Microsoft Acquisition of Nuance: Purpose, Stylized Facts and Outlook

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Abstract: Microsoft is the one of the giant companies in computer technology, which appears in almost every aspect of our life. However, with the advent of a new era of computer technology, Microsoft is facing the challenge of digital transformation, so it is constantly improving its new technologies and expanding its business territory by acquiring other technology companies. On April 12, 2021, Microsoft completed a significant acquisition which is acquiring Nuance. In this essay, it is going to research the purpose, stylized facts, and outlook of this acquisition. Through analyzing the potential objectives, meaning and business ecosystem of computer technology, this article finds Microsoft acquired Nuance not only to improve its own conversational artificial intelligence technology, but also to develop markets related to healthcare and improve its core competitiveness. Besides, this paper also uses the SWOT analysis to research Microsoft's current situation and better understand its market competitiveness. Finally, this research gives some suggestions to Microsoft depending on its strengths. For example, improving competitive advantages by expanding its service areas through reasonable acquisitions, repairing network security systems, and improving user experience, and paying more attention to product manufacturing and innovation.

Keywords: acquisition, objectives, meaning, competition

1. Introduction

The acquirer, Microsoft, is an American computer technology company that Bill Gates and Paul Allen co-founded in 1975 [1]. The creation of Microsoft is one of the most critical milestones in the history of global computing, as it will be inseparable from all future computer developments. Microsoft began by developing software for the early personal computer, the Altair 8800 [2]. In 1980, it made a significant breakthrough when the two founders licensed the operating system MS-DOS to IBM's personal computers, generating revenue from royalties. In 1985, Microsoft released Windows, becoming the sole holder of the PC software standard. In 1986, in partnership with Goldman Sachs, Microsoft went public at $28 per share [3]. No matter how many new operating systems emerged in the market afterwards, the constantly updated Windows continued to ensure Microsoft's leadership in the software market. To date, Microsoft's market capitalisation stands at US$2.297 trillion (please see Figure 1) [4].
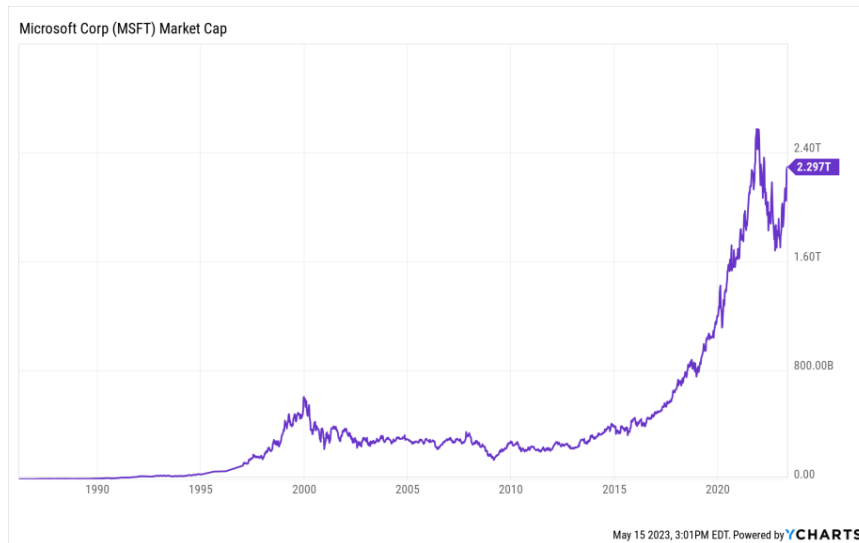
Figure 1: Microsoft Corp (MSFT) Market Cap.
Data source: YCHAETS.COM
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Nuance Communications Inc. is also a technology company founded by founder Ronald Croen in 1992 and listed in 1995, which brings artificial intelligence into everyday life and works through conversational AI innovations, mainly in the healthcare, financial services and retail sectors [5]. Moreover, Nuance's solutions are now used in 77% of US hospitals, providing easier patient access. Microsoft acquired Nuance to build on a successful partnership between the two companies in 2019 [6]. Microsoft enhances Microsoft Healthcare Cloud and other healthcare-related cloud services using Nuance's solutions. On April 12, 2021, Microsoft and Nuance agreed to acquire the company for $56 per share in an all-cash transaction valued at $19.7 billion to reach a better partnership [6].

With the development of science and technology, people's lives are gradually surrounded by artificial intelligence. For example, in the application area of Nuance, when people go to the hospital, their consultation and health records will be converted from paper documents to electronic documents. The AI system will automatically classify these documents, reducing the burden on doctors, facilitating patients, more importantly improving the accuracy and efficiency of the consultation. Such an excellent system is a natural target for acquisition by technology giants. This essay, therefore, focuses on the purpose and significance of Microsoft's acquisition of Nuance and the impact of this acquisition on the artificial intelligence industry.

The following sections of this essay are organized as follows: Section 2 analyzes the potential objectives and meanings of acquisition; Section 3 introduces business ecosystem.

2. Potential Objectives and Meanings of Acquisition

2.1. Strategic Objectives

According to a report on the acquisition by Microsoft Newsroom on March 4, 2022, the core strategic goal of Microsoft's acquisition of Nuance is to enter a new era of artificial intelligence and promote digital transformation. Specifically, Microsoft has a broad business footprint, including electronics, software, games, and more. However, with the digital transformation, various industries have come to rely on AI systems. As one of the leaders of technology companies, Microsoft is also bound to provide cloud services to various industries that need cloud services to promote digital transformation. In the era of artificial intelligence, Microsoft must rely on improving technology and expanding

service areas to protect its leadership. For Nuance, as a pure technology supplier of conversational AI technology, it lacks a strong parent company as a background support, and its development is easily limited. Therefore, the emergence of Microsoft as a leader and planner can bring it into a bigger demand market. Microsoft is looking to acquire Nuance, a leading conversational AI provider, for several reasons. Firstly, the technology, Nuance, only has best-in-class conversational AI and environment [7]. It would have a more secure and optimized cloud service if it could join forces with Microsoft. Secondly, Nuance's experienced and talented staff. For a technology company, skilled staff can provide a solid backbone for the system and support it to run smoothly, while talented staff are like new blood, constantly opening up new technologies. Several employees who are not outside of voice technology at Microsoft, Google or Amazon work at Nuance, so Microsoft's acquisition of Nuance means it has more talent on board. Thirdly, Nuance's customers, Nuance is a good tech company. The areas used in healthcare, mainly finance and retail, all use Nuance technology for IVR, chatbots, transcription, and dictation all the time, so these customers are fixed. Fourthly, Nuance's intellectual property, as Nuance had acquired small innovative technology companies such as Dragon Systems, SpeechWorks, eScription, VoiceSignal Technologies and Vlingo before it was acquired. Nuance also owns the most considerable amount of voice intellectual property in the world [8].

2.2.   Strategic Meanings

This decision by Microsoft to acquire Nuance is undoubtedly the right one; the deal not only provides Microsoft with healthcare AI but also creates the opportunity to build deep partnerships with core healthcare systems. Specifically, firstly, Nuance is an established provider of cloud conversational AI services in healthcare. It is used by over 55% of physicians and 75% of radiologists in the US, and 77% of US hospitals [6]. So with Microsoft becoming the parent company of Nuance, it has transformed itself into the leading provider of conversational technology for healthcare, accelerating Microsoft's cloud strategy for the healthcare industry. Secondly, Microsoft is leveraging Nuance to build deep partnerships in the healthcare sector. For example, Nuance has a long history of working with the Electronic Health Record EHR, the cornerstone of the US healthcare system that manages and stores the health records of US citizens [8]. Hence, the acquisition of Nuance makes it the default provider of voice technology in healthcare. In addition, with the Microsoft-Nuance partnership, they will not be limited to healthcare but will offer conversational cloud solutions for any industry. Nuance can also provide AI expertise for any industry worldwide, such as interactive voice response IVR and digital biometric solutions [6]. When combined with Microsoft Cloud, this expertise will enhance a more complete and comprehensive solution for more companies in the cloud.

3.   Business Ecosystem

3.1.   Industry Competition Pattern

Today, the technology industry is very competitive, growing exceptionally fast, and its creation as a new industry is endless. The rapid development of the technology industry builds on the new era of AI, which has replaced the workforce in many convenient ways thanks to the development of artificial intelligence, which has a higher level of accuracy and productivity than humans and is, therefore, the most competitive aspect of the industry. In recent years, digital transformation has become the paradigm that all industries are facing, and therefore technology companies that can offer more cloud solutions will dominate this era. In addition, there are several reasons for the high level of competition. Firstly, new companies can quickly enter the industry and open new markets. Dropbox, for example, is a young company focusing on cloud backup and file sharing. In an industry crowded with significant companies, Dropbox's revenues reached $1.2 billion between 2015 and 2018 [9]. Secondly, there is no monopoly within the technology industry. Even though Amazon, Alphabet, Apple and

Microsoft are more popular, they are still innovating to bring new technologies and products to the market. Specifically, in 2023, Amazon's market value is $1.05 trillion, and its advantage lies in the low cost of third-party sellers who are consumer-oriented as the sales link [10]. The disadvantage of Amazon is that more and more companies with similar sales models appear, and the tax issues that span sales [10]. For Google, with a market capitalization of $1.032 trillion, it is the first leader of the online search engine with a huge number of views, but it also has a weakness, the privacy policy, and as the largest carrier of information, it is difficult to avoid [11]. For Apple, which has a market value of $2.29 trillion, it has top-notch technology and loyal followers, but the uniqueness of its system also brings it incompatible shortcomings [12]. With such a rapid pace of change, if these tech giants stop innovating, they will be replaced immediately. All in all, the competition within the technology industry is fierce and long-lasting, and the only way to have a place in it is to keep replenishing new technologies yourself.

3.2.   Competitive Prospects after Acquisition

Microsoft started as a young company providing operating systems to other technology companies, relying on taxation as its primary source of income. Until 1990, Microsoft was primarily a supplier to hardware manufacturers. With the popularity of personal computers and technological advances, Microsoft introduced their Windows series, which is still being updated today. Around 2000, Microsoft took part in the game and mobile phone market and the Windows Mobile operating system was used by many buyers, such as Samsung and LG. 2005 saw the release of the Xbox, a gaming console with excellent performance. In a highly competitive environment, Microsoft gained a higher market share by reducing the console's price. In 2011, Microsoft acquired Skype for $8.5 billion, and it gave Microsoft a competitive edge against Apple FaceTime and Google Voice [13]. After that, Microsoft released Office 365, a line of business software that almost everyone has used, including Word, Excel, PowerPoint and others. Since Nuance is a conversational AI company for healthcare, finance, and other industries, it can better develop its cloud strategy and facilitate digital transformation after Microsoft acquires it. Microsoft and Nuance will infuse robust and optimized AI with security-centric, cloud-based solutions that enable organizations across industries to speed up the achievement of their business objectives and needs—strengthening the ability of organizations across industries to scale their impact. According to Canalys, Microsoft is in second place in the technology market with 24% market share, while first place goes to Amazon, which has 31% [13].

Microsoft has long been a giant in the technology industry, standing tall no matter how many young companies emerge. Microsoft has many strengths that can support its operations. Firstly, undisputed software technology, in cloud computing Microsoft has always been the global market leader; secondly, Microsoft is the second largest technology company in the world, with a market capitalization of $2.17 trillion in 2023 and rising [14]; thirdly, Microsoft has a broad market reach, and it is constantly acquiring companies to expand his business footprint; fourthly, a loyal consumer, in 2022, there were 1.2 billion Office users use Microsoft's system, and Microsoft has accumulated a large number of regular customers with its long-term sales [14]. However, Microsoft also has disadvantages. First, fragile cyber security, with frequent crime cases; second, the instability of the PC market, with PC shipments often falling due to fluctuating supplier prices; and third, the lack of innovation in hardware products, in comparison with the volume of products launched by Apple every quarter, Microsoft's computer phones are slow to change generations. In a diversified technology market, there is plenty of opportunities. For example, in the growth of the cloud business, as a result of the acquisition of Nuance, Microsoft launched Microsoft Cloud for Healthcare to meet the needs of healthcare organizations. In addition, artificial intelligence innovation could also present a massive opportunity for Microsoft. However, threats always exist along with opportunities. A highly

competitive environment is the biggest threat that cannot be avoided, and consumer preferences are also a considerably uncertain risk.

4. Conclusion

In conclusion, the acquisition of Nuance is a huge benefit for Microsoft, allowing it to enter a new growth area and improve its market competitiveness. Microsoft's cloud strategy not only provides digital transformation for itself and some ordinary companies, but also enters the field of health care that people care about after the epidemic, which is related to everyone and is indispensable. Nuance also brought mature cloud conversation technology and in-depth partners to Microsoft, stabilizing Microsoft's leading position in the industry. Nuance also got a strong support in this acquisition. In the competitive landscape of the industry, Microsoft will experience fierce competition and need to continuously improve its technology and innovative products to consolidate its position. Nuance is bringing mature conversational AI technology to it and bringing it into the healthcare industry. This allows Microsoft to enter a new field and develop its digital process. At the same time, Microsoft faces many threats and needs to fill the gaps and seize opportunities to maintain its leadership in the technology industry. First, to improve competitive advantage, the service area can be expanded through reasonable acquisitions; second, to repair the network security system and improve user experience; third, to pay more attention to product manufacturing and innovation, to provide consumers with more choices and reduce consumer preferences Impact. Nuance has brought a new field and a good start to Microsoft, bringing Microsoft closer to the artificial intelligence that people need in life, allowing it to better complete its own digital transformation and help other fields to achieve early comprehensive digitalization.

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