



Analytical solution
in
Information Technology

A case study of Apple Inc Company

Group 7

SUBRAMANI Praveen

BETTINI1 Virginia

MURUGESAN1 Bharanidharan

1. Company Background

On April 1st 1976, the Apple Company Inc. was created thanks to the creative minds of colleague's dropouts Steve Jobs and Steve Wozniak. They had this ambitious shared vision of a real revolution in the way people interact with their computers, by creating a user-friendly computing experience. In fact, the two partners came up with an accessible and compact prototype which could easily fit into people's homes and offices. Very soon, with the advent of Apple 2, the game drastically changed for the computer industry, with the launch of the first-ever colour graphics. Also, sales jumped from \$7.8 million in 1978 to \$117 million in 1980, year when Apple was introduced. And from that point, Jobs started to introduce very innovative products, like iPod in 2001 and the iPhone in 2007 with iTunes store and the iPad in 2010. In that time frame, Apple reached a well-recognised reputation of one of the best companies in the world and Steve Jobs its first CEO, due to the substantial contribution given to the famous company. After Jobs' death, many other innovative products landed into the technology market, among which iPhone was the spearhead, considered by many experts: "the most successful product in the world". As a result of this, Apple developed into the first company valued at one trillion dollars in 2018, doubling that figure in 2020. It is clear now that the Apple Inc. is not like the other technological company and there are for sure some exceptional sort of peculiarity that continues to bring the organization to the first position in this field for years now. Accordingly, to this statement, the present essay aims to go through this feature from an analytical perspective, by analysing the challenges and the success of the customer relationship manager. Furthermore, it would like to focus on the very undeniable and concerning privacy issue, wondering how the data privacy could fit and have consequences on the business analytics field.

2. Company's challenges

As per reports in September 2021, Apple was facing several notable challenges based on business analytics. Primarily was the market saturation, in which one of Apple's primary challenges was the overload of its core markets, particularly in North America and Europe. With most consumers already owning Apple devices, finding new avenues for growth became increasingly difficult. Furthermore, the smartphone industry faced stiff competition from rivals like Samsung, Huawei, and Xiaomi. Apple needed to continually innovate and differentiate its products to maintain its market share and premium pricing. There were also a matter of "Supply Chain disruption", in which the COVID-19 pandemic exposed vulnerabilities in Apple's global supply chain. Shutdowns and disruptions

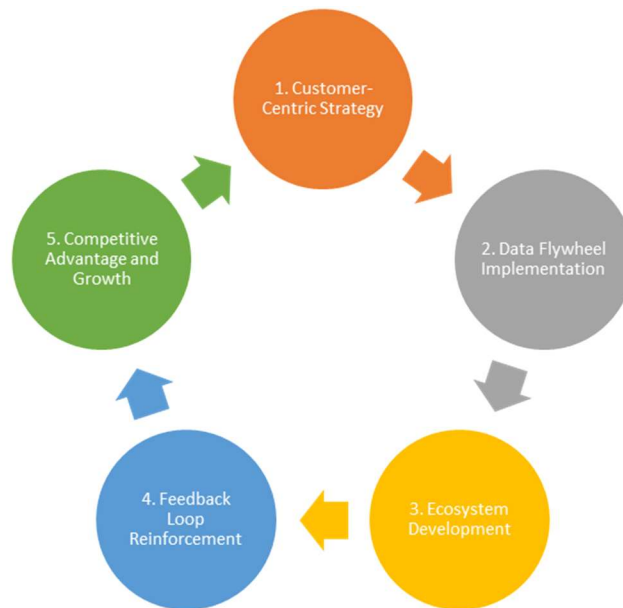
in manufacturing plants and organization networks impacted production, leading to product shortages and delays. Another challenge inspect the fact that Apple was under scrutiny from regulators and lawmakers worldwide, particularly regarding its App Store practices and antitrust concerns. Compliance with evolving regulations while maintaining a user-friendly ecosystem was a complex challenge. In addition to the previous mentioned, the Privacy Balancing Act was under reflex for a while: Apple's commitment to user privacy, while a selling point, raised tensions with advertisers and app developers dependent on user data. Finding a balance between user privacy and the fiscal interests of the broader app ecosystem was a challenge.

3. Forefront Analytics

Apple employs a comprehensive approach to analytics to drive its remarkable success. Descriptive analytics provides invaluable insights into product performance, feature usage, and sales trends across different regions. This information serves as a foundation for informed decision-making in areas such as product development, marketing strategies, and pricing models. Moving beyond mere observations, predictive analytics enables Apple to anticipate future trends, such as projecting quarterly iPhone sales or identifying potential Apple Watch buyers. This foresight empowers the company to optimize its supply chains, tailor marketing initiatives, and develop products that precisely cater to customer demands. However, it is the utilization of prescriptive analytics that truly sets Apple apart. This advanced form of analysis not only predicts outcomes but also prescribes actionable steps for enhanced results. For instance, it guides decisions on setting optimal price points for new iPhone models or prioritizing features for the next iOS update. By incorporating all three types of analytics, Apple ensures a data-driven approach to refining products, services, and marketing strategies. In this manner, Apple's strategic application of analytics exemplifies how data-informed decision-making underpins its monumental success. This multifaceted approach has propelled Apple to the forefront of global commerce, solidifying its status as one of the most triumphant companies in the world.

4. Business Plan for Apple Inc.

Objective: Maximize Customer Lifetime Value (CLV) and leverage the data flywheel for sustained growth



Analyse CLV: (Akula, 2021) as the first step to drive the Apple business plane, in particular by utilizing analytics to measure and understand the total revenue potential of each customer. Consequently, prioritize multi-product ownership by targeting marketing efforts toward existing Apple product owners, fostering loyalty and increased spending . The second step configures in Data Collection and Analysis by continuously gather insights from customer devices and services. Also, the Product Enhancement use data to refine and improve existing products and services, ensuring high customer satisfaction. While attract and retain customers offers enhanced products to draw in new customers and maintain a loyal customer base. Compatibility and Integration is the third step of business planning, through which Apple develop new products that seamlessly integrate with existing offerings, creating a robust ecosystem. The next one regards enhancing the Customer Experience (Ovide, 2021), while providing a seamless and interconnected experience across all Apple products and services. As a consequence, continuous Improvement is necessary for this phase in order to utilize customer feedback and data insights to refine products, ensuring they meet evolving needs and preferences. In addition, the agile development stay responsive to market demands, iterating and adapting products and services swiftly. Lastly, Sustain Data Flywheel Momentum drives to the leveraging of the positive feedback loop to maintain a strong competitive edge and expansion and innovation permits to capitalize on insights to drive innovation, expanding product lines and entering new markets. By leveraging the Customer Lifetime Value theory and implementing the Data Flywheel concept, Apple aims to not only retain its market dominance but also foster sustained growth through customer-centric strategies and continuous product improvement (Böringer et al., 2022). This approach will ensure Apple remains at the forefront of technological innovation and maintains its position as a global industry leader.

5. Value Creation

In this chapter, it is necessary to start from the assumption that, according to the study of Orenga-Roglà and Chalmeta in 2016, it is substantially impossible for the phone companies to maintain a plain and constant rate of client retention for ever. Consequently, it's fair to claim that in the last years, the rate of client retention of Apple has lowered to the 73% from the initial generous 93%. Despite that, Apple Inc. remains one of the biggest organizations in the world, holding over 40% of the US smartphone market and has registered a good 87% brand loyalty across the US and Europe. Also, the NPS score registered in 2022 is 72, which is significantly higher than the average of the NPS score of the consumer electronics industry. In particular, this last two statistics are due primarily to the previously mentioned customer-centric value creation. This type of strategy intends to delight and satisfy clients, as well as feudalising the client by creating an ecosystem of product and services interconnected like Apple Music, iCloud Storage and backup subscriptions in addition to transactional services like App Store, Apple Pay, iTunes and Apple TV. All together, they add an incremental value to the client, by leveraging the power of the devices already in the customer's hands, while also generating incremental high margin revenue for Apple. Furthermore, from 2007, Apple has been using this "Net Promoter Score" NPS, which is a type of index of fidelity and success of the brand from the client point of view. This allows Apple to manage easily all the 500 retail locations, by collecting and sharing the results with the team every day and consequently solving the negative feedback within 24 hours with a personal call from a responsible. It is also powerful because it drives decisions concerning promotions and long-term strategies. Generally speaking, the main strengths that made and maintained the perceptible value of Apple Inc. can be summarized in two points: the "Beyond the need" visionary approach, which not only satisfies the necessities and the desires of the customers but provide a device that performs all the needed task perfectly and in a way that is ultra-portable with a screen usable with fingers. The second reason includes the long-lasting relationship with the client through the "Apple experience", by creating a store where he can experience the product personally and reach the belief for which an apple device can really enrich and benefit his life, giving him a sort of empowerment through the utilisation of the product.

6. Data and Customer Privacy

Apple's approach to data and consumer privacy plays a crucial role in its profound Corporate Social Responsibility (CSR) strategy, particularly within the context of privacy and business analytics. First and foremost, Apple's commitment to user privacy is a fundamental pillar of its CSR strategy. The

company has consistently taken a proactive stance to protect its users' data, emphasizing that privacy is a fundamental human right. Apple's business analytics approach includes anonymizing user data, employing end-to-end encryption, and minimizing data collection to the extent necessary for product functionality. By doing so, Apple seeks to ensure that user data is safeguarded against misuse and unauthorized access. In the realm of business analytics, Apple's approach aligns with its CSR strategy by prioritizing ethical data practices. Rather than exploiting user data for targeted advertising or monetization, Apple's business analytics focus on improving user experience, product quality, and security. This approach respects user choices and reinforces trust, which is vital for the company's long-term sustainability and reputation. Moreover, Apple uses its stance on data privacy as a competitive advantage, differentiating itself from other tech giants. This underscores its commitment to responsible business practices and sets an industry standard for user-centric privacy protection. Apple's iOS 14 had an anti-competitive strategy as a privacy-protecting measure. Apple now restricting non-Apple apps from using information to providing relevant, personalized advertising, without explicit user opt-in. Apple's policy will have the pernicious effects of enhancing the dominance of iOS among mobile operating systems and the dominance of its own apps and services within the iOS ecosystem, while reducing consumer choice and devastating the free-app ecosystem. In summary, Apple's dedication to data and consumer privacy is an integral component of its profound CSR strategy. By prioritizing ethical data practices in its business analytics and promoting privacy as a fundamental right, Apple not only enhances its brand image but also contributes to a broader societal conversation about responsible data usage in the digital age.

7. Personal and critical reflection on the impact of privacy concerns for the business analytics field

Analytics creates value for organizations by helping them make better decisions, improve their efficiency and productivity, reduce their costs, enhance the customer experience, and gain a competitive advantage (Oracle). Apple employs analytics to understand customer behaviour, product performance, and market trends, enabling informed decisions in product development, marketing, and pricing. This includes identifying popular features and receptive markets. Analytics also streamline efficiency, pinpointing production bottlenecks and optimizing supply chains, leading to cost reduction and increased profitability. (Naushad, 2023) Furthermore, Apple personalizes marketing and develops tailored products through analytics, attracting and retaining customers. Lastly, analytics provide a competitive edge by tracking competitor pricing and identifying new market openings, ensuring Apple's continued market leadership.

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