

A Case Study of Apple's Success in Marketing Through Big Data Analysis

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Abstract: Apple Inc. is one of the most successful technology companies in the world and has been at the forefront of the big data analytics and marketing revolution. The use of big data has become a key element in marketing, and Apple's approach is a good case study for companies seeking to use big data to enhance their marketing strategies. This paper will take it as a case study to discuss how to use big data to promote marketing. This paper will briefly introduce Apple and the concept of big data and marketing, then analyze how Apple applies big data to analyze the market, discuss Apple's successful cases in marketing, and summarize Apple's marketing strategies. A conclusion will be drawn at the end.

Keywords: Apple Inc., marketing, big data

1. Introduction

Apple Inc. is a renowned technology business with headquarters in Cupertino, California, and was formed in 1976. It is well-known throughout the world for its great product quality, superior design, and cutting-edge technology [1]. With its notable practices in big data analytics and marketing, Apple makes and sells consumer electronics devices like the iPhone, iPad, Mac computers, Apple Watch, and AirPods.

With the development of big data analysis, marketing has been digitalized as a crucial business subject in the fourth industrial revolution era, where people move between online and offline realities utilizing connected technology to empower and govern their lives [2]. To better understand how data affected different marketing operations in 2016, Erevelles et al. suggested a conceptual framework that builds on resource-based theory: Three resources—physical, human, and organizational capital—moderate the following: Physical, human, and organizational capital are three resources that govern the subsequent processes: collecting and preserving evidence of consumer behavior as Big Data; deriving consumer insight from Big Data; and utilizing consumer insight to improve dynamic/adaptive capabilities. This case study will examine how Apple employed big data analysis to achieve outstanding marketing performance using this strategy [3].

2. Big Data and Marketing

Big data refers to Large, more diversified, complicated data collections that are challenging to store, analyze, and visualize for additional processing or outcomes [4]. The process of examining those massive amounts of data to reveal hidden patterns and associations is known as Big Data analytics, which helps a company to gain deeper insights and improve its competitiveness [4]. In today's digital age, big data has become one of the most important factors in business competition. Big data can help companies gain insight into consumer needs and market trends. Thus, companies can develop more effective marketing strategies.

Marketing is the process by which companies market their products and services. Marketing requires an in-depth understanding of consumer needs and market trends and the development of marketing strategies accordingly. Technology is creating customer choice, and choice is changing the market [5]. Technology like Big Data analytics plays a big role in Apple's market. Marketing strategies can be achieved in various ways, such as advertising, promotion, public relations, and direct marketing.

3. Apple's Big Data Analytics Practices

Apple has been using big data to analyze the market and consumer behavior. Apple's products use the Apple operating system, allowing it to collect user data. This data includes information about the user's search history, purchase history, time of use, and geographic location, which Apple uses to understand users' interests and needs and to develop more effective marketing strategies. Apple's traditional strength is product design, and big data can play an important role. Siri's voice recognition features are based on big data. Voice data captured by Siri is uploaded to Apple's cloud analytics platform. It compares it to millions of commands entered by other users to improve speech pattern recognition and more accurately match users to the data they are looking for. Siri can access, for example, the restaurant ontology database containing restaurants, cuisines, and dishes, so that after learning, Siri can help users solve problems such as what to eat and where to eat [6]. Users can get more accurate answers to the questions they ask in their daily use.

Apple can also use big data to analyze market trends. Apple can analyze users' search and purchase history to understand popular products and trends in the market, which can be used to launch new products or improve existing products to meet market demand. During the COVID-19 pandemic, the world economy and financial markets were relatively stagnant. Surprisingly, Apple's stock price still grew. This was mainly due to the closure of workplaces, schools, and other services, and most people had to start spending more time at home. People started using their devices for news, consumption, entertainment, and, most importantly, work and study. As a result of these factors, demand for products like iPad tablets and MacBook computers increased. This is evidenced by an 18.6% increase in global sales of these devices to 38.6 million units [7].

4. Apple's Success Stories in Marketing

Apple's marketing practices have resulted in many success stories. The following are a few of these examples:

4.1. Marketing Strategy for iPad

Apple's iPad is a popular product. Apple has made many efforts in marketing the iPad, such as brand promotion, innovative design, User experience, and Pricing strategy.

Apple extensively promoted the iPad brand image in magazines and on the Internet, creating an attractive and strong brand image. Apple made many innovations in the design of the iPad, such as

the use of the M-Series Chips, the voice assistant Siri and Apple Pencil. They have succeeded in capturing the interest of educators in a way that many digital technologies still need to do. They are inexpensive, lightweight, and unencumbered by wires, plugs, and modems. Thus, they attract educators and education policymakers [8].

Apple has always been committed to providing an excellent user experience. iPad's operating system is easy to use and customizable. More excellent synchronization between iPad, iPhone, iPod, and Apple TV will enable users to interact with their electronic applications flexibly and as part of a self-managed overall "ecosystem" that includes financial transactions, entertainment, social networking, and video calling [9]. In addition to being convenient for students' education, iPads are also helpful for other age groups. This also provides a cost-effective option for middle-aged or older people who need a customized health hardware device; for example, the iPad can connect to a biomonitoring device via USB [9]. iPad has improved the lives of older adults. And the use of technology has given rise to closer family ties and led to a greater connection with society. iPads have certainly shortened the digital divide. And Apple adopted a high price strategy to price the iPad, thus establishing a solid brand image in the market.

These strategies have given Apple's iPad high user loyalty and made iPad highly recognizable in the marketplace.

4.2. Apple Music's Marketing Strategy

Apple Music is Apple's music streaming service. Apple Music launched in June 2015. Apple has made many efforts to market Apple Music, such as Subscribe promotion, Artist promotion, Personalized recommendations, and Cross-platform support.

To attract more users, Apple has launched various promotions, such as free trial periods and student discounts. Those who subscribe to the apple music service can hear a variety of music in lossless quality. The clean, simple, and ad-free interface is also a highlight.

Apple collaborated with well-known artists like Taylor Swift to attract young music lovers. Subscribers in different countries can also browse personalized recommendations for local artists on the home page recommendations. Apple's recent introduction of spatial audio and Dolby Atmos has given many old songs a new lease of life.

Apple uses big data to analyze user preferences and behaviors to provide personalized music recommendations. Apple tries to understand the likes and dislikes of its users. This was initially done during the setup process when users were asked to select a bubble on the screen with the name of their favorite artist and click on it if they liked the artist [10]. Apple Music then generates personalized recommendations for users based on the types of songs they usually listen to and the types of music they add to their library. For example, it will provide each person with a personalized random music station based on their taste. Apple provides cross-platform support, enabling users to use Apple Music on iPhone, iPad, Mac, and Windows devices. Silky smooth switching between different platforms greatly enhances the user experience. These strategies have given Apple Music many users and good reviews.

5. Conclusion

One of the ways Apple uses Big Data is to collect and analyze consumer data. Apple gains insight into consumer needs and market trends by tracking user behavior, purchasing habits, and preferences. This data is then used to develop effective marketing strategies, such as targeted advertising and personalized recommendations. For example, Apple uses machine learning algorithms to analyze data from its Apple Music streaming service to recommend songs and playlists that users are likelier to like.

In addition, Apple's marketing approach is centered on customer satisfaction. They prioritize providing high-quality products and services to meet customer needs. This philosophy is evident in how Apple designs its products, which focus on simplicity and ease of use. This indeed defines Apple's personality and helps build brand loyalty and competitiveness.

Apple's success in big data analytics and marketing can be attributed to its integration of technology into the decision-making process, their focus on customer satisfaction, and their strong brand image and awareness. Other companies can learn from Apple's approach and use big data analytics to boost marketing and increase market share.

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