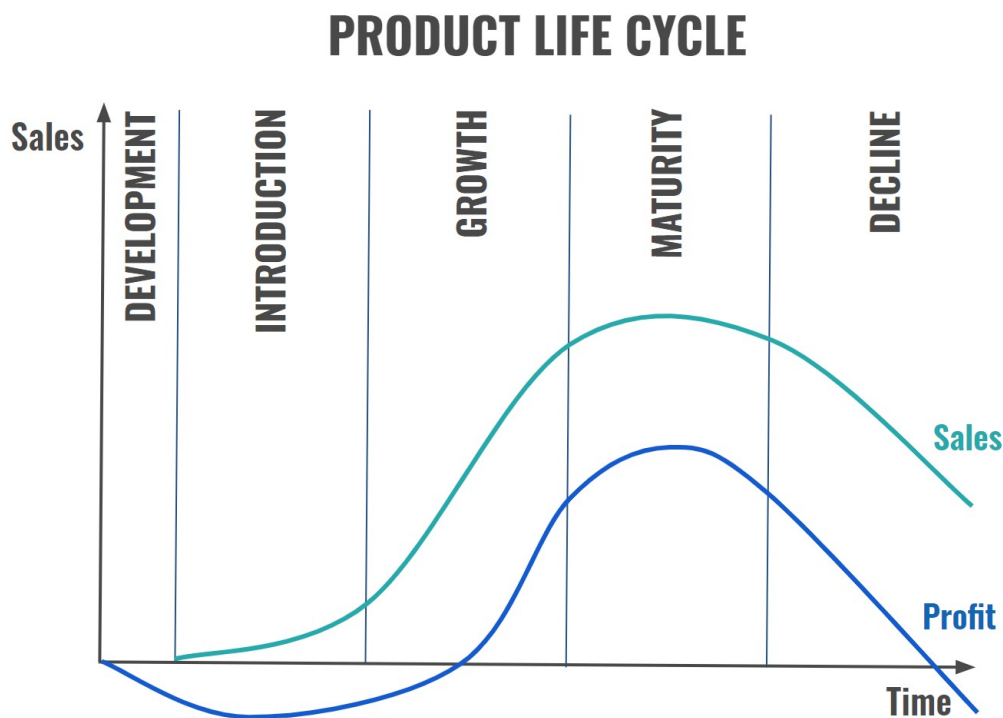
5. Product life cycle

What is a life cycle?

What's your best strategy for getting through the day alive? Well, if you're a baby, then the best strategy is crying. If you do it enough, someone will eventually meet your needs. If you're a fully mature adult, that strategy is unlikely to work. Your best strategy now is driving safely, keeping fit and not starting any fights! The strategy depends on where you are in your life cycle.

We can apply this analogy to both individual products (e.g. the market for a particular model of mobile phone) and industries as a whole (e.g. the mobile phone market) and to **assess either the industry as a whole, or a given product within it**. We can then use that assessment to **predict competitive conditions and formulate relevant strategy**. **Different strategies are appropriate in each stage of the life - cycle.**

Product life cycle



After a period of development, a product is introduced into the market. If the product meets customer needs, consumers recognise this, **new customers are gained and revenues grow**. Eventually, the **market reaches saturation and the product becomes mature** and revenues level off. After a period of time, the product

is overtaken by development and **the introduction of superior products, so the sales of this product go into decline** and it is eventually withdrawn.

Life cycle costing

In the product life cycle graph, the sales are represented by the top line and profits by the bottom. Profits tend to be greatest at the maturity stage where sales are highest and costs have been minimised through economies of scale and learning over time. **The finance function works with sales and marketing before and during the entirety of a product's life cycle to ensure that all costs are covered** and it remains profitable.

Stage	Sales Volume	Costs
Development	None	Research and Development, e.g. salaries of the design staff, prototype manufacturing costs
Introduction	Very low levels	High fixed costs, e.g. buying machinery to build the cars (non current assets), some factory overheads, some labour costs
Growth	Rapid increase	More variable costs as production levels increase, e.g. more direct labour costs, indirect labour costs, increase in fixed costs
Maturity	High and stable	Mostly variable costs only (unless non-current assets needed)
Decline	Falling demand	Decreasing variable costs, fixed costs, e.g. decommissioning the factories

Let's examine each stage in detail:

Product development

In developing new products, companies tend to go through set stages. Let's review each of these:

- 1. Idea generation** – Through market research and understanding customer needs and desires.
- 2. Screening** – High level review to rule out infeasible ideas considering: market demand, customer needs, competition, technical feasibility, likely profitability.
- 3. Idea testing** – Test concept with potential customers. Answers and reactions are noted for further improvement of concept.
- 4. Business analysis** – Decide on selling price, demand and likely profitability.
- 5. Beta testing and market testing** – Prototype the product, and test it with consumers. Make adjustments where necessary.
- 6. Technical implementation** – Design the production process, set up operations.
- 7. Commercialisation** – Launch the product, advertise, manufacture.
- 8. Product and pricing review** – Review the product and prices as time progresses, e.g. due to changes in position in product life cycle or new competitors.

Note that stages 7 and 8 of this process are launch and post-launch and start to merge into the next stages of the product life cycle.

Introduction – Price skimming

In the introduction stage, significant costs are incurred in continued product development and marketing, and sales volumes are often low. So a price-skimming strategy is often followed. In this strategy, a **high initial price is charged to capitalise on early adopters** who often purchase new products, or people who have a highly specific need that they are willing to pay more for. **As demand decreases, the price can be gradually decreased** (or skimmed).

Think about Apple's iPod in 2001. It was a revolutionary product that, combined with the iTunes music store, introduced the concept of portable digital music. Apple had a first mover advantage and could operate a price-skimming strategy, charging a very

high price for the iPod and setting the price of legal download sales for the entire industry.

Growth – Market penetration

As the product's sales rise, competitors are attracted into the market with similar offerings. As a result, the typical strategy followed here is **market penetration, where prices are lowered and marketing increased**. The aim is to win market share and become one of the leading players in the market.

Often, at the end of the growth stage, there is the '**shake out**'. This is **where the least successful entrants pull out** of the market due to a lack of profitability or are purchased by the larger competitors in their aim to increase their market share. A market penetration policy throughout the growth stage helps to avoid the organisation being one of the losers during the shake out.

A flurry of competition in both MP3 players through the early 2000s online digital music stores grew dramatically. New entrants entered the market such as Amazon and Google. Competition came in the MP3 market with most electronics manufacturers making their own version.

Maturity – Consolidation strategy

With fewer competitors in the market after the shake out, **the remaining competitors must continue to consolidate their position**. They may do this by differentiating products so that they occupy a unique position in the market, or by developing strong brands that are well known and trusted so that they continue to attract customers. Prices are set at levels which are competitive but profitable. The lower production costs at this stage, due to the economies of scale caused by high volumes, ensure that the organisation remains profitable in this stage.

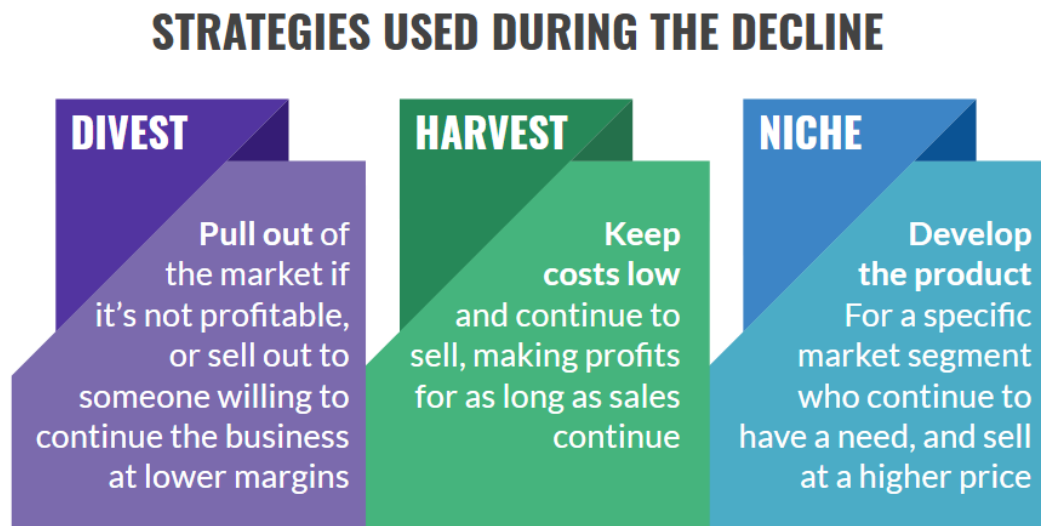
At this stage, **the finance function's interaction with sales and marketing would form part of portfolio management**. Products that have reached this stage of the life cycle may require further marketing investment to keep sales at a profitable level. If an organisation has **multiple products at this stage, the costs of keeping them in maturity could escalate**. To avoid this, **the finance function can, therefore, work with sales and marketing to decide whether products and services should be moved into the decline stage, which could allow for investment elsewhere**.

When the market for MP3 players and download stores shook out, Apple were the dominant force. Amazon and to some extent Google were in the music download market, but small by comparison, while only brandless low-cost commodity offerings

were really successful in the MP3 player market with many leading brands 'shaken out' by the dominance of Apple. In this stage we saw the price of iPods come down.

Decline – Niche, Harvest or Divest

As sales start to decline, a range of possible strategies are possible:



By 2016, the MP3 audio file (and the related MP4 video file) had been largely been replaced by cloud-based streaming audio and video services, while few people purchased stand alone MP3 players as everyone had them built into their mobile phones. Apple had become a leader in the new market for mobile phones with their iPhone, but lagged behind in the audio streaming market, the chief competitors here being Spotify and Deezer in audio; Netflix, Hulu, Amazon in video. Both the digital file download and MP3 player were in the decline stage of the product life cycle although Apple continued to sell MP3 players and audio downloads to those people who still wanted them, effectively harvesting the market.

Limitations of the product life cycle

In reality, very few products follow such a prescriptive cycle. **The length of each stage varies enormously and stages can be affected by decisions made.** So, for example, the maturity phase can be lengthened by price-cutting.

How technology can be used in product life cycle analysis

Blockchain and the Internet of Things are discussed in more detail in other chapters, but here's how they can be useful for life cycle analysis:

Blockchain

Blockchain allows for an accurate recording of all the elements of a product over its entire life cycle. By viewing the current status of the block, the organisation is able to view a variety of different records about the product, including things like costs and revenues and inventory levels.

Internet of Things

The Internet of Things (IoT) can be used in the product life cycle in a number of different ways. Firstly, **a product is now able to provide data about its own maintenance and servicing issues**, with the aim of improving servicing schedules and reducing maintenance costs. For example, many cars now have sensors which can connect to main databases, with this technology, dealerships are able to contact drivers via text or email when brake discs are low, or a service is due.

Secondly, **a product is now able to feedback to the manufacturer, letting them know how customers are using the product**. Manufacturers would then be able to update products based on customer needs, giving them a huge competitive advantage. If we return to our car example, customers may not be using the inbuilt satellite navigation system, preferring to use their smart phone. Manufactures could then decide to either discontinue this feature and choose instead to look at seamless ways the smart phone could be integrated into the car's dashboard.

Thirdly, the **product's performance can also be monitored** and data sent back to the manufacturer **on how the product is performing**. Which could give them the opportunity to improve upon underperforming parts, or help with organisational decision making.

6. Sales forecasting

If only we could see into the future! Well, we can't do that with any certainty, but we what we can do is make some educated guesses. And to do that, we use forecasting. **Forecasting is the process of using past data to predict the future**. In sales and marketing, forecasting can be used to predict future demand and sales figures.

For example, Alista runs a small corner shop. If she wants to know how much ice cream to buy to meet demand in August, the hottest month, she could simply make a guess. However, the chances of getting it wrong could be costly: too little and she'll lose sales. Too much and her cash is tied up in inventory she can't sell once the weather cools down. She'll lose money! So, a better way is to look at last year's sales

for the same trading period and use that to forecast demand for this year. Now, that's not certain, but it's more likely to be accurate than random guesswork. Alista could also look at long-term weather forecasts as the month approached – the hotter it's likely to be, the more she'll need to buy. If Alista is really clever, she might start monitoring sales each year, along with the weather and temperature, and start to make her future predictions even more accurate! **Forecasting is never perfect, but it's a good way to manage uncertainty.**

Challenges of sales forecasting

One of the challenges with forecasting is that **variables rarely move in a perfectly uniform manner over time**. For example, it is unlikely that sales will increase by exactly 15% every year for ten years. It is far more likely that the amount of change will vary each year, and quite often by a significant amount. Therefore, it is important that we understand the reasons behind these changes over time if we are to forecast sales accurately.

Causes of variations

Long-term trends – The underlying direction and quantity of change over the long term. This is often influenced by things such as demographics, technological advancements and changes in lifestyles. A good example of a long-term trend might be the steady increase in worldwide mobile phone usage over the last 20 years. The trend observed might be that increasing use of mobile phones or the decreasing use and sales of landline phones.

Seasonal variations – These are best described as short-term trends and fluctuations. Alista knows all about these! Her higher-than-average ice cream sales in August are a good example of a seasonal variation. Sales of umbrellas being higher in winter is another. Perhaps Alista could stock umbrellas over the winter period to balance out fluctuations in her ice cream sales.

Cyclical variations – Similar to seasonal variations but with the cycle spanning a longer time period. For example, periods of recession recurring after several years, or the continual cycle of bull and bear markets.

Random variations – Changes that are impossible to forecast, so are generally just noted for historical reasons rather than forecasted. An example might be a terrorist attack or a natural disaster which has a heavy impact on sales.

Methods of forecasting

There are a few different approaches Alista could take to predict her future ice cream sales. Let's take a look at what these are:

Statistical forecasting

Statistical forecasting **uses data and numbers to make predictions**. Methods include:

- **Regression analysis** – Using the statistical 'line of best fit' of past data to estimate the future by identifying the long-term trend line.
- **Time-series analysis** – Takes regression analysis one step further by creating a trend line based on past data and then adding in seasonal and cyclical variations to predict future changes.
- **Econometrics** – This use of past economic data to predict future economic conditions. E.g. a building firm using housing demand data to predict future years' sales.

System modelling

Another option for forecasting is **developing computer models of systems as a way of forecasting future scenarios**.

For example, an organisation may want to forecast the sales of a new product and model the various variables in that system. What would they include in the model? Well, perhaps in the past, there has been a direct relationship between economic growth and sales growth, so that's one factor that could be included in the model. Other factors might be the marketing budget and sales, so they could also be added into the model. Once all the important factors have been built in, the model could then be used to provide a forecast.

A problem with system modelling is that it is really difficult to identify all the relevant variables. If some are missing, the forecast may be inaccurate.

It can also be **difficult to understand how the factors inter-relate, which can cause problems with the accuracy of the forecast**. For instance, one factor might be a relationship between economic growth and sales, while another could be earnings increases and sales. Because economic growth and earnings increases are likely to be linked; they are both representative of the same underlying factor – which is that the economy is strong. If the model includes both of the factors, it could result in over or understated predictions based on considering the effects of a strong economy twice without considering this in the model's calculations.

Intuitive forecasting

This type of forecasting relies on judgement, rather than statistics. The reliability lies in the successful utilisation of expertise and knowledge. Methods include:

- **Think tanks** – Teams of **independent experts engage in unstructured group discussion**. However, groupthink may occur from the pressure to conform to majority thinking and the opinions of the minority may be overlooked.
- **Delphi technique** – This seeks to address the group pressures of think tanks and other focus groups by systematically **consulting individual experts who do not meet**. A central authority will evaluate responses and feed results back to the experts in a second round of consultation. A drawback is that the central authority's bias may creep in at this stage, influencing the responses given by the experts.

So, which type of forecast did Alista use? It was closest to a time-series analysis using seasonal variations to make the prediction. Actually, she didn't take account of the overall trend affecting the sale of ice cream (read back and you'll see this was not mentioned) and that would be useful too. If ice cream sales are growing at 5% per year, she should factor that into her calculations too, otherwise she might still run out of ice cream when the weather gets hot.

7. How finance interacts with sales and marketing

In the past, the finance function has been considered separate to other areas within a business, such as sales and marketing. The only way the two would come together would be to discuss annual budgets and how effectively the money had been spent. Being two disjointed departments may have caused conflict in the past, with sales and marketing departments feeling constrained by tight monetary control.

Now, the more modern approach to business is for the **finance function to work more closely with other departments in order to achieve company objectives**. With new and improved technology making all areas of an organisation easily accessible to each other, it is much easier for functions to work in collaboration.

Areas **where finance and sales and marketing functions interact include:**

- **Budgeting** – For example, sales and marketing will predict targets they aim to achieve and finance will set budgets accordingly.
- **Pricing** – Sales and marketing will suggest prices that they have estimated based on the market status, competition and historical trends, the finance function will have input to ensure that costs have being covered and the product will be profitable. Finance will also be able to set parameters that sales can reduce prices by. For example, fitted kitchen showrooms may reduce the price of the whole kitchen if the customer purchases particular electrical goods as a purchase incentive, the reduced price must still produce a profit however.
- **Advertising** – The finance function will set budgets and monitor whether certain campaigns have been cost effective by comparing sales with the cost of advertising campaigns applied to products.
- **Key Performance Indicators** – The finance function help the marketing function establish and monitor its key performance indicators. Please see the following section for more information.

8. Key performance indicators

Key performance indicators (KPIs) are **used by the finance function in order to manage operations**. In the case of sales and marketing, KPIs are important for the business to **monitor whether objectives have been achieved**. **The finance function will work with sales and marketing to identify KPIs, based on areas of the function that are vital for success**. For example, it's no good identifying a KPI to measure the numbers of emails sent, that in itself is not an indication of success. Instead a KPI of emails sent which resulted in website visits and eventual sales, would be a good performance indicator showing how well the email was received.

Below are some example KPIs which can be used to measure the effectiveness of the sales and marketing function.

- Cost per customer acquisition – How much of the marketing budget has been spent per new customer
- Sales team response time – How quickly do the sales team get back to customers, for example, on a website chat system or emails.

Marketing and the Finance Function

- Website traffic to website lead ratio – How many visitors has the website had, compared to the volume of revenue taken
- Quoted-to-closed customer ratio – How many customers have continued with a purchase after receiving a quote
- Social media reach and engagement – How many likes does a post have, how many shares/Retweets has posts had
- Organic traffic – Comparison of how many new visitors has a website received
- Mobile traffic – How many people have accessed the website via mobile phones, and how long have they spent on the website
- Percentage of emails opened by recipient versus those sent
- Sales per visit – How many products a person purchases on each visit will show how effective purchase suggestions have been
- Form abandonment rate – How many people put items in the virtual shopping basket and don't complete the purchase

Once the KPI data has been collected, the finance team will **analyse the figures and feed the results back to sales and marketing**. Based on findings, **both departments can collaborate to see where improvements can be made**, such as writing more attractive emails that invite the reader to click through to the website and make a purchase, or apportioning more budget to particular areas. As you can see, in all the above KPIs technology underpins sales and marketing success, not only for generation of sales but also the ability to quickly and easily see how effective campaigns have been for the business.