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Analysis of IBM's Success Factors

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Abstract

With the vigorous development of emerging technologies such as the Internet of Things, cloud computing, and artificial intelligence, the global technology industry is undergoing profound transformation. IBM, as a century-old leading technology enterprise, has maintained strong competitiveness and market influence amid constant changes. This paper aims to explore IBM's core success factors through theoretical analysis and PEST-SWOT framework. It focuses on three key dimensions: technological innovation, customer-oriented strategies, and content marketing. Additionally, the paper discusses the role of digital transformation in IBM's development, analyzes the company's internal strengths and weaknesses as well as external opportunities and threats, and puts forward recommendations for its long-term development. The research reveals that IBM's ability to continuously innovate, adhere to customer-centricity, implement effective content marketing, and promote digital transformation is the fundamental reason for its sustained success over more than a century.

Keywords: IBM; Success Factors; Technological Innovation; Customer Orientation; Content Marketing; Digital Transformation; PEST-SWOT Analysis

1. Introduction

1.1 Problem

With the development of the Internet of Things, cloud computing, and artificial intelligence in particular, a new information technology revolution is underway[1]. Technological reforms based on quantum computing and artificial intelligence are also having a wide-ranging impact on businesses, leading to new business models such as Quantum as a Service (QaaS) and advanced AI capabilities[2].

Among the many companies, IBM is one of the leading technology companies in the field of quantum and AI technologies, such as current research on hybrid cloud and AI, etc. IBM was originally founded in 1911 as CTR and later renamed International Business Machines Corporation (IBM). IBM initially focused on mechanical computing devices, actively developing new products and patents, and later shifted its focus to electronic computers[3]. IBM introduced an end-to-end sales service and built advanced information processing systems to capture sales data and take customer interests into account. In the second half of the 20th century, IBM became a global leader in information technology.Throughout the 20th century, the company's economic size grew steadily, and IBM held a share of around 80% of the commercial computer market

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for almost 50 years, dominating the mainframe market[4]. In recent years, IBM has focused on the development of quantum computing and has introduced several quantum computing platforms that are driving technological innovation. Its marketing strategy has also been geared toward digital transformation, with content marketing playing an important role[5].

IBM looks back on over 100 years of history, during which times have changed rapidly and the company has quickly reinvented itself. How has IBM managed to keep pace with the changes of the times? Why has it not been displaced? These are considerations and research questions that are worth exploring..

1.2 Objectives

The aim of this paper is to provide the reader with a clear picture of IBM's success factors, as well as IBM's technological innovations, customer-oriented corporate structure, and a deep understanding of the impact of the market on IBM's success.

2. Theoretical Foundations

2.1 Success Factor

2.1.1 Definition

Success factors are those factors that are largely responsible for the success of a company. They influence the competitiveness, profitability, and growth of a company and are therefore crucial to its long-term development.

2.1.2 Types of Success Factors

Internal success factors: Internal success factors refer to aspects within a company that are responsible for its success, e.g., the USP is becoming increasingly important in view of market saturation and the objective interchangeability of products, as it sets the company's own product apart from competing products through unique advantages and encourages consumers to buy.

External success factors: External success factors are influencing factors that affect the success of a company from outside the company, e.g., customer satisfaction.

2.2 Innovation

2.2.1 Innovation

Innovation is defined as the process of generating new ideas, products, methods, services, or solutions that have a significant positive impact and value.

IBM's focus is on product innovation. This can include innovations in functionality, features, design, performance, or packaging.

2.2.2 Necessities of Innovation

The reasons why product innovations are essential for a company can be categorized into internal and external factors. Internal factors include: securing the company's existence and growth, spreading risk, reducing production costs, and utilizing existing capacities. The main external factor is the limited lifespan of products on the market.

2.2.3 Production planning Process

The path to major innovation is long and winding. First, research must yield important findings. Then, these findings must be translated into useful solutions. Finally, these discoveries must be turned into useful solutions, and new products and processes must be introduced on a large scale in order to transform a particular field or industry.

2.2.4 Needs-based market-oriented search for innovations

The successful conception of an innovation depends above all on the starting point of the innovation process: the recognition, systematic classification, and quantification of market needs, i.e., needs-oriented market segmentation.

2.3 Customer Focus

2.3.1 Term

Customer orientation is about aligning business decisions with the customer. In a customer-oriented corporate culture, the customer plays a particularly important role in shaping the entire value chain. All internal company processes and the organizational structure are consistently geared towards the customer.

2.3.2 Elements of customer orientation on two levels

At the information level, the company needs to gather comprehensive information about customers (and prospects). At the customer level, the decisive factor is how well the insights gained at the information level are implemented. The customer's perspective is crucial here.

2.3.3 Customer selection and customer segmentation

The key to success is enthusiastic customers. That is why customer selection and customer segmentation are used. An essential process is customer categorization, namely ABC analysis. Not only do existing customers have the potential to generate new business, but potential customers who have not yet made a purchase are also important targets.

2.3.4 Customer Satisfaction

Customer relationship management is ranked as the most important factor in the survey. Nevertheless, 80% of companies focus primarily on the financial area when measuring performance, which contradicts their priorities. Although customer satisfaction is considered important by managers, it is rarely measured. Reasons for this include fear of negative feedback, lack of time, and the assumption that such measurements are unsuitable for small businesses.

Some B2C companies collect customer feedback but do not evaluate it because they assume that only extremely satisfied or dissatisfied customers fill out the questionnaires[6]. Research institutes confirm that dissatisfied customers in particular use the feedback options.

2.4 Content Marketing

2.4.1 Term

Content marketing is a strategic marketing approach that aims to create and distribute valuable, consistent, and relevant content to attract and engage a clearly defined audience—and ultimately drive profitable customer action.

2.4.2 Benefits of Content Marketing

It reaches potential and existing clients far beyond its location.

The online presence conveys the necessary trust that makes a decision in favor of the law firm possible in the first place.

Online platforms offer a good alternative when it comes to reaching non-readers.

2.4.3 One of the most powerful marketing tools: blogs

Blog definition: A blog or weblog is a publicly accessible diary or journal published on a website, written and published by at least one author.

Blog function: A blog is a platform on which an author records their thoughts and shares them with others. Typically, a blog is a chronologically descending list of entries.

Blog entries are often written from a first-person perspective. Readers can comment and discuss. A blog not only serves to record information and experiences, but also promotes exchange, similar to an internet forum.

2.5 Digital transformation

Digital transformation is a strategic initiative that integrates digital technologies into all areas of an organization. It evaluates and modernizes the organization's processes, products, operations, and technology stack to enable continuous, rapid, and customer-centric innovation[7].

In companies where big data, cloud computing, mobile, and social technologies are an important part of the infrastructure, these technologies are critical to the company's profitability. These companies typically have higher revenues and market capitalization than their competitors who do not rely on these technologies[8]. However, despite the great potential of these technologies, there are also challenges, including data security issues, lack of interoperability with existing IT systems, and lack of control[9].

3. Using SWOT and PEST analysis to analyze IBM's success factors

This chapter explains SWOT and PEST analysis and illustrates the application of these two analyses in the field of computing.

3.1 PEST ANALYSIS

PEST analysis, which examines political, economic, social, and technological factors in the external business environment, is a fundamental concept that all economics students learn.

PEST analysis examines four categories of external environmental factors, namely

Political factors (P): These include various forms of government intervention and political lobbying in an

economy

Economic factors (E): These mainly include the macroeconomic conditions of the external environment, but may also include seasonal/weather-related factors.

Social factors (S): These include social, cultural, and demographic factors of the external environment.

Technological factors (T): These include technology-related activities, technological infrastructure, technological incentives, and technological changes that affect the external environment.

3.2 SWOT ANALYSE

A SWOT analysis evaluates the internal strengths and weaknesses as well as the external opportunities and threats in an organization's environment. The internal analysis serves to identify the company's resources, capabilities, core competencies, and competitive advantages. The external analysis identifies market opportunities and threats by considering competitors' resources, the industry environment, and the general environment (see Figure 1). The goal of a SWOT analysis is to use an organization's knowledge of its internal and external environment to formulate its strategy accordingly.

3.3 SWOT-PEST ANALYSIS in the field of computing

Both PEST and SWOT analysis are useful tools in the IT industry, helping companies make informed decisions in a rapidly changing market environment. A

company that manufactures computers can use PEST analysis to determine that global demand for environmentally friendly and energy-efficient products is increasing.

SWOT-PEST ANALYSIS at Apple

Since Apple is a typical representative of the computer industry, I will analyze it in this summary using SWOT and PEST to confirm that SWOT and PEST analyses are relevant to the computer industry. This section discusses Apple's strengths (S), weaknesses (W), opportunities (O), and threats (T) using SWOT analysis and examines each of the four components of SWOT analysis in more detail with regard to PEST factors, taking into account political (P), economic (E), social (S), and technological (T) determinants.

Political aspects:

Strengths: Government support and tax deductions

Weaknesses: Long working hours and high pricing strategy

Opportunities: International market and fair competition

Threats: Strict labor and environmental laws and antitrust legislation

Economic aspects:

Strengths: Investment and alliances

Weaknesses: High operating costs

Opportunities: Digital economy

Threats: High unemployment rate and euro crisis

Social aspects:

Strengths: International influence

Weaknesses: Declining customer satisfaction.

Opportunities: Environmental protection and energy conservation

Threats: Competitive pressure

Technological aspects:

Strengths: Innovation, design, and iOS system

Weaknesses: Battery performance

Opportunities: AR technology

Threats: IP issues

Apple Inc. was founded in 1976 and is a leading technology company that develops, manufactures, and distributes a wide range of consumer electronics, software, and online services worldwide. Apple has become one of the most valuable and recognizable brands in the world. The company's values and philosophy focus on simplicity, elegance, and innovation. Apple places great emphasis on user-oriented design and strives to develop products that seamlessly integrate hardware, software, and services.

In terms of environmental sustainability, Apple strives to reduce its environmental footprint and promote responsible manufacturing practices. Brand loyalty, a strong global presence, and continuous innovation have made Apple a leader in the technology industry.

4. Analysis of the IBM case study

This chapter uses a SWOT analysis to examine the factors behind IBM's success and the associated influences.

4.1 Introduction to IBM

IBM was founded in 1911 under the name CTR. The company's goal was to develop hardware and software components for computers.

Mission Statement

We are leaders in the design, development, and manufacture of the industry's most advanced information technologies, including computer systems, software, network

systems, storage devices, and microelectronics. And our global network of IBM solutions and services specialists translates these advanced technologies into business value for our customers[10]. We translate these advanced technologies into value for our customers through our professional solutions, services, and consulting companies worldwide.

Vision Statement

We want to be the most successful and significant information technology company in the world. Successful in helping our clients use technology to solve their problems. Successful in introducing this exceptional technology to new clients. Significant because we will continue to be the fundamental resource for many investments in this industry in the future.

IBM's mission is to efficiently develop technology and make it available to customers in order to achieve greater customer satisfaction. Overall, IBM creates added value through its products. IBM's core business is information technology, ranging from hardware to software development. As the figure shows, IBM delivers and creates added value through many functions.

In 2012, IBM was the second-largest company in terms of number of employees, the fourth-largest company in terms of market capitalization, and the ninth-largest company in terms of profitability.

IBM will be granted the most patents in the US in 2021. IBM owns a total of 122,110 patents worldwide, of which 35,080 have already been granted. More than 59% of these patents are valid. The US is the country with the most patent applications from IBM, followed by China and Japan. At the same time, the US appears to be the most important center for research and development and is also the place of origin of IBM. IBM's revenues have increased overall in recent years.

Market share: Five companies — Google, Microsoft, IBM, Baidu, and Amazon — account for nearly 75 percent of revenues in the global generative AI market.

Ranking: Google ranks first with nearly 20 percent market share, followed by Microsoft and IBM with 15 percent and 12 percent, respectively.

IBM has been recognized by Kapost as one of the leading brands in content marketing. Its coordinated content marketing strategy includes initiatives such as Midsize Insider, which targets medium-sized businesses, the Smarter Planet program, and IBM Chef Watson. These initiatives have received numerous awards over the years, including the Digiday Award and the Global Effie Award. These content platforms have also brought IBM a considerable amount of customer contacts and organic engagement: Over 5,000 professionally created, search engine optimized articles Over 425 million search and social media impressions 110,000 social activities Over 1.2 million page views.

Impressions 110,000 social activities. Over 1.2 million page views.

In the first year of the Smarter Planet program, revenues of US$3 billion were generated, resulting in double-digit growth rates in over 6,000 customer collaborations.

4.2 PEST-SWOT analysis at IBM

Political aspects:

Strengths: The boom in the IT industry has drawn the attention of governments to the growing income and employment opportunities in this sector. Many governments in various countries have opened their doors to new IT companies. Tax breaks and infrastructure support are the main focus here.

Weaknesses: They can easily be imitated and replaced by other companies. Many other companies have the same models. The functional structure of the company

organization is one of their weaknesses. Although IT is their most important area, they lose their expertise through the centralization of power.

Opportunities: As a “pioneer” in promoting and implementing a culture of diversity and inclusion for over 100 years, IBM is committed to promoting equal power and opportunities for women in the workplace by developing progressive standards for fairness and equality and opening up dialogue on diversity and inclusion in the private sector.

Treats: Cyberterrorism and cybercrime, Security breaches and copyright issues

Economic aspects:

Strengths: This steady growth underscores IBM's ongoing efforts to expand its business in areas such as hybrid cloud and artificial intelligence.

Weaknesses: Financing

Opportunities: The development of the digital economy has driven innovation and change across all sectors and given new impetus to global economic growth.

The global market has opened the doors to new technologies and hardware components. Many IT consulting and software development companies have launched new products in many other languages, opening up new opportunities for companies to introduce their products in complex areas.

Threats: Lenovo's acquisition of IBM's PC business marks the gradual decline of IBM's PC business and the risk of losing customers.

Strengths: IBM is a strong brand. The company has a strong customer base that prefers IBM because of its brand value and remains loyal to the company in the long term. Over the past ten years, IBM has grown as a brand in the areas of IT operations and strategy consulting, and its customer base has expanded significantly. And they have a good reputation among customers.

The customer is at the heart of IBM's mission, and the language of this statement clearly reflects that spirit. By addressing “our customers” directly, IBM reinforces its firm commitment to identifying and resolving customer pain points. The focus on creating value for the customer reflects IBM's customer-centric business model, which aims to understand customer needs, offer tailored solutions, and cultivate long-term relationships.

Opportunities: Against the backdrop of increasing competition, the homogenization of services, and changing and increasingly heterogeneous customer needs, companies are no longer fixated on short-term business deals, but are focusing their marketing activities on building and maintaining long-term, valuable business relationships. IBM's long history has enabled it to build a large customer base and long-term customer loyalty.

IBM offers high-quality content strategies and achieves remarkable results with them. This is due to their understanding of modern communication, as the digital environment has fundamentally changed the way companies develop, research, and interact with potential solution providers.

Treats: Many local companies have begun offering IT consulting services to their regional customers. They are inexpensive and reliable, but not efficient in their operations. These new market entrants pose a growing threat to the current large companies in the industry.

Strengths: IBM remains the most innovative company in the US. IBM has continuously expanded its product innovations and patents, filing the most patents worldwide in the US every year from 1993 to 2022. In fact, in early 2020, IBM announced that it would pursue “a more selective approach to patenting” and “reallocate talent and resources to achieve high-quality, efficient advances in specific areas such as hybrid

cloud, data and artificial intelligence, automation, security, semiconductors, and quantum computing."

Weaknesses: IBM lacked PC technology. IBM's rapidly growing PC business relied on outsourced software and hardware from Microsoft for the DOS operating system and from Intel for CPU chips. This gave other manufacturers the opportunity to overtake IBM by imitation. The bureaucratic management system also led to significant losses at IBM.

Opportunities: Digital revolution and emerging market

Threats: Many competitors and they have more new products and services.

By 1986, IBM had developed the AS/400 minicomputer to enter the competition. However, DEC was already the market leader in minicomputers. This explains why IBM had many competitors. In 1977, Apple cautiously began selling PCs that had less memory, no databases, slow speed, and low computing power, but were cheap. This may explain why IBM's competitors have more new products or services.

5. Summary

5.1 Key findings

5.1.1 Conclusion

IBM's success factors examine three main points: innovation, content marketing, and customer focus. IBM has always been a pioneer in innovation in the technology sector and a role model for other companies. For over 100 years, IBM has repeatedly undergone major and comprehensive changes, not only in terms of technology, but also in terms of imagination and mindset. IBM originally became known for its punch card machines, and when digital computers replaced early technologies, IBM generated billions in business through fundamental innovations in areas such as software, computer memory, databases, personal computers, and most recently, cognitive computing. IBM has never been alone on its path to innovation, but has always sought partnerships to build strategic relationships, such as collaborating with Evonik at the MIT-IBM Watson AI Lab to accelerate innovation through artificial intelligence, and with Atos to leverage AI and Red Hat OpenShift technology to accelerate the digital transformation of businesses.

With the advent of personal computers and the internet, and more recently mobile computing, these technologies have been transformed into communication devices. IBM leverages this through a content marketing strategy that incorporates customer-centric storytelling and emphasizes content through diverse content formats such as videos, infographics, blogs, etc. to highlight the company's expertise in predicted technology trends. The "Think" blog series and the IBM Institute for Business Value are typical examples of this. In addition, IBM's content personalization work is supported by advanced analytics and segmentation to ensure that website visitors, prospects, and existing customers receive tailored content based on their interests and progress in the buyer journey. By continuously creating high-quality educational content, IBM has firmly positioned itself as a trusted knowledge center in the B2B space, building trust while increasing brand awareness and engagement.

Whether it's technological innovation or content marketing, IBM constantly strives to deliver exceptional shopping experiences and build long-term, trusting relationships through continuous innovation and the integration of AI-driven solutions. IBM brings together all the necessary technologies and services with the ultimate goal of helping customers solve their business problems. One example is improving CRM to enhance the customer experience. The DeepQA project team developed Watson, and customers

in industries ranging from financial services to retail are using Watson to gain new insights, increase productivity, and deliver better customer experiences.

5.1.2 Digital transformation

The series of IBM initiatives is inextricably linked to digital transformation. Digital transformation breaks down barriers between customers, IBM, and products to create new products and services. Digital transformation is about companies redesigning processes and business models, increasing employee efficiency, and improving innovation and personalization of customer/citizen experiences. To achieve this, companies need a digital business platform supported by technology. IBM has integrated a variety of products into a comprehensive Digital Business Automation Platform (DBA), also known as Cloud Pak. Cloud Pak offers AI-driven software that structures and consolidates distributed data in hybrid cloud environments and leverages hyper-automation to increase productivity, reduce processing time, lower CAPEX and OPEX, and enable greater commitment to innovation.

5.1.3 Recommended Action

The above analysis objectively examines IBM's success factors by understanding the company's situation. IBM has proven itself over time, but whether the company can maintain its competitiveness and influence in the long term depends on its ability to adapt to changes in its environment, i.e., its flexibility. And whether it will continue to be able to pursue customer-centric innovation, timely access to customer information, and the updating of high-quality content to build close relationships with customers, which is crucial for the company's long-term development.

5.2 Limitations of this work

This paper is primarily characterized by time constraints. It is not the aim of this paper to consider factors other than those mentioned in the survey, even though it cannot be ruled out that other factors may become relevant in the future.

Since this is a traditional technology company, much of the literature comes from sources that can no longer serve as references and must be marked accordingly. The amount of available material is also limited by the avoidance of confidential and sensitive company data.

5.3 Open questions for future research

With the rapid development of the times, people's needs are constantly changing, and various factors influence each other. IBM must continue to focus on how to deal with ever-changing technological changes, efficiently and promptly access customer information and expectations, and take targeted measures to consolidate old customers and win new ones.

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References

[1] Q. Cheng, C. Sun, X. Zhang, et al., "Short-term load forecasting model and method for power system based on complementation of neural network and fuzzy logic," Transactions of China Electrotechnical Society, vol. 19, no. 10, pp. 53 – 58, 2004.

[2] Fangfang, Research on Power Load Forecasting Based on Improved BP Neural Network. Harbin, China: Harbin Institute of Technology, 2011.

[3] N. Amjady, "Short-term hourly load forecasting using time series modeling with peak load estimation capability," IEEE Transactions on Power Systems, vol. 16, no. 4, pp. 798 – 805, Nov. 2001.

[4] K. Ma, Short Term Distributed Load Forecasting Method Based on Big Data. Changsha, China: Hunan University, 2014.

[5] B. Shi, Y. Li, X. Yu, and W. Yan, "Short-term load forecasting based on modified particle swarm optimizer and fuzzy neural network model," Systems Engineering—Theory and Practice, vol. 30, no. 1, pp. 158 – 160, 2010.

[6] D. M. Gligor and M. J. Maloni, "More is not always better: The impact of value co-creation fit on B2B and B2C customer satisfaction," Journal of Business Logistics, vol. 43, no. 2, pp. 209 – 237, 2022.

[7] K. K. Hotha, "Unleashing the power of innovation in CDMOs through customer-centricity and culture of service," American Journal of Industrial and Business Management, vol. 13, no. 4, pp. 234 – 246, 2023.

[8] S. A. Zahra, "Technology strategy and financial performance: Examining the moderating role of the firm's competitive environment," Journal of Business Venturing, vol. 11, no. 3, pp. 189 – 219, May 1996.

[9] S. S. Albouq, A. A. Abi Sen, N. Almashf, M. Yamin, A. Alshanqiti, and N. M. Bahbouh, "A survey of interoperability challenges and solutions for dealing with them in IoT environment," IEEE Access, vol. 10, pp. 36416 – 36428, 2022.

[10] D. McNeill, "Global firms and smart technologies: IBM and the reduction of cities," Transactions of the Institute of British Geographers, vol. 40, no. 4, pp. 562 – 574, Oct. 2015.

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