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DYSON- An Exception to the Law of Demand

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Abstract

Dyson has dominated several markets and continuously reinvented itself. Inventor and engineer James Dyson officially launched Dyson in 1991. With a net worth of over \$9.2 billion, Dyson is now the fourth richest British person in the world according to the 2022 Forbes Rich List. Initially, the firm concentrated on creating cutting-edge Hoover cleaners that were intended to clean more effectively and efficiently than conventional versions. In addition to Hoover cleaners, Dyson has kept up its innovative streak and expanded its product range. Other home devices that the business has created include hand dryers, air purifiers, and lighting items. With the 2016 release of its Supersonic hair dryer, it has also entered new areas, such as those for personal hygiene and cosmetics. In its thirty years and counting, Dyson has proven over and over again that it can invest in and nurture innovative ideas while still turning a profit as a company. They have now been successful in creating a brand that is applicable to several industries. Their unwavering focus on the smallest details, excessive over-engineering for daily chores, and exorbitant price points have given rise to a novel idea: the "appliance as a status symbol."

Objectives

The objectives of this paper are as under:

1. To study about the law of demand and its exceptions
2. To get an in depth understanding of working of home appliances and personal care products industry
3. To have an overview of the products and services offered by the Dyson company.
4. To analyze for the Dyson company the impact on profits with increasing prices of their goods

Keywords: *Exceptions to law of demand, Law of demand, Innovation, technology, home appliances, personal care products, vacuum cleaners, high quality, research and development, consumer, strategy, engineers, competitive markets, premium prices, high product variety, expensive, sustainable and durable, experiment, electronics, commercial, design*

Introduction

James Dyson came up with a novel concept for Dyson in 1991. He once stated that they take action as design engineers in response to malfunctioning of the products and stay all focused on innovation and advancement. Hanno Kirner has taken over as CEO of Dyson, a British technology company with headquarters in Singapore, in February 2024. Nowadays, Dyson devices are in use in more than 65 nations worldwide. Similar to its technology, it started with just one individual and one design and has grown to over 1000 engineers globally. The original research, design, and development of Dyson technologies are carried out in the company's headquarters in Malmesbury, England.

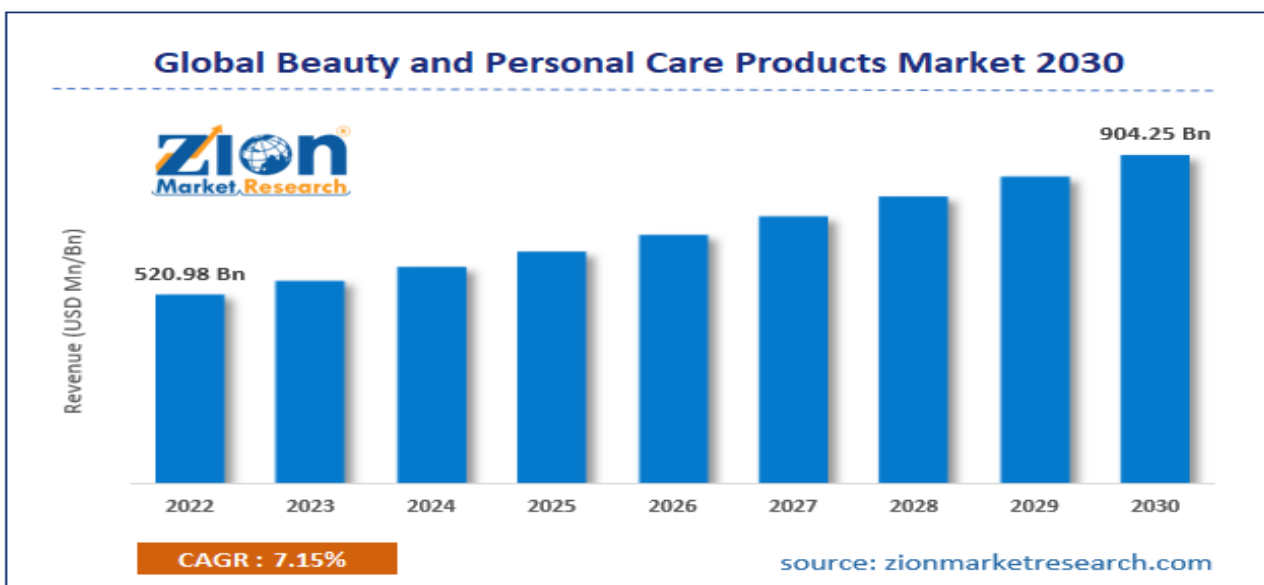
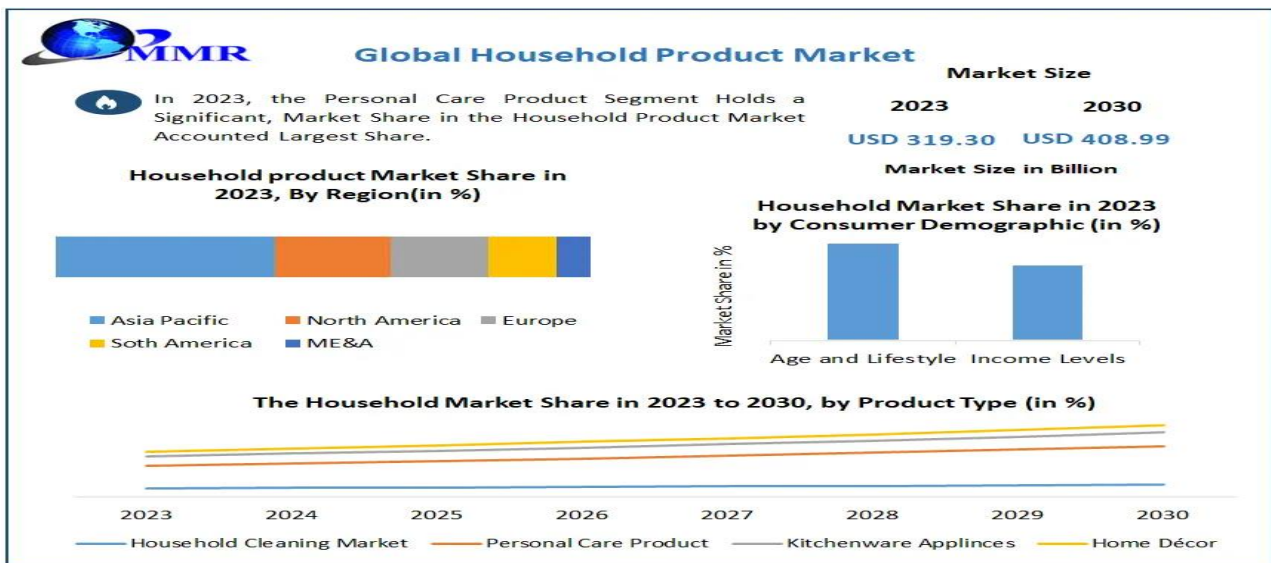
At the moment, Dyson tries to solve difficulties in daily life in addition to creating and marketing cutting edge goods. Because of this, the marketing emphasises the usefulness, excellent quality, and effectiveness of the things it offers. By leveraging the special qualities of their technology, Dyson offers simple fixes for everyday issues. As such, it relieves its users of laborious and complicated household chores. Dyson strives to offer simplified and practical goods by consistently using a diverse approach. Dyson's commitment to providing high-quality and functional solutions to challenges maintains its image as a cornerstone of innovation, affecting homes globally.

The engineers work to improve their designs all the time. Their commitment is on enhancing and perfecting Dyson's apparatus. They have areas of expertise in many different fields, including microbiology, electronics, robotics, fluid dynamics, and acoustics. Their collaboration guarantees the efficiency and sustainability of Dyson equipment. In an effort to achieve perfection, Dyson attempts to give its machines structural integrity with less waste, weight, and materials.

Home Appliance and Personal Care Industry

Dyson caters to both the home appliance and the personal care industry. Large white and brown appliances and little white appliances make up the home appliance industry. The market's increasing demand for high-end, intelligent products propelled the sector's ongoing growth in all directions. In an effort to reduce the influence on the environment, sustainability and energy efficiency are receiving more attention these days. Programs to save waste and eco-friendly appliances are becoming more and more important. This business produces a wide range of goods, such as toasters, vacuum cleaners, washing machines, electric kettles, irons, microwaves, fans, heaters and purifiers. The market for home products was estimated to be worth USD 319.30 billion in 2023, and it is projected to increase at a 3.6% annual pace from 2024 to 2030, when it is predicted to reach over USD 408.99 billion.

The personal care products are used to clean and shield the body's exterior organs from pathogens, maintaining optimal bodily function. They support good personal cleanliness, general health and wellbeing, and the attractive look of body parts. The items that are utilised are organic chemicals that are added to commonly used consumer goods. Lotions, hair dryers, lipsticks, cosmetics, creams, deodorants, bath soaps, dental care items, shampoos, toothpaste, perfumes, UV filters, detergents, sunscreens, and scents are among the goods produced in this sector. With a compound annual growth rate (CAGR) of around 7.15% from 2023 to 2030, the global market for beauty and personal care products, estimated at USD 520.98 billion in 2022, is expected to reach nearly USD 904.25 billion by 2030.



History of Dyson

The private company, Dyson was started by James Dyson in Malmesbury, England. In 1978, he was frustrated with his vacuum cleaner's declining capacity, he dismantled it only to find that dust was clogging the bag, reducing the suction. he built an industrial cyclone towner for his factory that uses centrifugal force to separate paint particles from air.

With this technology, he wondered if the same principle and idea could be applied to a vacuum cleaner. He got to work, intending on finding out. Five years and 5127 prototypes later, he successfully invented the world's first bagless vacuum cleaner and named it, "G-Force".

James Dyson was able to set up his company, Dyson Appliances Ltd., using royalties from G-Force sales. The DA 001, the first ever dual cyclone machine that was built under the Dyson name, was produced by American company Philp's plastics. However, there were quality control concerns and Philp wanted to renegotiate the terms of the contract to build the vacuum cleaner, Dyson, thus, broke of the agreement in May 1993. He then started a new supply chain and opened a new production facility in Chippenham, Wiltshire, England. The DA 001 was soon after replaced by its almost identical twin, the DC01. Dyson finally entered the market technology after proceeding to license this technology in North America from 1986 to 2001 to Fantom Technologies.

The Meiban Dyson Laundry Manufacturing plant was opened in Johor, Malaysia in 2004. The joint excursion between Dyson and Meiban Group Ltd, a Singapore based company, was the RM10 million plant. The company had manufacturing facilities in China, Malaysia, and Singapore. In 2007, Dyson partnered with Malaysian electronics manufacturer VS Industry Bhd (VSI) to manage their supply chain, from raw material sourcing to global distribution. VSI also implemented a production plan for Dyson's markets worldwide. By 2016, Dyson had about 7,000 employees globally, with VSI's Malaysian facility employing around 4,250 people and generating 80% of VSI's revenue in 2007. Therefore, Today, Dyson products are manufactured in Malaysia, with some of its digital motors built in a plant in Japan.

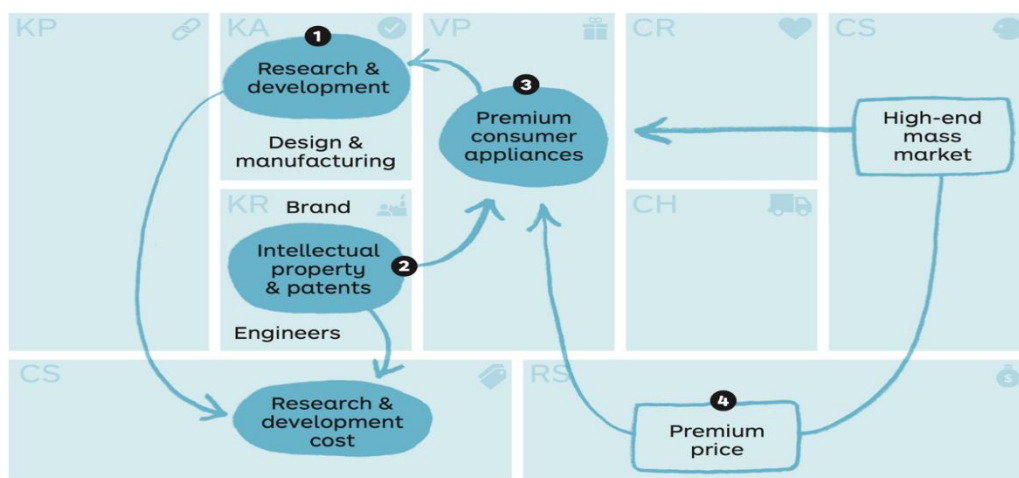
Products

Dyson offers a plethora of technologies for various purposes. Broadly, the products can be divided into seven different categories. The categories are Vacuum cleaners, Hair care, Air treatment, Headphones, Lighting, Parts, and accessories, and for businesses. Under Vacuum cleaners it offers distinct types of vacuums and its parts. There are cordless vacuums, robot vacuums, corded vacuums, hard floor vacuums, wet and dry vacuums, handheld vacuums, vacuum batteries, and vacuum accessories. In the hair care category, Dyson offers hair stylers, hair dryers, hair straighteners, hair styling guides, and hair care accessories. Unlike the vacuum cleaners, which come under the home appliance industry, these products fall into the personal care industry. Under the third category, air treatment, there is air purifiers and humidifiers, just air purifiers, air purifiers that heat, and purifier filters. Additionally, in headphones there is only the Dyson Zone headphones with two different types of models. The first model is the absolute and noise cancelling headphones and the second model is simply noise cancelling headphones. Under Lighting there is floor lamps and desk lamps. The parts and accessories category comprises of subsections of each of the other modules. Thus, it contains vacuum tools, cordless vacuum batteries, hair care accessories and purifier filters that have each been previously mentioned in their respective categories. Finally, for businesses category contains products designed for other institutions and commercial businesses. Hence, it does not appeal to an individual as a consumer but rather a workplace or public area. These consist of commercial hand dryers, commercial air treatment, professional hair care, commercial vacuum cleaners, and commercial lighting.

Best sellers contributing to Dyson's popularity and sales include the followings. Specifically, the copper-coloured Dyson supersonic hair dryer is wonderful since it works well with a wide range of hair textures and kinds and can be styled in numerous ways. The gold or white Dyson HEPA Purifier Cool TP09 Formaldehyde Purifying fan. In addition to cooling down and thoroughly cleaning the entire space, it also eliminates formaldehyde, collects dust, allergies, and germs, and automatically detects and shows the state of the air. The Dyson V11 is also a strong cordless vacuum that detangles hair automatically. It can compute how long it could run for and has an hour of run time. Both its own battery life and cleaning modes are shown.

Strategy

Dyson follows a step-by-step process in order to ensure tackle a wide range of product engineering challenges with an ingenious approach. First step is that it invests approximately 20% of its earning in research and development. In order to ensure protection of its products the second step Dyson takes is to patent its products aggressively. For the development of the Supersonic Hair Dryer, Dyson spent \$71 million and filed 100 patent applications. For the third step is uses its IP to heavily differentiate its products, creating the best product for each category it is in. Finally, Dyson sells these products at premium prices, in order to create exclusivity and desirability for its products, and gain profits. This rough step by step process provides and overview of Dysons strategy.



By creating cutting-edge technology, a wide range of products, and aesthetically pleasing designs, Dyson dominates the technological industry. As such, it's great for producing high-end goods and cutting-edge home appliances.

It also continues to provide a wide range of products that are focused on user experience and efficiency. It offers a wide range of goods, including air purifiers and hair care equipment. Each of them highlights the luxury image of the company with its streamlined, minimalistic style.

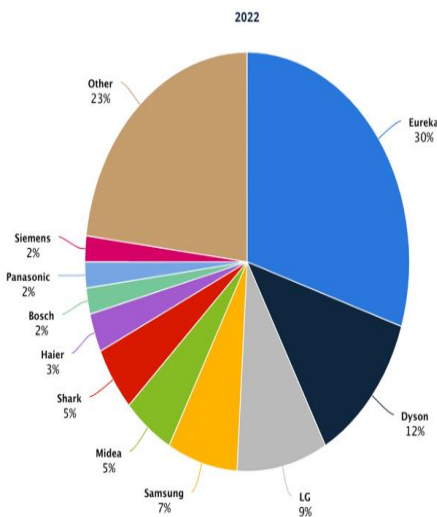
Dyson has demonstrated that it is a high-end brand by employing a premium pricing approach. Their superior products, cutting-edge technology, and extra features help them to justify their higher costs. Additionally, by emphasising its excellent performance and durability, Dyson aims to create a strong value perception. Also selling of products apart from company website also through electronic stores, department stores, and authorized distributors like amazon has helped Dyson to increase its market sales.

Through online ads and digital marketing, Dyson reaches a worldwide audience and produces aesthetically appealing material that encapsulates the spirit of their goods. Additionally, Dyson funds educational initiatives to raise customer awareness. This is accomplished by eliminating moral hazard and adverse selection through in-person consumer demos, comprehensive product information, and online courses. Celebrities and internet personalities occasionally appear in Dyson's advertisements. As part of its educational initiatives, the James Dyson foundation provides scholarships to prospective engineers. In order to increase customer interest and demand, Dyson periodically introduces limited editions and unique variants of its items. It collaborates with other interior designers to present their goods in a range of settings. Customers are encouraged to purchase Dyson's seasonal and promotional items via discounts and special incentives.

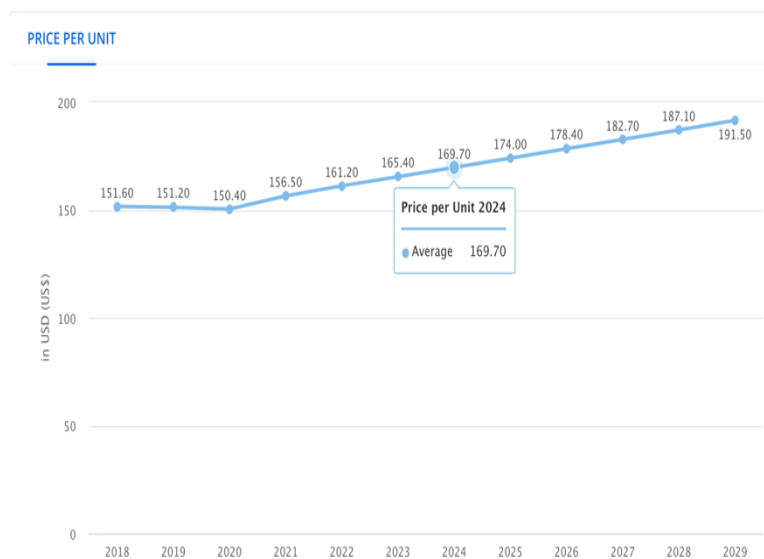
Competitors

For every market segment Dyson serves, there are distinct rivals. The two primary markets in which Dyson works are those of personal care items and household appliances, particularly Hoover cleaners. In this paper Hoover cleaners and hair care items are compared as those are the major sources of revenue for Dyson.

In the market for vacuum cleaners their main competitors are Eureka, LG, Samsung, Midea, Shark, Haier, Bosch, Panasonic, and Siemens. Data found in 2022, states that Eureka is the leading firm with 30% market share, and the second largest is Dyson with 12% market share. LG has 9% and Samsung has 7%. The rest have 5% or below. The average price per unit of vacuum cleaners this year, in 2024 is around \$169.7.



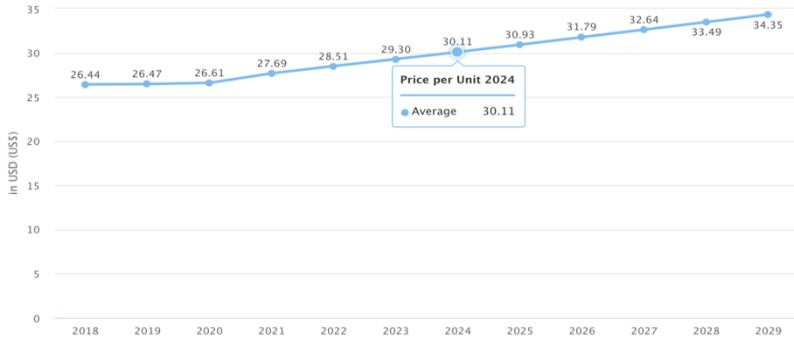
VACUUM CLEANER'S AVERAGE PRICE



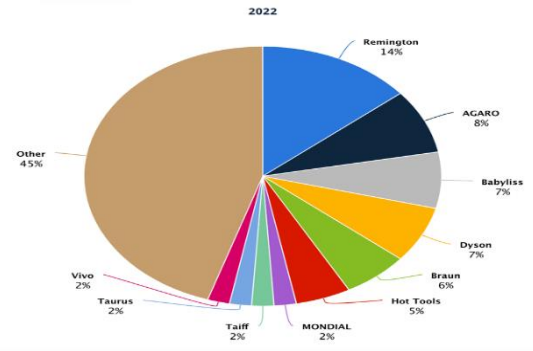
VACUUM CLEANER'S COMPETITORS MARKET SHARE

The main focus of Dyson's approach is premium pricing, but it also aims to project an image of exceptional quality, cutting-edge technology, and unmatched performance. Door-to-door sales is Eureka Forbes' main approach, and it has increased the company's revenue in the last five years. They have integrated digital technology into their business processes, set reasonable prices for their goods, and provide their clients a compelling value proposition. LG prioritises innovation and cutting-edge technology, anticipating and appreciating the diversity of technological advancements. They consistently look for methods to improve and expand their technology, paying close attention to how shifting marketing dynamics must be accommodated. They are therefore seen as progressive. Finally, Samsung also prioritises adjusting to market developments.

In the market for hair appliances, Dyson's primary competition is Remington, AGARO, BaByliss, Braun, Hot Tools, MONDIAL, Taif, Taurus, and Vivo. In 2022, the firm with the largest market share was Remington with 14%, followed by AGARO with 8%. Dyson and BaByliss both have 7% market share. The rest of the firms have 6% or lesser. The average price in 2024 for Hair dryers was \$30.11.



HAIR DRYER'S COMPETITORS
MARKET SHARE

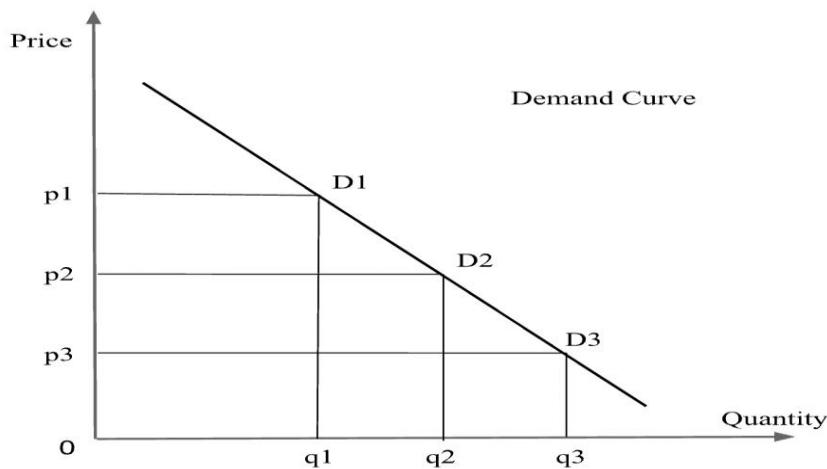


HAIR DRYER'S AVERAGE PRICE

Remington aims to deliver both convenience and performance with its hair care products, pricing it at affordable rates, around the market average. Dyson prices at prices much higher than the average. While Remington products have simple and streamlined designs, Dyson focuses on the multifunctionality of its hair care products. Agaro has unparalleled commitment to customer satisfaction and, like Remington, has more affordable pricing. BaByliss aims to target a larger consumer group and has a wide range of product variety. Their pricing is more expensive than the average, however, it is less expensive than Dyson.

Law of Demand

Price and amount of quantity desired in a given time period have a negative causal connection, according to the law of demand. In other words, as an item's price rises, fewer people want it, and vice versa when the price of a commodity falls. This is shown in the diagram below as when the price decreased from p_1 to p_2 the quantity demanded increased from q_1 to q_2 , and when the price decreased from p_2 to p_3 then the quantity demanded increased further from q_2 to q_3 .

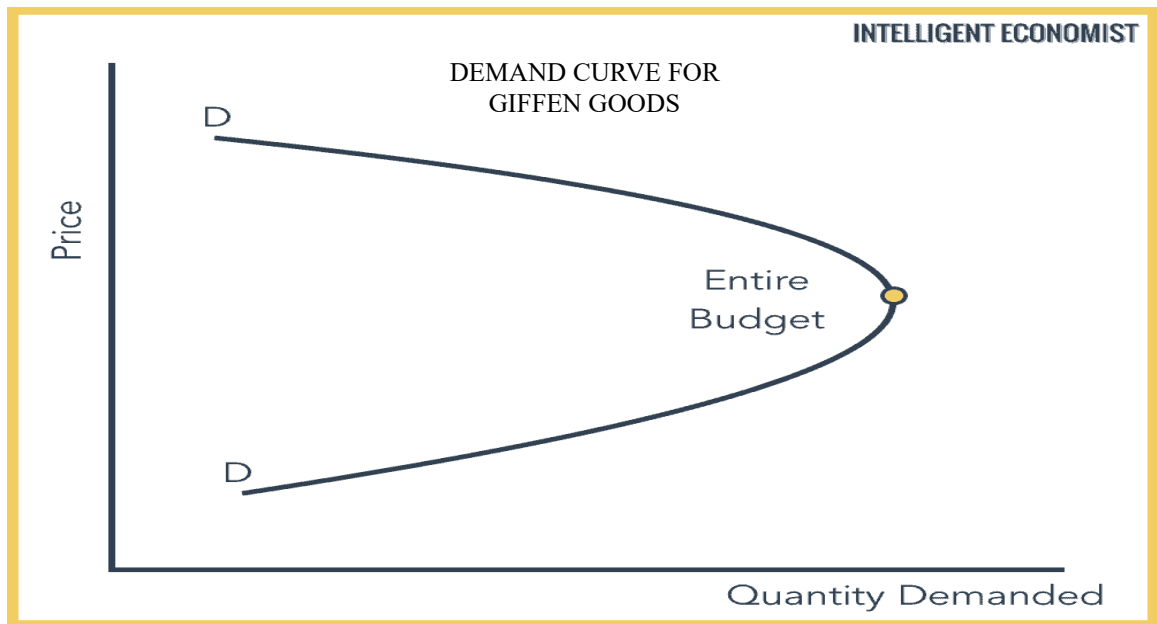


Exceptions to law of demand

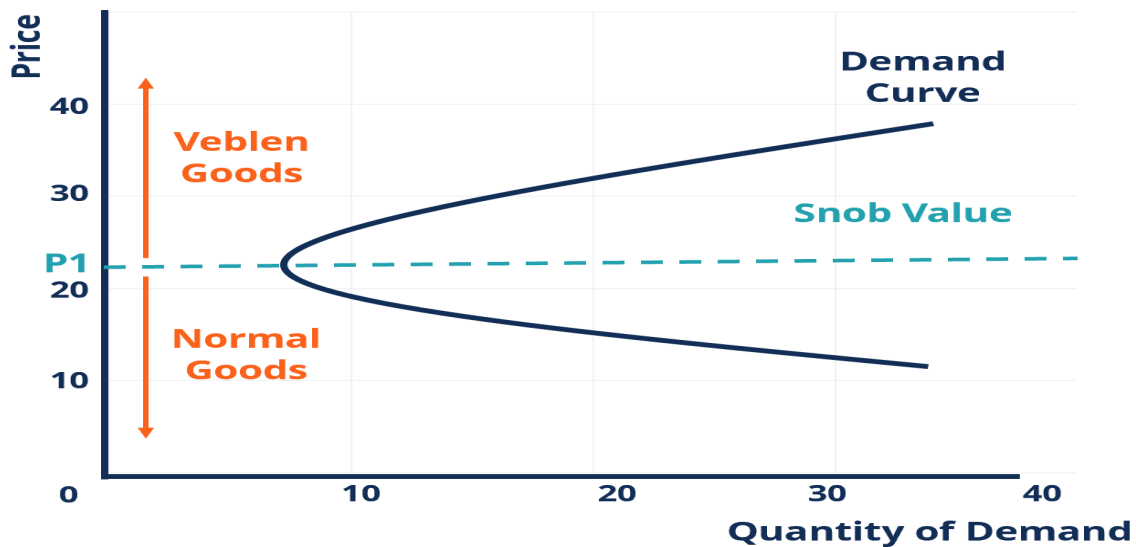
Due to the unstable fluctuations and numerous other factors in the quantity demanded there are certain cases in which the law of demand does not hold true. The main exceptions to the law of demand are giffen goods, Veblen goods and services, necessity goods and services, and changes in income.

A concept introduced by Sir Robert Giffen, Giffen goods are low-income, non-luxury products, which are strongly impacted by the lack of close substitutes and economic pressures. Thus, when the per capita income of an economy falls due to external factors such as a famine or a pandemic then the demand for normal goods decreases and giffen goods increases as it is a more affordable alternative. The economist Thorstein Veblen introduced the concept of Veblen goods. Veblen goods are goods that become more significant and valuable as their prices increase. The demand increases when an object is more expensive as its perceived worth, value, and utility rise. Example of Veblen goods are luxury goods, precious metals, and stones. The snob value is a price that is illustrated in the demand curve diagram at P_1 . Usually, Veblen goods can exhibit characteristics of normal goods with a downward sloping demand curve at lower prices (below P_1). However, beyond a certain price (above P_1), the snob effect takes over causing the demand curve to slope upwards. Thus, the product becomes a Veblen good as consumers are willing to pay higher prices for its exclusivity. Additionally, Consumers behaviors in buying goods and services are greatly influenced by changes in their income.

When an individual consumer's disposable income increases, they are more likely to buy more goods, despite the prices of such goods rising. Thus, the quantity demanded for such goods increase as consumers are willing and able to spend more of their disposable income.



Snob Effect of Veblen Goods



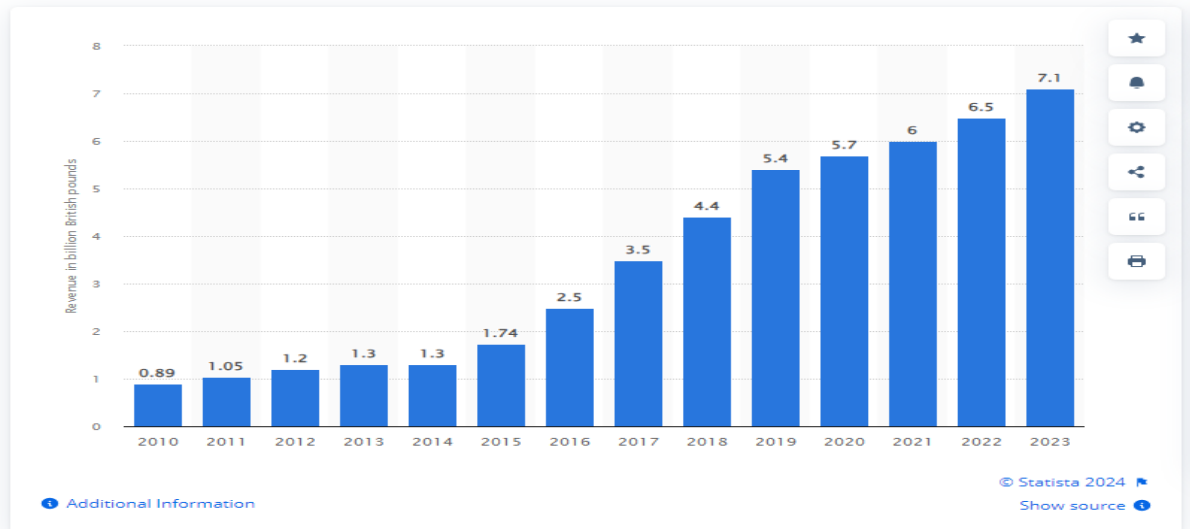
Why Dyson is considered an exception to the law of demand.

Dyson's investment in research and development increases with time. In the last ten years, Dyson has allocated £2.5 billion on product development and the expansion of its Senai, Johor, research & development centre. The primary purpose of this project was to provide space for a centre housing their 1,200 workers, 22 laboratories, prototyping rooms, and collaborative work places. One of the primary causes of Dyson's rising product pricing is this. The cost of production typically rises with new product development in order to maintain the highest standards of efficiency and quality. But even though its prices have been rising steadily, its sales and revenue have also climbed.

In 2023, Dyson Ltd. reported revenues of 7.1 billion British pounds, an increase of around 600 million British pounds compared to the previous year. With a growing market of middle-class consumers, the Asia-Pacific region was integral to this increase in revenue and is becoming more and more important for Dyson's overall business. The company's recent move of its headquarters to Singapore reflects the importance of the Asia-Pacific region for the company's future outlook.

Annual revenue of Dyson Ltd worldwide from 2010 to 2023

(in billion GBP)



Here is another statistic that displays Dyson’s sales and profits growing without taxes and with.



Dyson anticipates that energy efficiency, lowering running costs, natural beauty, and purifiers with heating and cooling capabilities will continue to gain popularity alongside those that can evaluate indoor air quality. By making investments in these anticipated trends, Dyson's sales and revenues will rise in the future, steadily increasing in size. Dyson defies the rule of demand as a result of the direct proportionality between its product pricing, revenues, and growing sales.

Review of Literature

“Tactile study design”-Siddharth Sharma, 2016: Dyson has mainly contributed to the improvement of vacuum products and constantly explores new market opportunities. The company's higher price range compared to competitors is justified by its goal to improve customer’s lifestyle and provide high quality products. Dyson has expanded its opportunities in countries such as Australia, Canada, and other emerging global markets. Additionally, Dyson could focus its marketing strategies on more uniform markets such as Norway, Finland, Belgium, and Denmark, which stresses on quality, and high purchasing power. There is potential in emerging markets such as China and India as well. They could also refine their approach in providing consumer satisfaction by understanding and adapting to local cleaning habits.

Dyson must grasp and support its capabilities to ensure ongoing success. This would drive development and variety in its product offerings. This strategy would not only guarantee sustained growth but it also innovation across various markets.

“Dyson Strategic Analysis”- Oby Loretta, UCL School of Management: Dyson’s product variety and profits are boosted by investments in Research and Development, enhancing the range of innovative machines produced. For example, the launch of 'DC58' handheld vacuum cleaner. this product uses patentable technologies, such as cyclone technology that captures dust and dirt, which made it a powerful handheld vacuum. In 2014, the increase in popularity of its handheld vacuums-sales were up 64%. This allowed Dyson’s profit to increase by 13% per cent from the previous year, hitting £367 Million.

By using patented technology to keep its competitive edge, Dyson led the vacuum cleaner market in the United Kingdom in 2014, accounting for 20% of the market's volume. Skilled engineers and designers are the primary forces behind Dyson's success and performance. Experts in domains like electronics, mechanics, and design collaborate to create domestic prototypes that aim to add a unique touch to the everyday equipment that people use. Dyson's success goes beyond Porter's theory of competitive advantage through differentiation. Dyson has an edge in the market through constantly providing unique, high-quality products. Additionally, moving production overseas has reduced costs, allowing more investment in R&D. This strategy, combined with a highly skilled workforce, continues to drive the company's success, showing how strategic thinking and development processes translate into a significant competitive advantage.

“Is innovation design- or technology-driven?”-Daejung Kim and Jieun Kim, 2020, World Patent Information Vol 64, 102010: The study introduces a cross-citation measure consisting of design and utility patents and proposes a model of innovation pollination. Dyson is the main case study, providing an embodiment of how a design-led, a technology-led, or a cross-pollinating innovation can function in the product development. The findings show how innovation pollination vary depending on the product category and the company's experiences in development. Primarily driven by design and technology innovation, Dyson’s bladeless fans and bag less vacuum cleaners rarely have cross-pollination. This would further explore the implications for technology, design, and innovation management strategy. By suggesting and proving a model of innovation pollination through the lens of Dyson’s product innovation, this study reaches its conclusions. The impact of innovation pollination across design and technology results in distinct types.

“The law of demand and the loss of confidence effect: An experimental study”- Jiří Mazurek, Carlos Fernández García, and Cristina Pérez Rico, 2019, Heliyon: The law of demand illustrates the market demand curve, but this experiment introduces a new model for real markets. The objective of this paper was to conduct an experiment demonstrating that demand, unlike in microeconomics, may not always be decreasing. This is due to the limited rationality of some customers who distrust lower prices. The research demonstrates that some students exhibit “imperfect economist” behavior due to the anchoring effect. Thus, this could lead to violations in the law of demand. The experiment was conducted in Czech Republic, Ecuador, and Spain with university students. In all three locations, distrust was observed, implying that when prices are perceived as too low compared to an anchor price, the law of demand may not hold true. A scenario known to be caused to cognitive biases as described by Kahneman (2011) where respondents answered quickly. It would be valuable to compare these results with an experiment where respondents take more time to respond, allowing them to think more logically. Additionally, the study found that about 45% of undergraduate students were unable to make rational decisions even in simple tasks like purchasing a given product. Furthermore, significant differences in rationality between men and women were observed among respondents from Ecuador and Spain, but not from the Czech Republic.

“A Project Report on Law of Demand Theory Impact on Customers Buying Attitude with Reference Cooking Oil”-Dr. S. Nagaraju, 2022, International Journal of Innovative Research in Technology Volume 9 Issue 3, ISSN: 2349-6002: In recent times there have been a significant increase in oil prices from 2021 to 2022, with prices doubling within this short period. This study researches the causes of these extreme events, tackling the supply and demand-based price mechanisms. The law of demand is a fundamental economic principle stating that higher prices lead to lower quantities demanded, while lower prices lead to higher quantities demanded. This principle is derived from the law of diminishing marginal utility, which states that consumers mainly want to satisfy their own needs first with economic goods. The law of demand is typically illustrated using demand curves and demand schedules, summarizing the relationship between quantity demanded and price. Understanding the law of demand is crucial in economics as it explains how the quantity of goods and services demanded is influenced by price, preferences, income, and the number of buyers. Although the law of demand applies to FMCG products such as oil, consumers prioritize their health, leading them to purchase higher-quality products.

“The Theory of Demand in the Conditions of Heterogeneity of Goods and Consumers”- L.N. Safiullin, 2015, Procedia Economics and Finance 24: This article displays new findings in the theory of demand, introducing complex additive and nonlinear models that explore the relationship between demand and external factors that influence it. The study examines the various characteristics of demand, identifying the factors that depends it depends on such as the quality and the competitiveness of the good. The use of diagrams in demand research was first introduced by the English economist A. Marshall. In initial stages, Marshall focused on demand depending on a singular factor due to the homogenous nature of the range and quality of goods. Therefore, Marshall's studies primarily examined the quantity of demand based on price, assuming other factors remained constant (*ceteris paribus*). However, demand is a broader concept influenced by numerous factors affecting consumer demand. The paper proposes an additional key factor, quality of goods, into the set of known demand factors. Since Marshall's time, the quality of goods has significantly changed and has become more important than price. This shift has led to new competitive methods, including non-price competition focused on product quality. This article aims to expand the scientific understanding in the fields of quality, value, and profit theory. It identifies the mechanisms by which the quality of goods and services influences producer offerings, consumer utility, and the formation of benefits such as profit and utility.

“Exceptions to the Law of Demand”-Sanket Suman, Economics discussion: The following highlights five exceptions to the law of demand (1) Speculative markets such as stock markets an increase in price of a product, like a share, can lead to consumers believing that prices will continue to rise. Consequently, they start buying more of the product before the price increases. This situation does not go completely against the law of demand because the demand curve does not slope upward. Instead, we see a shift in the downward-sloping demand curve where people buy more at the same price. (2) People often buy high-priced commodities to display their wealth.

This phenomenon, known as snob appeal, involves buying items for conspicuous consumption. This is an exception to law of demand as if the price of the good falls, consumers would buy less of it. Buyers consume these items for their prices. (3) Many times, consumers lack the insight to perceive products for their physical value such as reliability and durability for complex items. In the absence of other information, they use price as an indicator of quality. Thus, a higher-priced car is perceived as better than a cheaper one. In these cases, the demand curve might slope upward. This argument supports the previous point about commodities with snob appeal. (4) A 'Giffen good' is a unique type of inferior good. In the 19th century, Sir Robert Giffen observed that poor people in Scotland spent most of their income on a staple food like potatoes. When the price of potatoes rose, they became so impoverished that they cut spending on other items and bought more potatoes for consumption. For such goods, the demand curve slopes upward. (5) For certain essential items, such as medicines, people purchase a fixed quantity regardless of the price. For example, heart patients will buy the same amount of nitroglycerin whether the price is high or low, showing almost no response to price changes. In such cases, the demand curve is likely to be a vertical straight line.

“Dyson Is the Apple of Appliances (and Just as Secretive)”- Mark Scott, 2017, The New York Times: Dyson has a unique approach in consumer electronics. Dyson has dedicated nearly two decades and tens of millions of dollars to develop a vacuum cleaner that is more expensive than a high-end laptop. Defying the conventional opinion that hardware products can rarely turn into profits, Dyson earns revenue from vacuum cleaners, lights, and hair dryers. Dyson, like Apple, consistently earns profit from new technologies, alleviating struggles against low-cost imitators and narrow profit margins. Dyson’s goal is to expand beyond vacuum cleaners, hair dryers, and air purifiers. To fulfill this, they plan on investing over \$2 billion in battery technology, machine learning, and other advanced technologies to create new products. Dyson’s future ambitions include solid-state batteries, which could be three times more powerful and safer than current batteries. Sakti3, a Michigan start-up, was bought by Dyson for \$90 million, in order to mass produce these batteries by 2020. However, experts are reluctant about whether this technology would progress beyond the laboratory.

“Dyson Business Model Canvas”-Insider Knowledge, 2023: As Dyson's popularity increased, they started to set up offices and factories across the world. In 2002, Dyson established its first foreign office in Chicago, and by 2005, it had a research and development facility in Malaysia. Currently, Dyson has operations in more than 80 nations, enabling it to market its wide variety of products globally. As a result, they have committed themselves to sustainability and lessening its influence on the environment. By 2025, it wants to be carbon neutral, and by 2030, it wants to produce solely recyclable goods. To this end, Dyson has introduced a number of programs designed to cut waste and encourage sustainability. The company's product recycling initiative and its collaboration with TerraCycle to recycle Hoover cleaner filters are two examples. The Dyson business model consists of nine primary parts. Customer segments, value propositions, channels, customer interactions, revenue streams, important alliances, important resources, important activities, and cost structures are a few of these. Dyson caters to three primary clientele groups: individuals, companies, and business users. The firm designs its products with specific user groups in mind, guaranteeing their applicability and flexibility. To reach its consumers, Dyson uses a multichannel approach that combines direct sales, e-commerce sites, retail partners, and service facilities. This tactic ensures that Dyson's products are available everywhere by bolstering its market presence. The company's success in channelling may be attributed to its strong online presence, which includes an easy-to-use website and active social media channels.

Research Methodology

In order to test a hypothesis or find answers to research questions, many sorts of data can be gathered, analysed, and understood using an organised, scientific process known as a research methodology. It serves as a road plan for carrying out research, protecting investigators and permitting constraints inside the parameters of the study. Research restrictions and ethical considerations should be taken into account when choosing a technique. study methodology primarily explain the methods and approaches used to find data related to a certain study topic. Through the methodical process of a research methodology, researchers may design their investigations and accomplish goals with the use of research instruments. It is made up of an extensive framework that includes techniques for data collecting and analysis as well as study design.

Types of Research Methodology

There are four types of research methodology qualitative, quantitative, descriptive, and exploratory.

1. Qualitative research methodology is the process of collecting and analyzing numerical data. It is used to find patterns, predictions, relationships, and find generalized results of a wider population through a sample size.
2. Qualitative research is a type of research that explores and provides deeper insights into real-world problems. Thus, it describes qualities or characteristics which is understood through concepts, opinions and experiences.
3. Descriptive research aims to accurately describe a population, situation or phenomenon. It answers what, where, when and how questions, and is designed to use various research methods to investigate one or more variables

- Exploratory research is a methodology approach that investigates research questions that have not previously been studied in depth. It is often primary in nature, trying to understand a poorly investigated subject.

Statistical Tools Adopted

Data was processed and presented using graphic presentations.

Sampling Technique

For this research study a questionnaire consisting of eleven simple questions on the subjects of Dyson, law of demand, and exception to law of demand was used.

Hypothesis

H0 – Dyson company products are not exceptions to the law of demand

H1 – Dyson company products are exceptions to the law of demand

Data types and Sources

First-hand information gathered specifically for study purposes is known as primary data. It offers insights that are directly related to the topics or goals of the researcher and is unique and unedited. Direct data collection by the researcher is possible through surveys, experiments, and interviews. Contrarily, secondary data is information that is not gathered by the original user. Organisational records, government agencies, and data gathered for other types of study are common places for it to have started. The researcher uses secondary data to succinctly support and explain their original data.

Population

It depicts maximum number of people possessing knowledge on the law of demand and also knowing Dyson company and its products.

Sampling frame

It refers to random selection of various people having varied professions.

Sample Size

For the impactful study a sample size of 77 people was selected.

Study Area

The city of Mumbai was considered for the purpose of research. Mumbaikars being highest users of home and personal care appliances in India are expected to have knowledge about Dyson products

Limitations

A Few limitations to this research study are

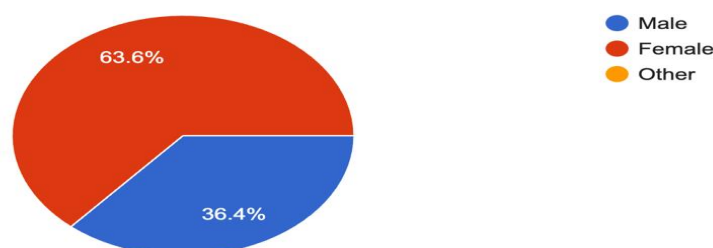
- limited or restricted sample size was selected
- Time crunch didn't permit personal visit to company outlets.
- Due to high cost, physical meeting with the respondents was prevented
- Respondents' bias would affect the research outcome.

Data Analysis

WE TOOK THE SURVEY: QUESTIONNAIRE METHOD AND RESULTS WERE AS FOLLOWS: WE GOT 77 RESPONSES TO THE COMPULSORY QUESTIONS ASKED BELOW:

What is your gender?

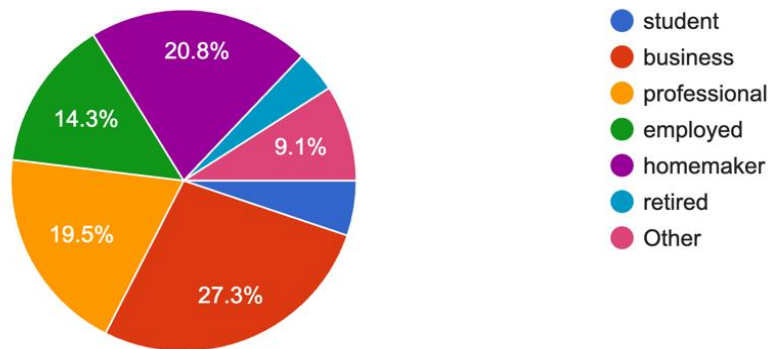
77 responses



Majority of the respondents were females.

What is your profession?

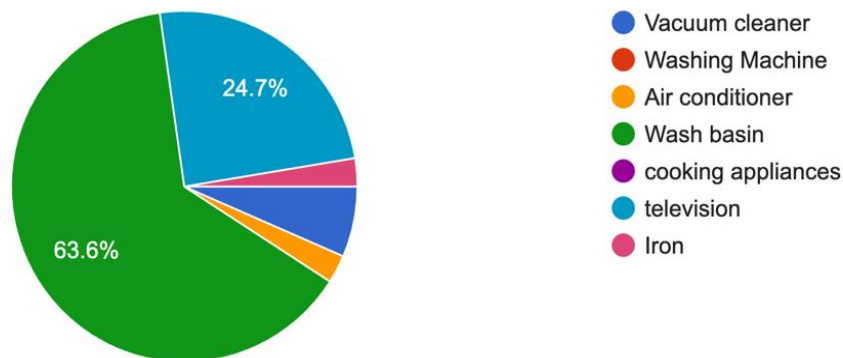
77 responses



Respondents were from various different professions

Which of the following are not home appliances?

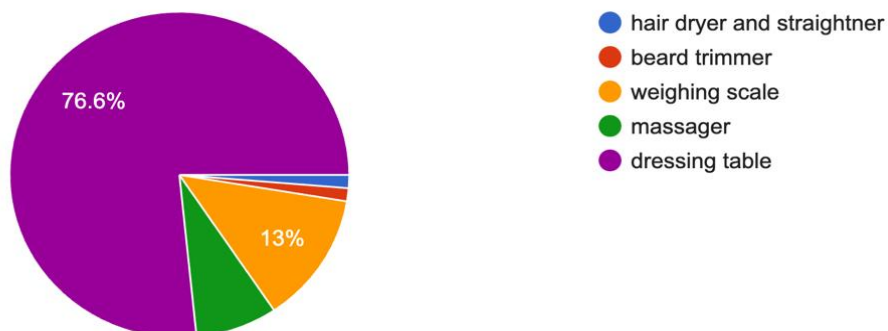
77 responses



Most of the respondents think that wash basins are not a home appliance

Which of the following are not personal care appliances

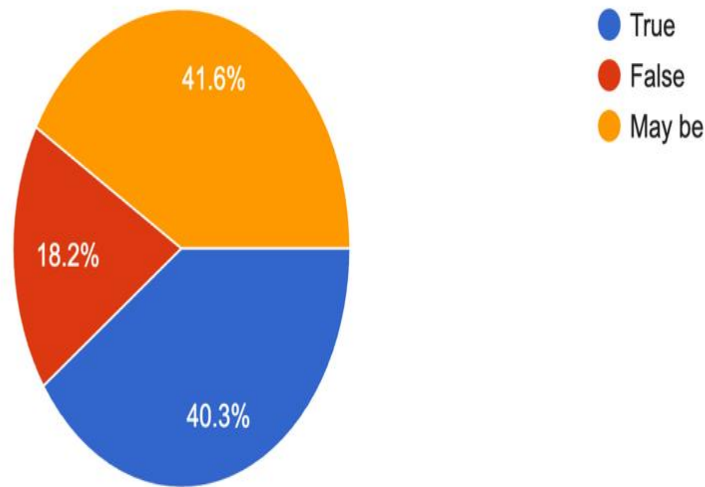
77 responses



It can be concluded that respondents are aware of personal care appliances

Majority of leading home appliances companies also manufacture personal care appliances.

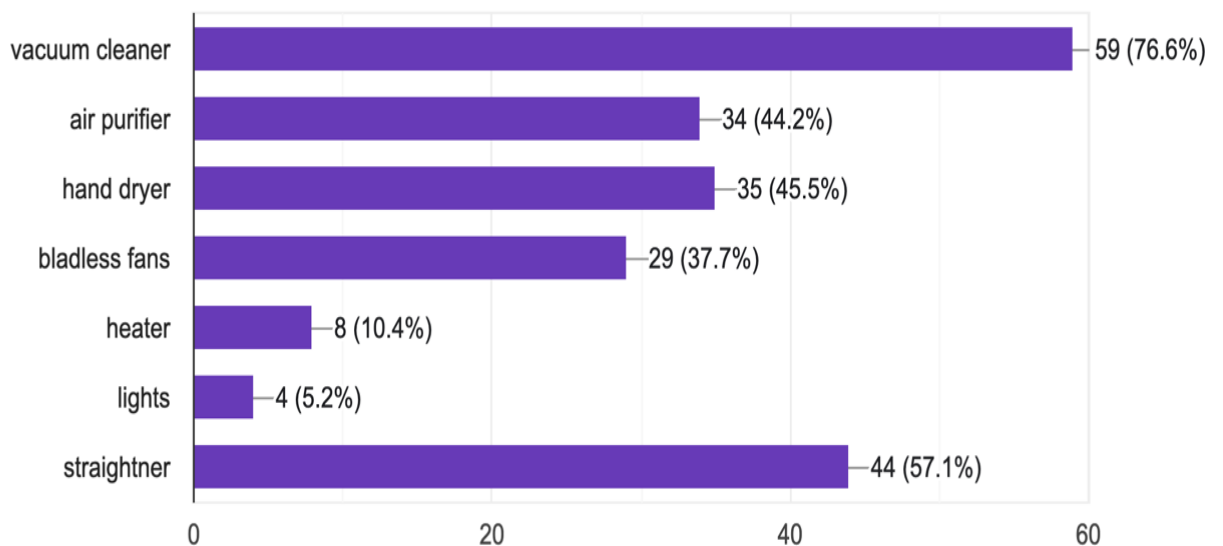
77 responses



The above graph depicts the unsurety of the respondents.

Which of the following Dyson products have you heard of or used?

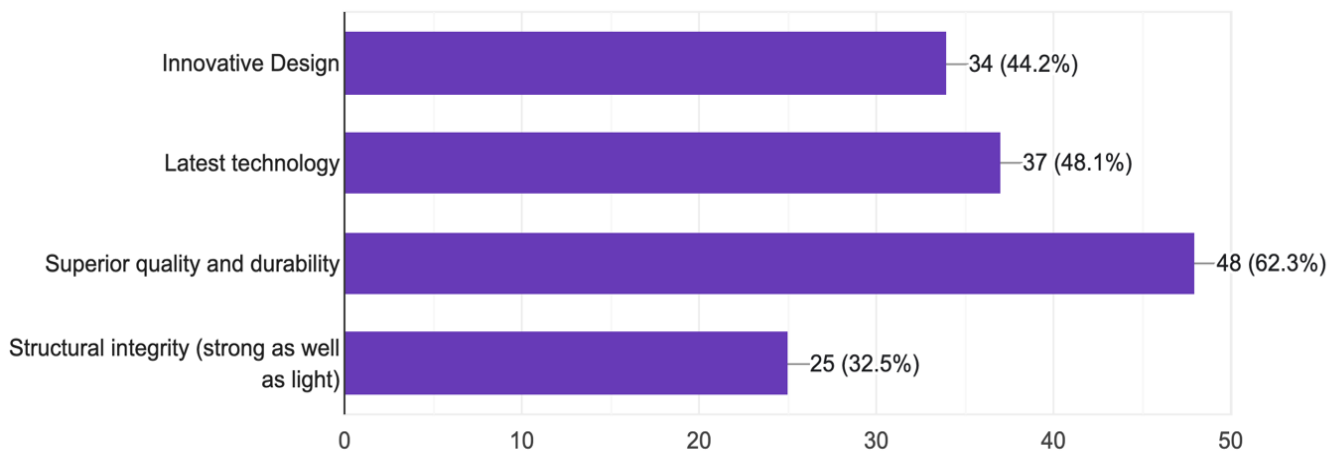
77 responses



Majority of the respondents have heard of or used the Dyson straighteners or vacuum cleaners.

According to you why do customers prefer Dyson products?

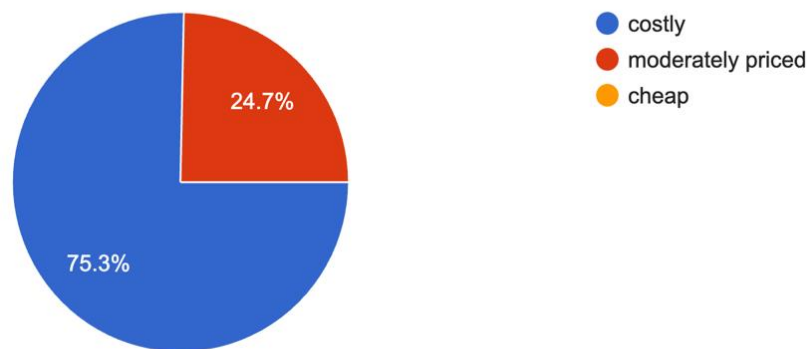
77 responses



There is an almost even distribution of respondents that think customers prefer Dyson products because of their Innovative design, latest technology, and superior quality and durability. This depicts preference for Dyson products is based on various parameters.

As per you, Dyson product prices are...

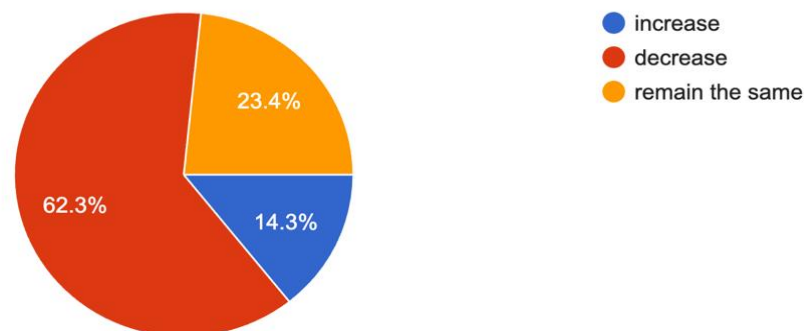
77 responses



Most of the respondents think that Dyson products are expensive.

According to the law of demand with increased prices of the goods, the quantity demanded would...

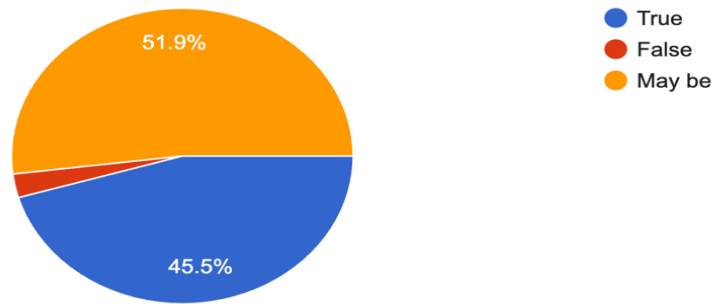
77 responses



A larger part of the sample size think that demand and prices of goods are inversely proportional.

With strong luxury credentials, inspite of increased product prices every year Dyson has still managed to increase its market share through increased sales quantity.

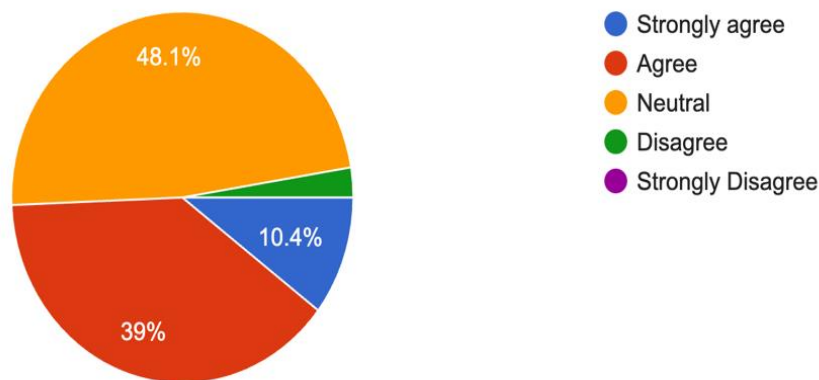
77 responses



Respondents predominantly are either sure that Dysons market share has managed to increase despite of product prices increasing or unsure of such.

With cutting edge products Dyson can be considered as an exception to the law of demand.

77 responses



A greater part of the sample size are neutral or agree to the statement that Dyson could be considered an exception to the law of demand.

Conclusion

Dyson is known for producing top-notch items every time. By carefully examining every aspect, including the materials and production process, Dyson makes sure that its products are extremely dependable and durable. As Dyson caters to highly demanding and competitive markets, it has strong competition with a larger firm such as LG, Samsung, and Bosch. Thus, in addition to creating innovative products, the firm places great emphasis on creating a unified and captivating brand identity

Dyson's rise may be attributed to its wide range of goods, which include cordless vacuum cleaners with digital motors, robotic vacuum cleaners, hand dryers with air blades, fans without blades, humidifiers, purifiers and heaters. Compared to five years ago, when vacuum cleaners accounted for 80% of the company's revenue, this development is significant. The personal care industry was greatly impacted by the revolutionary Dyson Supersonic™ Hairdryer. Furthermore, they didn't stop there; they kept coming out with a tonne of innovations, such the Dyson Air wrap and the Dyson Corrale hair straightener, which cemented the company's standing as a pioneer in innovation. As a result, their ability to innovate new items encouraged them to go beyond the production of Hoover cleaners and broaden their product line.

Dyson's future is bright as long as it keeps innovating and breaking into new areas. In an effort to stay at the forefront of technological innovation, Dyson is probably going to keep concentrating on topics like robots, artificial intelligence, and electric cars. Dyson intends to establish more flagship stores in significant global cities as part of its ongoing retail expansion strategy. In order to produce goods that are both cutting edge and eco-friendly, it hopes to invest in sustainable materials and technology. In order to succeed in the face of heightened competition, Dyson will need to be able to set itself apart via innovation, design, and brand image. Its emphasis on innovation and building a strong brand will probably help it stay ahead of the competition.

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Appendix:

Questionnaire

- 1) What is your gender? *
- Male
 - Female
 - Other
- 2) What is your Profession? *
- Student
 - Business
 - Professional
 - Employed
 - Homemaker
 - Retired
 - Other
- 3) Which of the following are not home appliances? *
- Washing machine
 - Vacuum cleaner
 - Air conditioner
 - Wash basin
 - Cooking appliances
 - Television
 - Iron
- 4) Which of the following are not personal care appliances? *
- hair dryer and straightener
 - beard trimmer
 - weighing scale
 - massager
 - dressing table
- 5) Majority of leading home appliance companies also manufacture personal care appliances *
- True
 - False
 - May be

- 6) Which of the following Dyson products have you heard of or used? *
- Vacuum cleaner
 - Air purifier
 - Hand dryer
 - Bladeless fans
 - Heater
 - Lights
 - Straightener
- 7) According to you why do customers prefer Dyson products? *
- Innovative Design
 - Latest Technology
 - Superior quality and durability
 - Structural integrity (strong as well as light)
- 8) As per you, Dyson Product prices are... *
- Costly
 - Moderately priced
 - Cheap
- 9) According to the law of demand with increased prices of the goods, the quantity demanded would... *
- Increase
 - Decrease
 - Remain the same
- 10) With strong luxury credentials, in spite of increased product prices every year Dyson still managed to increase its market share through increased sales quantity. *
- True
 - False
 - May be
- 11) With cutting edge products Dyson can be considered as an exception to the law of demand. *
- Strongly agree
 - Agree
 - Neutral
 - Disagree
 - Strongly disagree