

MORE FACTORS
INFLUENCING DESIGN

This mobile revision pdf is based on detailed work found in the Product Design section.

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MORE FACTORS INFLUENCING DESIGN

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TECHNOLOGY PUSH / MARKET
PULL

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WHAT IS TECHNOLOGY PUSH?

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The term 'Technology Push', refers to advances in technology and the way in which these are introduced to the public / consumers, in the form of commercial products.

In this model, research and development in new technology drives the development of new products.

A new form of technology is developed and then products are designed that include the new form of technology. Quite simply, the emergence of new technology leads to the development of new products, that consumers see and want to buy.

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EXAMPLE OF TECHNOLOGY PUSH

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A good example is touch screen technology.

It first appeared as published research by E.A. Johnson at the Royal Radar Establishment UK, in the mid 1960s. The technology began to attract research and development funding. Later developments of touch screen technology included hand writing recognition. as seen in the released of Apple's Newton PDA in 1993. By 1996, Palm introduced its Pilot Series into the growing PDA market. As the technology advanced, allowing touch screen technology as we know it today, new product ideas, such as the iPod touch and several iPhone look a likes followed. Advances in technology was the driving force.

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1993 APPLE NEWTON PDA



1996 PALM SERIES



2012 SAMSUNG GALAXY



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TECHNOLOGY PUSH CAN FAIL

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The 'technology push' model does not always work, as it depends on new technology being made available in the form of new products, which have not always been market tested adequately first

The Sinclair C5 in the mid 1980s, was an electric vehicle aimed at commuters. Although technologically advanced for the decade, it had a low top speed and short range.

Furthermore, it was fitted with pedals, which were used by the driver when going up hill.

The vehicle was 'dwarfed' by other traffic.

The C5 was the product of technological development NOT a market need. It failed as a commercial product.

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WHAT IS MARKET PULL?

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The term 'Market Pull', refers to the need/requirement for a new product or a solution to a problem, which comes from the market place. The need is identified by potential customers or market research. A product or a range of products are developed, to solve the original need. Market pull sometimes starts with potential customers asking for improvements to existing products. Focus groups are often central to this, when testing a concept design or an existing product.

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EXAMPLE OF MARKET PULL?

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A good example of market pull influencing product evolution, is seen in the development of the digital camera. Twenty years ago, there was a 'market' requirement for a camera without a film (saving on developing films), that could take endless photographs, that could be viewed almost immediately. The technology of the time did not lead to the manufacture of such a device. However, technology has a habit of catching up on market needs. Market pull eventually led to the development of digital cameras, once miniature digital storage, processing power and improved battery performance was available.

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REVISION CARDS TECHNOLOGY PUSH AND MARKET PULL

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BRAND IDENTITY

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When a company or a product achieves 'brand' status, it normally means that it has been extremely successful. Also the logo / symbol / image built up by a successful company, can become a brand in its own right. Meanings, feelings and values are usually associated with a brand (sometimes called 'brand identity'), making the branding of products an effective form of marketing.

Brand identity can apply to a single product and it can also be applied to a group of products, such as the Apple iPhone, iPod and iPad. Harley Davidson Motorbikes is another well known and respected brand, having a distinct brand identity.

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EXAMPLE 1 - BRAND IDENTITY

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APPLE have designed and manufactured communication devices leading to the iPhone, iPod and iPad. It has a growing loyal customer base. The Apple brand identity stands for innovative products, the application of ground breaking technology, high quality products that are well made and superior to their rivals. The symbol / logo that represents the company is instantly recognisable. Customers buy Apple products because they want to be associated with high quality and innovative technology.

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EXAMPLE 2 - BRAND IDENTITY

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Harley Davidson Motorcycles has survived for a long time, despite competition from Japanese rivals. Harley Davidson is associated with powerful, distinctive cruiser motorbikes. Furthermore, it is associated with freedom on the road with a little of the rebel thrown in. People buy Harley Davidson motorbikes and associated products such as clothes, because they want to be associated with powerful cruiser motorbikes and the freedom of the road.

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CHARACTERISTICS OF A BRAND

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Brand identity is an effective form of advertising and marketing.

Brand identity helps create an image for the public and potential customers.

Brand identity develops over time due to successful products.

Brand identity is associated with quality products.

Branded products are normally trusted by the public and customers.

It is assumed that branded products have been extensively tried and tested before release.

Brands usually help build up customer loyalty.

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EXERCISES – BRAND IDENTITY

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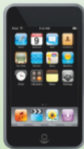
WHAT IS A TREND?

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In terms of Product Design, a trend could be described as, the way a product or a type of 'technology', develops along a particular path, over a period of time.

Apple's IPOD touch helped set a trend in touch screen devices. It lead to the development of similar products, with even better responsive touch screens. Today most electronic devices / gadgets have a touch screen of some form.

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ORIGINAL IPOD



TOUCH SCREEN
TABLET

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ANOTHER EXAMPLE OF A TREND

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Raleigh of Nottingham, England introduced the 'Chopper' bicycle in the 1970s. It was unusual as it had a large back wheel, a small front wheel, a gear stick lever and easy rider handle bars. It quickly became the bicycle of choice for young children and teenagers. It was 'trendy' and a 'must have' product, even though it was not easy to ride.

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1970s TANK TOP SET A TREND IN FASHION

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WHAT IS A SALES TREND?

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A trend can be a reference to the sales of a product rising consistently over a period of time. Of course the opposite can apply, when sales fall consistently over time.

The graph below shows a trend of increased sales

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WHAT IS COPYRIGHT?

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Copyright aims to protect people, companies and organisations that produce creative and artistic work.

An author can claim copyright protection for his/her books or a song writer can protect his/her songs.

In order to claim copyright, it is essential that the work you are trying to protect is completely your own.

Copyright law covers many areas including; Literature, Drama, Music, Art, Layouts, Recordings, Broadcasts

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EXAMPLE OF COPYRIGHT

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A website designer spends months developing an educational website. The site includes impressive animations, graphics and lots of information for people to use. However, a copyright statement says that the work can be printed out and used BUT it must not be altered in anyway

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WHAT IS A PATENT?

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A patent protects a person or company that invents something new. If you invent a new type of pen, you should patent your design.

This should prevent anyone or another company from stealing your idea, manufacturing it and making money for themselves. A patent protects your design for the first five years and then you must apply annually for the next fifteen years (twenty years in total).

Patents apply to; a scientific discovery, a literary piece of work (e.g. musical), Computer programs, new medical treatments.

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EXAMPLE OF A PATENT

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This medical treatment has been developed by an international research company. It is designed to cure headaches developed at work. It works on the principle that anyone with a headache seeing this treatment will quickly recover before treatment commences and go back to work promptly.

When applying for a patent it should be understood that the patent only applies to individual countries such as the UK or US.

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WHAT IS A REGISTERED TRADEMARK?

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A trademark is a symbol/sign that identifies your products or services.

A trademark can be words or pictures or a combination of both. A fee is paid to the Intellectual Property Office, who decide whether a symbol/logo can be regarded as a protected trademark. Often trademarks are used to advertise products or services. A trademark must be distinctive and distinguish your goods from those of other traders/manufacturers. It must not be confused with other trademarks. A registered trademark is denoted by ®.

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EXAMPLE - REGISTERED TRADEMARK?

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Below is a pair of shoes with integrated springs, allowing the user to 'bounce' along at high speed. The name 'springfoot' has been registered as a trademark. The combination of the name and the way it is graphically presented is the trademark. Anyone copying or producing the same name and style of presentation will be breaking the Law. The trademark has been registered with the Intellectual Property Office.

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