



Microsoft's renewal:

The effect a new CEO can have on strategic change and firm performance

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Abstract

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Organizations are challenged by a dynamic, fast-changing environment in most of the industries, often driven by continuous technological innovations. Many companies, and their CEOs struggle in adapting to the new reality and its requirements. To face these challenges, companies have to transform, and need to implement strategic, organizational, and cultural change to stay competitive and profitable.

Scholars have investigated not only the reasons for strategic change, but also the effect a CEO has on strategic change and firm performance, as well as the relevance of a CEO's personality and management style in leading the change process.

To demonstrate a real-life example of these theories, I selected the case about Microsoft's CEO, Satya Nadella. The case intends to demonstrate a strategic reorientation of a global market leader in the tech industry, coming along with a new CEO. Many different changes were implemented in just a short period of only four years, without the company facing a real crisis. The strategic renewal Nadella initiated can be considered as a role model for the need of strategic flexibility as CEO to successfully implement changes. The case clearly illustrates, that Nadella used dynamic managerial capabilities for the transformation of Microsoft, which can be considered as being successful so far. This shows, that he as new CEO had an effect on strategic change and firm performance under rapidly changing environmental conditions. Additionally, Nadella is an example of how his personality influences the way he leads this process of transformation.

Resumo

Título da dissertação: Microsoft's renewal: The effect a new CEO can have on strategic change and firm performance

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Palavras-chave: mudança estratégica, desempenho da empresa, efeito de um novo CEO, renovação, transformação

As empresas são desafiadas por um ambiente dinâmico e volátil na maior parte das indústrias, que é, por sua vez, impulsionado principalmente por contínuas inovações tecnológicas. Muitas empresas e os seus respetivos líderes lutam diariamente para se adaptarem a novas realidades. Para enfrentar esses desafios, as empresas precisam não só de se transformar, mas também implementar mudanças estratégicas, organizacionais e culturais para se manterem competitivas e lucrativas.

Os investigadores procuraram não apenas as razões para a mudança estratégica, mas também o efeito que um CEO tem na mudança estratégica e no desempenho da empresa, bem como a relevância da personalidade e do estilo de liderança deste na condução do processo de mudança. Para demonstrar um exemplo real dessas teorias, selecionei o caso do CEO da Microsoft, Satya Nadella. O caso pretende demonstrar uma reorientação estratégica de um líder de mercado global na indústria tecnológica, com um novo CEO. Muitas mudanças foram implementadas em apenas quatro anos, sem que a empresa enfrentasse uma crise real. O caso de Nadella e da renovação estratégica que ele iniciou podem ser considerados como um modelo para a necessidade de flexibilidade estratégica para implementar mudanças com sucesso, não apenas como empresa, mas também como CEO. O caso ilustra claramente que Nadella foi dinâmico o suficiente para levar a cabo a transformação da Microsoft, que pode, até agora, ser considerada bem-sucedida. Este facto mostra que Nadella, como CEO, tem um efeito sobre a mudança estratégica e o desempenho da empresa num ambiente externo em constante mudança.

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Introduction

Today's business environment is really dynamic, competition is getting more intense, product lifecycles become shorter, sudden upcoming technologies offer new possibilities, and the globalization involves more and more players. As the whole business environment is under continuous change, companies, especially in the technology industry, need to quickly adapt to new environmental conditions to keep up with its competitors and to stay profitable. To do so, organizations often need to adjust their strategy.

Over the past, many scholars have investigated strategic change and the reasons for it. Gioia and Chittipeddi (1991) defined that change does not only mean questioning the status quo, but actually implementing change in several different areas of the company. Miller (1993) found out in his research, that CEO turnover is often associated with such organizational changes. There are some studies concerning the effect a CEO can have on strategic change and firm performance, but little attention has been paid to CEO characteristics. Helfat and Martin (2015) argue, that companies are more successful in adapting and changing if their managers have superior dynamic managerial capabilities, which include managerial cognition, managerial social capital, and managerial human capital. These together can have a positive effect on strategic change, which then can evolve in a competitive advantage for the company. To actually get a better resulting firm performance, an alignment between managerial characteristics and strategic direction is necessary (Thomas & Ramaswamy, 1996). Ultimately, a CEO's strategic flexibility is crucial to quickly react to any changes in the company's environment (Nadkarni & Herrmann, 2010). Moreover, research supported the view, that not always a crisis is necessary to implement strategic change, but rather more often a strategic reorientation aims for guaranteeing a company's long-term viability in a dynamic environment (Gioia & Chittipeddi, 1991).

The aim of my thesis is to answer the following question: Does a new CEO have an effect on strategic change and firm performance, and does a CEO's personality influence how he leads this process of transformation? I want to illustrate the effect a new CEO can have by the real-life example of the newly assigned CEO at Microsoft Corporation, Satya Nadella, in 2014. In the years prior to Nadella's appointment, the company had struggled to keep up with its competitors and its dynamic environment. When Nadella took over, he quickly changed several things at Microsoft, such as the mission statement and strategy, and reinvigorated the company's culture to guide the company in a new direction (Nadella, 2017). Four years later, some first results of these changes are visible, while the transformation is still continuing.

This thesis is divided into five different chapters. The first section will cover the Literature Review, where different theoretical concepts about the effect of a CEO on strategic change and firm performance will be analyzed. The next chapter will be the main part of this thesis, which will be the Teaching Case about the strategic change Nadella had implemented at Microsoft in the first four years of his tenure. The third chapter will include the respective Teaching Notes for this case. Conclusively, the last parts will cover a discussion and final conclusion.

Literature Review

In this chapter of the thesis, several academic topics are gathered, compared, and evaluated in order to sustain the following case study. Therefore, three theoretical topics will be explored in more detail, including strategic change, the effect of a new and incumbent CEO on strategic change and firm performance, as well as the influence a CEO's charisma and personality can have.

Strategic change

Until today, there are many diverse definitions and theories about a company's strategy and strategic reorientation under conditions of change. One of the first definitions of strategy as a descriptive concept evolved through the research of Chandler (1962), who described strategy as a key mechanism to change a company's direction. This can have a significant effect on the organizational structure and a firm's performance, including financial measures such as revenue, net income, return on equity, return on assets, enterprise value, profit margin, sales growth, and stock price. Another definition was formulated by Mintzberg (1978, p. 941), who first defined strategy as "the set of consistent behaviors by which the organization establishes for a time its place in its environment". He described strategy-making more as a decision-making process.

Logically, organizations that have been and still are successful with their current strategy, might not see the need for change, or even if they see it, resist necessarily to change. To maintain the current strategy and keep up with the 'status quo' can be only beneficial for a company's performance, if the strategic direction works and the company is part of a stable industry and economic environment (Haynes & Hillman, 2010). Organizations are often discouraged to change their strategy by the managerial stress, which comes along with planning and executing such changes (Snow & Hambrick, 1980).

Greiner and Bhambri (1989) saw in deliberate strategic change the step to changing an existing decision process and its connected strategic matter. Mintzberg (1978, p. 941) viewed strategic change "as the organization's response to environmental change, constrained by the momentum of the bureaucracy and accelerated or dampened by the leadership". He also saw strategies change over time rather quickly and radically, and followed a more process-oriented definition, while other scholars had a more outcome-oriented perspective. Snow and Hambrick (1980, p. 529), for example, defined strategic change as follows: "Strategic change occurs only when the organization (1) modifies in a major way its alignment with the environment and (2)

substantially alters technology, structure, and process to fit the new alignment”. In their opinion, strategic change needs to be associated with those process changes, as well as technological, and structural changes, which are necessary to come up with a new strategic orientation.

Scholars went even further by saying, change at a firm is a process of altering an organization’s current way of acting and thinking, to adapt to a new environment (Gioia & Chittipeddi, 1991). A strategic reorientation is not only about questioning the status quo, but to actually implement changes at several different areas, such as culture, work processes, goals, and maybe even the vision or mission statement. But strategic change can also lead to ambiguity among an organization’s stakeholders and can consequently lead to possible resistance.

However, strategy theorists have further developed theories for reasons of strategic change. Past research supported the view that a poor organizational performance has a significant influence on the motivation for changing the current strategy (Mintzberg, 1978). Later research is rather poor concerning the influence of firm performance on strategic change. Some researchers argued, that a declining firm performance can be seen as a sign for a misalignment between an organization’s current strategy and its environment, and therefore creates the necessity for strategic change (Kiesler & Sproull, 1982). Also, Boeker (1997) found support for a higher tendency of strategic change at a company when organizational performance shows to be rather poor.

To understand organizational activities in a changing environment, managerial and organizational effects play a major role (Adner & Helfat, 2003). The interaction between these two effects make an important difference and can be defined as dynamic managerial capabilities. Adner and Helfat (2003, p. 1012) described them as “capabilities with which managers build, integrate, and reconfigure organizational resources and competences”. This concept is a direct analogy to the dynamic capabilities view, which is defined as the capabilities which enable a company “to integrate, build, and reconfigure competences” (Teece et al., 1997, p. 516).

Further research has shown, that the level of strategic change can have a different impact on firm performance, as slight to moderate changes increase the performance, while moderate to great change leads to a declining performance (Zhang & Rajagopalan, 2010). These results underline the importance that implementing the ‘right’ scale and scope of strategic change is crucial for creating a sustainable competitive advantage.

Moreover, research supported the view, that not always a crisis is necessary to implement strategic change, but rather more often a strategic reorientation aims for guaranteeing a company’s viability in the long-term in a changing, dynamic environment (Gioia & Chittipeddi,

1991). They also concluded, that managing strategic change during a crisis might be easier because, without a crisis, there is no pressing rationale for change or a reorientation.

Effect of a CEO on strategic change and firm performance

So far, academic papers have shown the importance of strategic leaders as a crucial factor of firm performance, notably CEOs (Hambrick, 1989). According to Gioia and Chittipeddi (1991, p. 433), “typically, the CEO is portrayed as someone who has primary responsibility for setting strategic directions and plans for the organization, as well as responsibility for guiding actions that will realize those plans.”

Over the past decades, scholars have addressed the questions, whether new CEOs have any impact on firm performance, and if, in which way. Research results have shown, that CEO turnover is associated with organizational change as they process more information in response to poor firm performance (Miller, 1993). Therefore, one could conclude that CEO succession is a good reaction to a negative strategic stagnation, poor performance at an organization, or a changing environment. Boeker (1997) on the other hand, found evidence in his study for chief executive tenure as an important predictor for strategic change, as it had a significant effect on strategic change, while chief executive succession apparently had no significant effect, at all. Westphal and Fredrickson (2001) also mentioned in their research about who actually directs strategic change, that a change of the decision-making strategy is mainly being considered during leader succession. However, new CEOs are most of the time under pressure to perform and to show their skills. This is often more difficult for them, if they maintain the status quo of a company, so they rather implement at least some kind of change (Ocasio & Kim, 1999).

Before, scholars have identified new CEOs, especially those hired from outside of the company, to be the initiator of strategic change and the ones who define the new direction for the organization (Greiner & Bhambri, 1989). Others also have supported the view of CEOs determining the firm’s strategic direction and a change of this direction is predicted by the CEOs’ previous experiences (Boeker, 1997). Additionally, scholars argued, that CEO turnover, followed by changes, increases stock price volatility, which again supports the view of the importance of CEOs, because of the significant impact this can have on a firm, by changing the course of the firm and its performance (Clayton et al., 2005). The same study suggested that forced turnovers lead to a greater volatility than voluntary turnovers.

Along with a new CEO often comes strategic change, but also with incumbent CEOs. According to Gioia and Chittipeddi (1991, p. 446), “the CEO (and ultimately the top management team) can be seen as architects, assimilators, and facilitators of strategic change”. The same research implied that to initiate strategic change, a key factor could be an enthralling vision, to also convince organizational stakeholders of the redirection. Thomas and Ramaswamy (1996), building on the framework of Miles et. al. (1978), found strong evidence about the impact CEOs exert in driving firm performance. Furthermore, their results show that firms, which can achieve an alignment between managerial characteristics and strategic direction, demonstrate a better performance than those firms, which do not have such an alignment. Other research findings have supported the view of CEOs having also a symbolic role while implementing strategic change (Gioia & Chittipeddi, 1991). They inform their employees about the changes, develop a common understanding, encourage and guide them in the right direction, and thus pave the way for the whole change process.

Consistent with the concept of dynamic managerial capabilities, recent research supports the view of managers having a different amount of impact on strategic change and firm performance (Helfat & Martin, 2015). In more detail, the differences in the three core underpinnings, including managerial cognition, social capital, and human capital, end up in differing results. These core underpinnings provide the capacity for changing a company’s strategy (Adner & Helfat, 2003). In their study of measuring the performance of dynamic managerial capabilities, Helfat and Martin (2015) later found evidence for systematic managerial impact on strategic change and the consequential firm performance. The final conclusion is that for managers with greater dynamic capabilities it is easier to adapt and change more successfully, than for those who have less effective or no dynamic managerial capabilities, at all (Helfat & Martin, 2015). Moreover, research brought up that managerial cognition and managerial human capital have an effect on the investment activities of a company in new technical areas, whereby firms can adapt to market changes much easier (Kaplan, 2008).

However, Helfat and Martin (2015) could show in their review, that only a few studies found evidence of a negative effect of a CEO on strategic change and firm performance under conditions of change, as the studies rather show nonsignificant or positive influence. Still, the question about which precise conditions of managerial cognition, human capital, and social capital have a positive or negative influence on strategic change, stays unanswered. Moreover, Zhang and Rajagopalan (2010) found in their study, that a CEO coming from inside of the firm, is more likely to introduce and implement a change of the strategy, which is more in line with

the existing capabilities of the organization. But still, the linkage between a new CEO and the influence on strategic change and firm performance needs to be further explored.

Effect of a CEO's personality and charisma

Some studies also dealt with the questions, whether a CEO's charisma matters and if it has any influence on firm performance. Scholars identified no direct relationship between a CEO's charisma and an organization's performance, measured by shareholder return (Tosi et al., 2004). What they actually found, was equity-holders seemed to value charismatic leadership and environmental uncertainty, although the CEO had no significant influence on firm performance.

But how much does narcissism of CEOs play a role, which includes, for example, the CEO's prominence in the press, relative compensation, or prominence of photographs in the annual reports? Scholars paid little attention to the level of narcissism of CEOs in their research, so far. Chatterjee and Hambrick (2007) studied the effect of CEO narcissism on company strategy and firm performance, and the results showed a positive relation. CEOs tend to generate more extreme performance, because they prefer actions, for example, acquisitions, which attract a lot of attention, resulting in big wins or big losses. However, they have not found any significant results, which support the theory, that more narcissistic CEOs perform better than less narcissistic ones (Chatterjee & Hambrick, 2007).

Because of the continuous changing environmental conditions, CEOs need to have a certain degree of strategic flexibility, to quickly adapt to changes. Nadkarni & Herrmann (2010) theorize that strategic flexibility could have an influence on firm performance and could mediate the relationship between CEO personality and firm performance. Further, they could argue, that a CEO's emotional stability, extraversion, and openness to experimentation increased firm performance by encouraging strategic flexibility.

Another study indicated that if CEOs are perceived as more charismatic, at the same time they seem to also be perceived as more effective (Agle et al., 2006). Therefore, one could draw the conclusion that CEOs matter, but actually this might only be because of halo effects, as there is no solid evidence that charisma really has an influence on a CEO's effectiveness. Moreover, the same research has not brought up any evidence for firm performance benefiting from CEO charisma, not even under environmental uncertainty (Agle et al., 2006). Until today, various studies have failed to do empirical testing on this topic, as it is still in an early stage.

Teaching Case

The Rediscovery of Microsoft's Soul

*"The opportunity ahead for Microsoft is vast, but to seize it, we must focus clearly, move faster, and continue to transform. Our industry does not respect tradition. What it respects is innovation. It is our collective challenge to make Microsoft thrive in a mobile-first and cloud-first world."*¹

– Satya Nadella, CEO, Microsoft Corporation

On Monday morning, February 5, 2018, Satya Nadella took a deep breath when he entered his office in the headquarter of Microsoft Corporation in Redmond, Washington, U.S.. He was thinking about the first day he had entered this office four years ago, on February 4, 2014. On that day, he was announced as the third CEO of Microsoft Corporation, as the successor of Bill Gates and Steve Ballmer. As soon as he would leave this office, probably many people would congratulate him to this anniversary. But was there really a reason to celebrate? What had he achieved with Microsoft over the past four years?

Later that day, he would have one of his important strategic leadership team (SLT) meetings, and he wanted to be fully prepared for a review of his first four years. Nadella heavily relied on this group of executives, who were his partners in the continuing transformation of the company. So far, they had helped and supported him to redirect Microsoft, each of them in their own way, with their own special skills.² All of them together shared a common world-view and were aligned with the new mission, strategy, and culture Nadella had started implementing.

The moment he had taken over the lead at Microsoft, Nadella had two main things in mind: maintaining what Microsoft is good at but making the company's teams work together instead of competing against each other.³ He loved the idea of comparing his intentions to reloading a website, where some things stayed the same while others changed.⁴ But the crucial point of this strategic reorientation was that Microsoft did not face a real crisis, which would have made change actually urgent or inevitable.

Compared to his predecessors, Ballmer and Gates, Nadella brought a whole new management style to Microsoft. He had not only started a cultural rediscovery at one of the most valuable companies in the world and had unveiled a new direction, he had also implemented a new mission statement: "Our mission is to empower every person and every organization on the

planet to achieve more”.⁵ Moreover, he began to shift the company’s focus more toward the cloud, mobile and Artificial Intelligence (AI).

By February 2018, future performance expectations for Microsoft were still high. Nadella’s goal was nothing less than continuing the transformation of the company and making it capable of continuously seeking new opportunities and reacting and adapting to changes in its environment. In 2018, AI would be the big topic everyone talks about.⁶ Competitors such as Amazon, Google, and IBM had already announced progress and brought new possibilities to the market.⁷ To face these competitors and all the upcoming new challenges, Nadella is now questioning himself if he had implemented the right strategic changes over the past four years. And did these changes have a positive effect on the firm performance?

Microsoft’s background and history from 1975 until 2013

1975-2000 – The Gates era

In 1975, Paul Allen and Bill Gates saw the potential to develop an early personal computer (PC), by converting the mainframe computer programming language BASIC.⁸ Shortly afterward, they founded Microsoft in Albuquerque, New Mexico, originating the name from the words microcomputer and software. In the following years, Allen and Gates refined BASIC and invented other programming languages. In 1980, IBM and Microsoft signed a contract whereby Microsoft’s operating system (OS) would be implemented in IBM’s first PC, and IBM would pay Microsoft royalties for every sold PC.⁹ The partnership still allowed Microsoft to sell its OS, MS-DOS, to other companies. This created the path for Microsoft to become the dominant technology company of the PC era. On March 13, 1986, the company’s stock went public with an IPO at NASDAQ, under the name “MSFT”, raising US\$61 million.¹⁰

Microsoft Office was launched for the first time in 1989. Including productivity applications like Microsoft Word and Excel it turned out to be Microsoft’s most successful office product.¹¹ When the company introduced its graphical user interface (GUI) Windows 3.0 in 1990, it further deepened its position in the OS business. By 1993, around one million versions of Windows 3.0 or a succeeding version were sold each month. This brought the Microsoft OS a market share of nearly 90 percent on PCs across the world, which made it the worldwide most used GUI operating system.¹²

In 1995, Windows 95 was launched, and Bill Gates explained that Microsoft would commit to support and enhance the Internet.¹³ Later in August, as a reaction to the first web browser of Netscape, Microsoft released the Internet Explorer.¹⁴ Included in Microsoft Windows, the browser quickly became the dominant browser of the 90s. Under Gates leadership, Microsoft had become one of the most powerful and profitable companies in American history, in the mid-90s.¹⁵

2000-2013 – Ballmer's tenure

In January 2000, Steve Ballmer became the second CEO and president of Microsoft, as successor of Bill Gates. After Windows 95 and Windows 98, followed Windows XP in 2001, which was much faster and more stable than its predecessors.¹⁶ The games console Xbox came to the market in November 2001, followed by a more powerful console, the Xbox 360 in 2005. In the growing gaming market, Microsoft had to face competitors such as Nintendo Wii and Sony's PlayStation.¹⁷

In March 2004, an antitrust legal action was brought up against the company, citing it had abused its dominance with the Windows OS, resulting in a judgment of €497 million (\$690 million).¹⁸ The following years, Microsoft suffered under the fast-changing industry and highly competitive environment. Even before the Great Recession in 2008, the company's stock price had begun to decrease.¹⁹

In 2007, Windows Vista was released. It had struggled to get to the market because of the high satisfaction of the users with Windows XP.²⁰ The first big step in the direction of the cloud computing business was made with the launch of Windows Server 2008, SQL Server 2008 and the Visual Studio 2008.²¹ To keep up with Amazon and its cloud computing platform AWS, Microsoft entered the cloud business with its own platform, Microsoft Azure. This platform used centralized Internet services to offer application software and data storage, which made it possible for users to access it through their local PCs. With the release of Bing in 2009, Microsoft tried to step in direct competition with Google and its web search engine, as they had fallen behind on building an own, world-class search engine.²² Bing further helped the company to jumpstart its move to the cloud business.

Until July 2009, Ballmer had laid off 5,000 employees worldwide, due to the financial crisis and the recession in the PC market over the past years.²³ In 2010, the Windows Phone 7 was launched, for which Microsoft started a cooperation together with Nokia for future mobile communication products.²⁴ The cloud version of the Office programs, Office 365, was launched in 2011, which placed them in competition with other services, such as Google Docs and

Dropbox.²⁵ In the same year, Microsoft acquired Skype, an Internet voice communication service. The Microsoft Surface, the company's first tablet computer with self-designed hardware, was sold for the first time in 2012.²⁶

In 2013, Microsoft took over Nokia's devices and service business and licensed Nokia's patent and mapping service in a \$7.2 billion deal.²⁷ This deal was a late reaction of Microsoft and Nokia to the growing smartphone market, as they had lost ground to Apple's iPhone and Google's Android phones.

Microsoft's past mission and culture

Since 1975, the company's mission statement had always been "a computer on every desk and in every home".²⁸ Set by Bill Gates, this mission had also shaped Microsoft's previous culture. With the aim to democratize computing and to make it accessible to everyone, the main focus had lied on Windows and PCs, for years. However, after years of success, many things had changed for the worst at Microsoft, which let them fall behind their competitors. One reason was, that by a certain point in time, almost every desk and home had a computer, and most people additionally had a smartphone. Another reason was, that at the company itself, bureaucracy had replaced innovation and internal politics had replaced teamwork.²⁹ This let them fail to keep up with its competitors in several different areas, including web search and the smartphone business.

The structure at Microsoft had been described by its employees as rival, a rather competitive than collaborative atmosphere between the different business departments.³⁰ In 2013, Ballmer implemented a fundamental organizational reorientation of the company, which replaced the original five new business units by four new product groups. His "device and service" strategy was a reaction to the changing consumer demand for mobile devices and web-based software.³¹ The main product groups included the *Cloud and Enterprise* (ran by Satya Nadella), *Operating Systems Engineering Group*, *Devices and Studio*, and *Applications and Services Engineering*.

Microsoft's past management philosophy and practices

Although Bill Gates and Paul Allen were the founders of Microsoft, Gates and Ballmer were the two who built Microsoft to what it became in 2014. Gates was a true technology visionary, who always tried to keep Microsoft ahead of envious competitors.³²

During the 90s, according to Nadella himself, there was a true sense of mission and energy under the leadership of Gates, according to the motto “the sky is the limit”.³³ Microsoft’s employees had been mainly motivated by competitive zeal. At its annual global summit, Microsoft presented the latest strategies and demos of new tech products. During these presentations, Gates used to be the kind of leader, who looked off into the future and predicted tech trends and how Microsoft would play a dominant role in it.³⁴ This was one of his ways, to motivate his employees and make them enthusiastic about future innovations. From 2000 on, Gates decided to fight against poverty and hunger in Africa, by starting his own charity program together with his wife.³⁵

When Ballmer took over, he had already been an old college friend of Gates for years and had been working for Microsoft since 1980. Gates had recruited him from Stanford business school.³⁶ Ballmer’s management style was described as passionate, he was a true salesman and marketer.³⁷ For him it was also of high importance to continue coming up with new technological innovations, even if they fail at the beginning.

During the global summits, Ballmer always aimed at uniting the employees and thrilled them with excitement.³⁸ Moreover, Ballmer had personally and aggressively driven the development of the cloud infrastructure.³⁹ He also led the transformation of the Office programs to a cloud service. Under his leadership, they had already missed the revolution of smartphones, but he did not want to miss the cloud revolution, too. In August 2013, Ballmer had surprised everyone when he announced his retirement.⁴⁰ He stepped out of the role by 2014 to ensure change is happening in a deep way at Microsoft.

At the end of Ballmer’s tenure, the culture at Microsoft could be described as rigid, as meetings had been rather formal, and employees cared more about being the smartest person in the room. Further, their main focus had laid on timely delivery, reaching numbers, and detailed planning. The result was a hierarchically business environment, without any spontaneity and no room for creativity or ideas.

However, these two CEOs had made Microsoft once the most valuable company in the world by developing products which hundreds of millions of people use daily. Furthermore, they had shaped many executives, who later ran global businesses in many different sectors. They taught them that software could have not only an impact on the lives of computer hobbyists, but also on the economy and society.⁴¹ One of these executives was Nadella, who became Microsoft’s third CEO.

New leadership, new Microsoft

On February 4, 2014, Nadella was announced as the new CEO of Microsoft. On the same day, Bill Gates resigned as chairman, replaced by John W. Thompson, but stayed as a technology advisor, available for the company.⁴² Ballmer stayed at the Board of Directors, but stepped down from it a few months later, in August 2014.

Satya Nadella was born in Hyderabad, India, in 1967.⁴³ In his youth, he always wanted to become a professional cricket player. Though, during his studies, he became passionate about electrical engineering. After graduating from Manipal University with a Bachelor in electrical engineering, he moved to the U.S. to get a Master of Science in Computer Science at the University of Wisconsin-Milwaukee and graduated in 1990.⁴⁴ A few years later, he finished an MBA at the University of Chicago. In 1992, he married his wife Anu, whom he had known from his childhood in India. Together, the couple got three children, two daughters and a son. For his first job, he worked for the technology team at Sun Microsystems.⁴⁵ In 1992, he joined Microsoft, where he has held a variety of roles in different areas across the company, including enterprise and consumer businesses.⁴⁶ Before he had become the new CEO, Nadella was executive vice president of Microsoft's Cloud and Enterprise Group. In this role, he guided the transformation to the cloud infrastructure and services business.⁴⁷ He has helped to bring Microsoft's database, Windows Server, and developer tools to its Azure cloud.⁴⁸

Nadella had convinced the board members of becoming the next CEO with his approach for a renewal of Microsoft, and with his focus on what he wanted to achieve with the company in the future.⁴⁹ For the transformation, he would use his more than twenty years of experience as an engineer and leader inside Microsoft. In his opinion, an insider instead of an outsider as new CEO would only make sense, if he has a certain degree of credibility while thinking critically about the past, which again would support the change efforts. And Nadella himself had the possibility to say "I/We did these mistakes", instead of an outsider, who would just tell everyone else what they did wrong.⁵⁰ Further, Nadella shared the advice he got from Ballmer and Gates: Not to try to fill in his predecessors' shoes, stay true to himself, without trying to please Gates or anyone else.⁵¹

The new mission

When Nadella rethought the company's purpose, and why it actually existed, he clearly saw the need for a new mission statement. Microsoft had already reached its old mission statement of actually bringing "a computer on every desk and in every home".⁵² So, in the summer of 2015,

Nadella announced a rather vague new mission statement in an email to his employees: “Our mission is to empower every person and every organization on the planet to achieve more.”⁵³

Nadella wanted his employees to ground the new mission statement not only in the world they live in but also in the future they want to shape.⁵⁴ For him, it was essential to regularly communicate the actual purpose of the mission and the company’s ambitions to stay innovative.⁵⁵ The goal was to further create a clear connection between the new mission statement and the cultural reorientation.

The whole transformation process at Microsoft aims to democratize and personalize technology for everyone, and this would be driven by empathy and a continuous desire to empower others.⁵⁶ And empowering people would not only mean to empower just individuals, but also the organizations they build, including institutions such as businesses, hospitals, schools, universities, non-profit organizations, and the government.

Nadella also wanted the company to stand for a certain set of enduring and timeless values, by which each employee should live and stand for. These values include privacy, security, free speech, opportunity, diversity, and inclusion.⁵⁷

The new strategy

Although Microsoft did not directly face a real crisis, a certain degree of change had become necessary. One reason for a new strategy was that after decades of growth, PC sales had reached its peak and had started to decline.⁵⁸ This was bad for the company, as it relied on the royalty payments of every PC sold. Furthermore, the interest of consumers in Windows 8 had declined.⁵⁹ Another reason for change was the next most transformative wave of technology, which would include AI, mixed reality, and quantum computing.⁶⁰ This wave would not only make it necessary for organizations to transform, but also for people and societies. Nadella wanted his employees to build deeper empathy for the customers, so they would better understand and figure out a consumer’s unarticulated and unmet needs.⁶¹ This would not only be about listening to the words the consumers say, but also to understand the deeper sense behind these words, and this requires empathy.

As new CEO, Nadella wanted to realize the new mission and strategy by investing in three interconnected drives:⁶²

1. Reinvent productivity and business processes
2. Build the intelligent cloud platform
3. Create more personal computing

The two trends, mobile, and cloud, built the fundament for the reorientation of Microsoft. That is why Nadella wanted the company to face the challenges of being innovative in the technology industry, by making the company thrive in a mobile-first and cloud-first world while building best-in-class platforms and productivity services.⁶³ The aim would be to help the user being productive no matter where they are and no matter which device they use. These two trends needed to be seen together, because the word mobile, is not just about the mobility of a device, but also about the mobility of experiences possible through the cloud.

However, the responsibilities as CEO also cover generating the best possible returns for the organization's shareholders. Furthermore, Microsoft ensured making business in a socially responsible way, by paying attention to sustainability, accessibility, privacy, and security.⁶⁴ Nadella also emphasized the importance, as a leader, to see and react to external opportunities as well as the internal capabilities and culture, and their interconnectedness. It would be crucial to be prepared for the next wave of innovation and platform shifts, to quickly react to these changes.⁶⁵ Even more important was, to execute appropriate changes internally with high urgency to not fall behind their competitors.⁶⁶ Microsoft employees should never stop questioning the status quo and go on thinking how they can improve things, inside and outside of the company. Nadella also emphasized as key for the company's success the importance of taking nothing for granted and of checking existing assumptions, as soon as new data comes in.⁶⁷

With a "Learn-it-all" strategy, he further encouraged a shift towards a learning culture. One step in this direction was the annual hackathon, when employees got the possibility to hand in a creative idea, to later sell it to their colleagues.⁶⁸ During the presentation week of these ideas, they could also meet each other, find inspiration and learn about what their colleagues were doing in their daily business. In the end, the company's success is driven by its employees, that is why Nadella constantly emphasized the importance of attracting and retaining highly qualified employees.⁶⁹

The new culture

Right at the beginning of his tenure, Nadella made the cultural change at Microsoft his highest priority. The key to it was the empowerment of each individual at the organization at all levels, and to remove any barriers to innovation.⁷⁰ Over the past, Microsoft's employees have started questioning the company's ability to innovate, as they had fallen behind in business areas, such as smartphones. Employees had become tired and frustrated and lacked the motivation to come up with new ideas and plans.⁷¹

According to Nadella, the cultural renewal would take every single employee at each level of the organization. And the model of a culture he wanted to create at Microsoft would not be static, it would be a dynamic learning culture.⁷² The goal was to implement the attitude of a growth mindset, which was based on the belief that every single employee could grow and develop continuously. This change in the employee's mindsets would move the company forward by fostering innovation and going after the next big things.⁷³ Though, there needed to be a certain willingness to lean into uncertainty, to take risks and to not stop moving when mistakes were made. Failure can happen and is part of the growth mindset.

Another important part of the cultural change was to give people space and encourage them to speak and come up with new ideas. Nadella further wanted the culture to be about each employee realizing his personal passions with the help of Microsoft, as a platform for it.⁷⁴ He asked them to connect their passion, if somehow possible, to the company's new mission and culture, because this could support the transformation of the company. In one interview he stated:

*"That's what I want my legacy to be, that anyone who joins our company is able to connect their personal passion and use Microsoft as a platform to realize it."*⁷⁵

Already in 2017, Nadella could say, that there has been a tangible shift of the culture inside of the company. Additionally, he had received positive feedback from his employees. They had recognized cultural change, in the way of how different groups across the company had started working together more than before.⁷⁶

As usual, when change was implemented, there had also been a certain degree of resistance from those employees who feared the unknown. Especially, redirecting and changing the mindsets of far more than 100,000 employees across the world, was a challenge itself. The necessary renewal of Microsoft could only happen, if the organization's culture would be prioritized and confidence would be built, not only inside but also outside the company.⁷⁷

New acquisitions and partnerships

When Nadella took over as CEO, he had the feeling that the company had forgotten how important partnerships had always been and had let the company become successful.⁷⁸ One thing that helped Nadella to build up new partnerships and to make new acquisitions, was the simple fact that he was a new face. He was a new negotiation partner without any negative history or any association with mistrust. That was why, already in the first year of his tenure, Nadella clearly communicated his ambitions to build new and surprising partnerships, while

constantly focusing on adding value for the consumers.⁷⁹ This was a direct answer to the new competitive landscape the company had to face.

First, the acquisition of Nokia Devices and Services was finalized in 2014, which then became a subsidiary called Microsoft Mobile Oy.⁸⁰ Another deal was the company Mojang, known for its video game Minecraft. This acquisition aimed at creating new energy and engagement for the users of Microsoft's mobile and cloud technologies.⁸¹ At the end of 2016, the complete acquisition of the social business network LinkedIn for more than \$26 billion was announced.⁸² The goal was to bring together LinkedIn and Microsoft users and to create more value for them by digitizing their jobs, skills, and trainings.⁸³ Moreover, both companies shared the common desire and commitment to using digital platforms to give more equal opportunities to its users.⁸⁴ Under Nadella, Microsoft started to grow its presence in the education area, by introducing new technology for educational purposes. This included Windows 10 S and the launch of the new Surface Pro 3, which aimed to be a tablet that could actually replace a laptop.⁸⁵

One of the major partnership goals was to also build Microsoft's applications for platforms of its competitors.⁸⁶ Different to the past, it played no longer a role, whether the consumers were using an Apple device, or working on a Linux platform, or with the Android OS. Already in 2014, Nadella announced new partnerships with Apple and Google, to build Office for iOS and Android, to bring it to as many mobile devices as possible.⁸⁷ A version of Office 365 for Apple's new iPad was released as well. Further, Microsoft had started working together with Red Hat, whose product was the Linux platform that actually competed with Windows.⁸⁸ This partnership should make it possible for those companies that built on Red Hat, to also use Microsoft's cloud platform Azure.

Although many of Microsoft's business partners were at the same time its biggest competitors, they worked together in certain areas to create more value for their shared users, while they still competed in other areas. According to Nadella, any company in any industry could be a possible partner in the era of digital transformation.⁸⁹

New products and services

In May 2015, Microsoft released Surface 3, followed by Windows 10 in the same year.⁹⁰ This huge update of its OS made it a Microsoft product at the core of the company's strategy. Windows 10 was also the first update the consumer would get for free, as they usually had to pay for it.⁹¹ With this new version, Microsoft wanted its users to choose Windows 10 because they love it, not because they had to get it. After a year, it had become the most popular version of Windows, with hundreds of millions of users worldwide.⁹²

In the earlier years, Microsoft had failed to adapt to the changing behavior of the consumer and their use of mobile devices. Nevertheless, after they had recognized they had failed to keep up with their competitors in the smartphone business, they tried to differentiate themselves by building a Windows Phone while mainly having organizations in mind.⁹³ This smartphone model would be especially for business customers, including features, which would make it possible to replace a PC.

In 2016, followed the launch of the new SQL Server for Microsoft Azure, with which the company wanted to democratize machine learning in the same way they had done it with personal computing in the 80s.⁹⁴ Azure competed directly with Amazon's cloud platform AWS and was constantly and rapidly growing. By the end of March 2016, the Microsoft HoloLens was released for the first time, so-called mixed reality smartglasses.⁹⁵ It enabled the user to engage with digital content and interact with holograms in the world around them.

The new organizational structure

Nadella also had to arrange some organizational restructuring. In summer 2015, 7,800 employees were laid off, after the company had lost \$7.6 billion due to its mobile-phone business.⁹⁶ In March 2016, the PC and Xbox divisions became one. Later that year, 1,850 workers at Microsoft Mobile Oy had to leave the company.⁹⁷ In September 2016, Nadella announced the formation of a new AI and Research Group. This group united Microsoft's world-class research organization and over 5,000 computer scientists and engineers, whose main focus would lie on AI product attempts.⁹⁸ In November 2016, Microsoft sold its feature phone business for \$350 million.⁹⁹

Since the beginning of 2017, the company is structured in four Engineering Groups and nine Business Functions (see Exhibit 1).¹⁰⁰ The aim of the restructuring was to help Microsoft's employees to learn to build on each other's ideas and collaborate across different business units to create the best possible value for the customers. Microsoft operated its business using three different segments, each consisting of different products and services.¹⁰¹ The first is *Productivity and Business Processes*, which included Office, its cloud version Office 365, Skype, and LinkedIn. The second segment is *Intelligent Cloud*, covering server products and cloud services like Azure, the Microsoft SQL, and Windows Server. The third segment is named *More Personal Computing*, which comprised Windows, Microsoft Surface, Xbox, and search advertising.

Further, Nadella started to introduce the SLT, a team of unified leaders across the company, who aligned with the new mission, strategy and cultural transformation of the company. The

board of directors included thirteen members from different organizations and industries.¹⁰² By the end of 2017, the company had more than 126,000 employees across 190 countries worldwide, of which more than 40 percent were engineers.¹⁰³

The new management style

First of all, for Nadella listening to his employees was the foundation of building a strong connection. The first months of his tenure, Nadella focused on meeting with his leading employees at every level and every part of the company to listen to what they had to tell him.¹⁰⁴ After all these conversations, he tried to answer two essential questions: Why are we here, and what do we do next? His employees hoped they had gotten a new CEO who is willing to make crucial changes at the company, while also respecting the original ideals, such as changing the world.¹⁰⁵

Gates had described Nadella as being humble, forward-looking, and pragmatic during his past leading positions.¹⁰⁶ He worked well together with colleagues from all different business areas and constantly asked questions concerning Microsoft's strategy. Especially, when he became the new CEO, it was important for Nadella to always stay in direct contact not only with the customers, but also with the researchers, and executives from all different levels at Microsoft, and to keep up conversations to fully understand them.¹⁰⁷

Compared to his two predecessors, who had been true extroverts, Nadella could be rather described as an introvert. He also did not hesitate to collaborate with the Microsoft's biggest competitors, such as Apple and Google, as he mainly focused on creating the highest possible value for consumers.¹⁰⁸ Furthermore, Nadella's leading approach was following a sense of purpose and pride in what the company did.¹⁰⁹ This was different, to the envy and combativeness approach of the previous two CEOs.

Nadella said about himself, that all the formative experiences in his life, such as his childhood in India, his immigration to the U.S., as well as being a husband, and father to a disabled son, had shaped his personality and influenced him in his role as CEO.¹¹⁰ His whole life, he had been hungry to learn new things, and his "personal philosophy and passion was connecting new ideas with a growing sense of empathy for other people"¹¹¹.

Along with the new position, Nadella stressed the important role empathy should play at Microsoft in the future. He had always described himself as an empathetic leader. In his definition, an empathetic leader needs to meet people in their daily life, to see how they live and how technology affects their activities.¹¹² Nadella saw empathy as a source of innovation, as it would be necessary to understand the unmet, unarticulated needs of the consumers.

Therefore, empathy would be crucial for the core business at Microsoft, and it helped to stay in touch with the consumers. Further, his employees should always strive to come up and built on new ideas, debate and argue, while still making high quality agreements.¹¹³ He did not want a culture exclusive of “Yes-women” and “Yes-men”.

There were three specific leadership principles Nadella had used right from the beginning in his role as CEO, which had been shaped by his passion and excitement about cricket:¹¹⁴

1. Bolster the confidence of the people you are leading
2. Compete vigorously and with passion in the face of uncertainty and intimidation
3. Put your team first, ahead of your personal statistics and recognition

Microsoft at the beginning of 2018

Over the past years, the computer and technology sector had been growing rapidly and had helped to boost economic growth in countries all over the world.¹¹⁵ Microsoft, as a software publishing company, acted in the computer software industry, which is highly dynamic and competitive. Therefore, changes and new innovations of technologies and business models occurred frequently. Organizations should see such shifts as an opportunity to create new products, or come up with new ideas, which could further transform the industry they operate in. To foster innovation, Microsoft promoted and supported its employees in constant learning of new skills and setting a growth mindset. Therefore, during the fiscal year of 2017, the company had invested \$13.0 billion in research and development, \$1.0 billion more than in the previous fiscal year (see Exhibit 2), which was due to expenses in LinkedIn and a higher investment in the cloud engineering.¹¹⁶

In fiscal 2017, Microsoft made \$90 billion in net revenue, a growth of 5 percent compared to the previous year, and \$21.2 in net income (see Exhibit 3). The commercial cloud revenue exceeded \$18.9 billion, with more than 56 percent growth in one year, which made a share of more than 20 percent of total revenues.¹¹⁷ Exhibit 4 shows a breakdown of Microsoft’s revenues by product line, over the past years. Overall, more than half of Microsoft’s revenues were from outside the U.S., due to the fact that the company was doing business in more than 190 countries worldwide, with subsidiaries in over 120 countries.¹¹⁸ Exhibit 5 gives an overview of customer usage and engagement across different businesses at Microsoft, such as Office 365, the Xbox, and LinkedIn.

At the beginning of 2018, Microsoft made the third place in the ranking of the most valuable companies with a market value of \$664 billion, following Apple (\$869bn) and Alphabet (\$729bn), and before Amazon on fourth position (\$566bn).¹¹⁹ Once, back in 1998, Microsoft Corporation was the most valuable company with a market cap of \$261 billion, when it was leading the PC revolution in making computing devices available to the mass.¹²⁰ Exhibit 6 shows the global value of the brand Microsoft from 2006 to 2017, showing a constant increase over the past four years, and reaching a brand value of \$143.22 billion in 2017.

To Microsoft's main competitors belonged the big tech companies, such as Amazon and IBM in the cloud business, Google with its web browser, and Apple with its hardware products. But, in each of the company's operating segment, and for each product and service within, it faced many more competitors.¹²¹

Would the plan work?

Overall, Nadella believed that Microsoft had achieved much progress, although the company was still changing, and the transformation had not been completed yet. One thing he was sure about, is that he had figured out how to rediscover the soul of Microsoft, and how to define the role of Microsoft as a global company.

So far, under his leadership, Microsoft had transited away from a purely Windows-centric approach to a mobile and cloud focus with the aim to differentiate the company from its competitors. During his tenure, the company's share price had risen by 143 percent in only four years, from a stock price of \$37 to over \$90 (Exhibit 7). This exceeded the previous peak in 2000, with Bill Gates being CEO, by far.

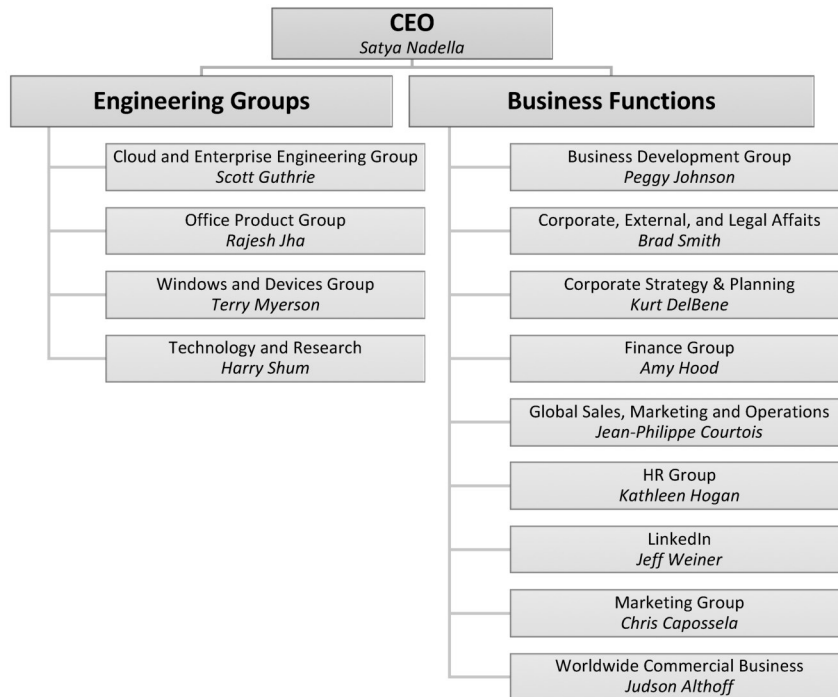
However, Nadella is still questioning himself, how he could continue to reshape the company, to match the emerging opportunities unfolding in the digital economy. This would be one of the main topics of today's SLT meeting. The next wave of technology was coming, while a new industrial revolution was already happening. In Nadella's view, the key technologies for the future would be mixed reality, AI, and quantum computing.¹²² And these trends would inevitably create massive shifts not only in the world's economies but also in its societies. Therefore, Microsoft needs to continue not only to transform its culture, but also its businesses, and to move rapidly.

Leaning back in his chair, Nadella asked himself again, whether he had actually implemented the right strategic change to shift the mindset of one hundred thousand employees. Could he inspire them to shape the future of technology?

Exhibits

Exhibit 1:

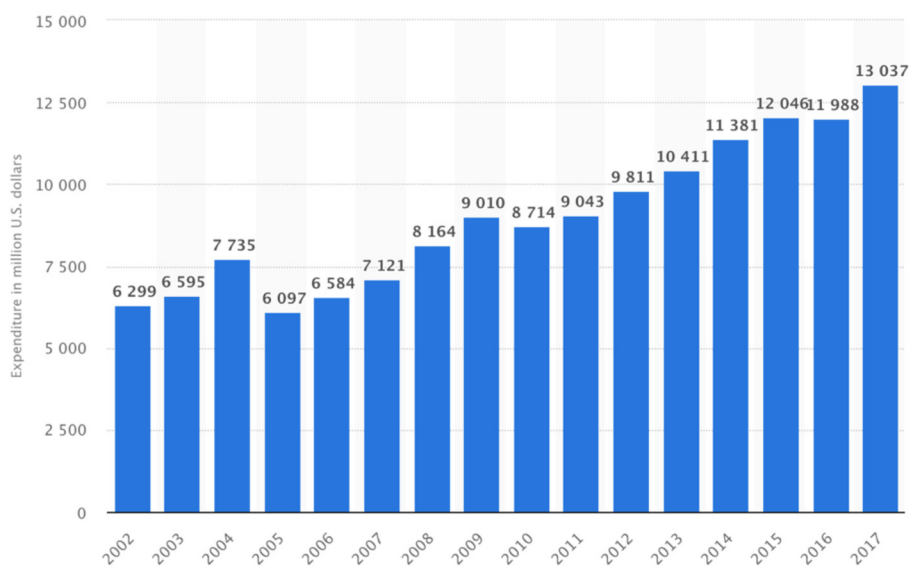
Organizational structure of Microsoft Corporation since January 2017



Source: Microsoft Homepage, Facts about Microsoft, *Microsoft*, 2018, <https://news.microsoft.com/facts-about-microsoft/#BusinessOrganization> (accessed on 17/05/18).

Exhibit 2:

Microsoft's expenditure on R&D from 2002 to 2017 (in million U.S. dollars)



Source: Statista, Microsoft's expenditure on research and development from 2002 to 2017 (in million U.S. dollars), July 2017, *Statista*, 2018, <https://www.statista.com/statistics/267806/expenditure-on-research-and-development-by-the-microsoft-corporation/> (accessed on 18/05/18).

Exhibit 3:

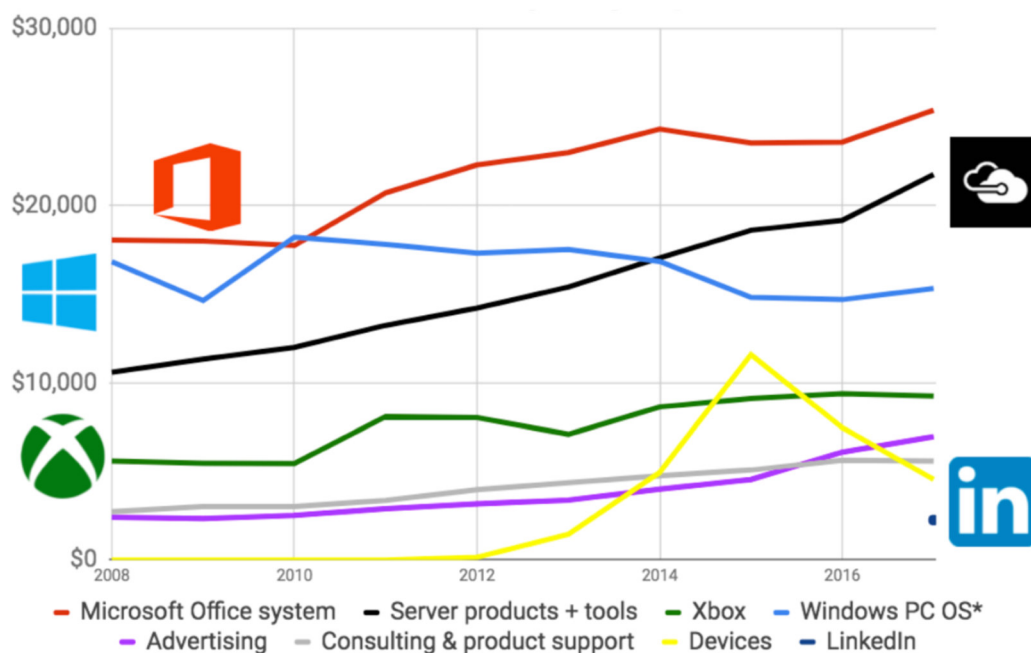
Microsoft's worldwide headcount and revenue growth for the past eleven fiscal years

| Fiscal Year Ending | Head Count | Net Revenue (US\$) | Growth | Net Income (US\$) | Growth |
|--------------------|------------|--------------------|--------|-------------------|--------|
| June 30, 2017 | 124,293 | \$89.50B | 5% | \$21.20B | 26% |
| June 30, 2016 | 114,074 | \$85.32B | -9% | \$16.79B | 38% |
| June 30, 2015 | 117,354 | \$93.58B | 8% | \$12.19B | -45% |
| June 30, 2014 | 128,076 | \$86.83B | 12% | \$22.07B | 1% |
| June 30, 2013 | 99,139 | \$77.85B | 6% | \$21.86B | 29% |
| June 30, 2012 | 94,290 | \$73.72B | 5% | \$16.98B | -27% |
| June 30, 2011 | 90,412 | \$69.94B | 12% | \$23.15B | 23% |
| June 30, 2010 | 88,596 | \$62.48B | 7% | \$18.76B | 29% |
| June 30, 2009 | 92,736 | \$58.44B | -3% | \$14.57B | -18% |
| June 30, 2008 | 91,259 | \$60.42B | 18% | \$17.68B | 26% |
| June 30, 2007 | 78,565 | \$51.12B | 15% | \$14.07B | 12% |

Source: Microsoft Homepage, Facts about Microsoft, *Microsoft*, 2018, <https://news.microsoft.com/facts-about-microsoft/#RevenueHeadcount> (accessed on 17/05/18).

Exhibit 4:







Revenues broken down by product line in millions, from fiscal 2008 to fiscal 2017



Source: Bishop, Todd, New numbers show how Microsoft's biggest businesses are really doing in the cloud era, *GeekWire, LLC*, 2018, <https://www.geekwire.com/2017/new-numbers-show-microsofts-biggest-businesses-really-cloud-era/> (accessed on 17/05/18).

Exhibit 5:

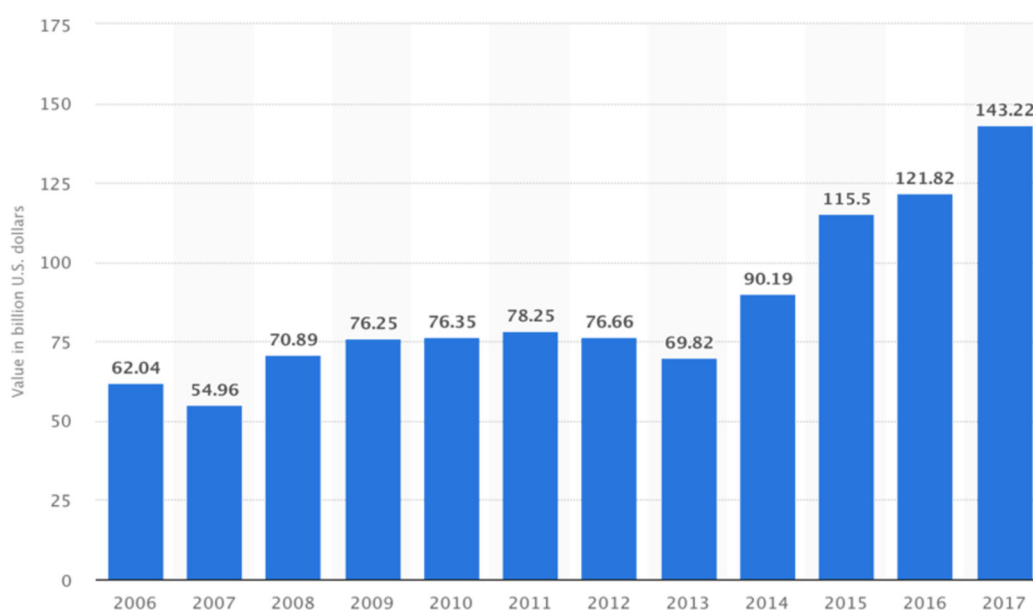
Customer usage and engagement across the different businesses of Microsoft

| Business | Customer usage / engagement |
|--|--|
|  Office 365 <i>Commercial</i> | 100 million |
|  Office 365 <i>Home & Personal</i> | 27 million |
|  XBOX LIVE | 53 million |
|  LinkedIn | 500 million |
|  Microsoft Dynamics 365 | Grew more than 40 percent year-over-year |
|  Microsoft Azure | More than doubled year-over-year |

Source: Microsoft Homepage, Annual Report 2017, *Microsoft*, 2018, <https://www.microsoft.com/investor/reports/ar17/index.html> (accessed on 15/05/18).

Exhibit 6:

Microsoft's global brand value from 2006 to 2017 (in billion U.S. dollars)



Source: Statista, Microsoft's global brand value from 2006 to 2017 (in billion U.S. dollars), June 2017, *Statista*, 2018, <https://www.statista.com/statistics/326058/microsoft-brand-value/> (accessed on 17/05/18).

Exhibit 7:

Microsoft stock price history in US\$: 03/13/1986 to 05/02/2018



Source: macrotrends, Microsoft (MSFT) - 32 Year Stock Price History, *Macrotrends LLC*, 2018, <http://www.macrotrends.net/stocks/charts/MSFT/prices/microsoft-corp-stock-price-history> (accessed on 17/05/18).

Teaching Notes

Overview of the case

This teaching case is about Microsoft's current CEO, Satya Nadella. It demonstrates an example for strategic change at a company, which just reacts to its changing environment without facing a real crisis. It further shows the effect a new CEO can have on strategic change and the performance of a company. The first part of the case serves as an introduction to the topic. It describes the situation the incumbent CEO of Microsoft, Satya Nadella, was facing after the first four years of his tenure in February 2018.

The second part covers Microsoft's background and history over the time period of 1975 to 2013, from its foundation until the year before Nadella had become the third CEO of Microsoft. This part also describes the past mission and culture, as well as the past management philosophy and practices of the company's two previous CEOs, Bill Gates and Steve Ballmer.

The third part, which is the main body of the case, explains the most important things Nadella has changed at Microsoft as soon as he had become the new CEO. This includes a short description of Nadella as a person and his management style. It also covers the new mission, strategy, culture, and organizational structure he had started to implement, as well as the acquisitions, partnerships, products, and services coming along with it.

The fourth part is a snapshot of Microsoft's performance and positioning at the beginning of February 2018. The case closes with some issues Nadella has concerning the future of Microsoft, and whether he had implemented the right strategic change and had been able to actually change the mindset of his employees.

Teaching objectives

This case is designed to be taught to graduate students in the field of management, especially for those with a focus on, or major in, strategy or organizational behavior. It can serve as a role model of a change in leadership, and the effect a new CEO can have on strategic change and consequently on firm performance. It can also serve as an example of a technological company preparing for the next wave of technology, for instance by undergoing a strategic renewal. Additionally, the case sets an example for different changes, which can be implemented as part of a transformation.

This case should introduce the students to the important role of a CEO, especially at a worldwide leading company. Microsoft appeared as an example of a global tech company, which started a turnaround to adapt to the changing consumer behavior and environmental conditions it faced. It should also emphasize the importance of constantly sensing technology changes and trends as CEO, as well as anticipating and monitoring the respective reactions of competitors. It is also relevant to see which direct or indirect effects different kind of changes can have on a firm's performance.

Most of all, the graduate students should understand, that not always a crisis is necessary to undergo change at a company. Nadella would be an example of a new CEO implementing strategic renewal at a company to avoid a crisis in advance. Students should also learn that the personality and previous experiences of a CEO affect his leadership style, actions, and sense for necessary change and new opportunities. Also, the ability of self-reflection as a leader should be emphasized, as this could have a true impact on the success of the implemented changes.

Intended contribution

This case should demonstrate the importance of strategic change for companies and the impact a new CEO, as well as his personality and management style, can have on the renewal of a company, subsequently on the firm's performance. It serves as an example of a CEO sensing a need for change, due to certain external and internal factors, without facing an actual crisis. The Microsoft case further demonstrates different changes, which companies could undergo during a strategic renewal, as well as the first indicators of a successful implementation.

Moreover, the theoretical concept of dynamic managerial capabilities can be applied to this real-life scenario, as they are necessary for sensing and implementing strategic changes and help the CEO adapt more successfully. Nadella is also exemplary for a new company leader coming from inside of the company, not from outside, from another company or even industry.

Pedagogical overview

To be able to analyze and discuss the teaching case the instructor and students should prepare some readings in advance. A basic knowledge of the graduate students about strategic management, strategic change, and firm performance is assumed. The case and the questions, as well as suggested additional material, should be part of the preparation for the class, as the

lecture should mainly be a discussion about the results, papers, materials, and the students' opinions.

First of all, the instructor and students should read and understand the concept of Helfat and Martin about *Dynamic managerial capabilities: Review and assessment of managerial impact on strategic change* (2015), which is an extension to the dynamic capabilities perspective (e.g. Teece, 1997) by focusing on the role of managers. This paper concluded that for managers with greater dynamic capabilities it is easier to adapt and change more successfully, than for those who have no or at least less effective dynamic managerial capabilities.

Furthermore, the instructor could read and recommend the students the book *Hit Refresh*, written by Satya Nadella himself and published in September 2017 (Nadella, 2017). In this book, he elaborates on the continuous transformation of Microsoft and his individual change and past experiences which have influenced who he had become as a leader. He also talks about upcoming trends, such as the impact artificial intelligence might have.

To make the class more varied, the instructor could show the students a clip of an interview with Nadella, for example, the one by Intelligence Squared, the world's leading forum for debate, of October 2017 (iqsquared, 2017). Nadella talks about his journey of becoming Microsoft's new CEO, about the cultural change he had started implementing, and about the impact new innovations of the next wave of technology can have on organizations and people's life.

Overall, the homepage of Microsoft, [microsoft.com](https://www.microsoft.com), is a useful source for getting information about Microsoft's businesses. The annual reports can give insights about the financials and market performance (Microsoft, 2017). Additionally, the students could be given an email Nadella has written to his employees in class, many of them available on the website of Microsoft.

Assignment questions and the analysis

To guide the in-class discussion, students should prepare a couple of questions, depending on the main topic the lecture aims to teach. The students should be promoted to ask why things have happened, and how these issues were related to one another. The case was written to mainly cover the topic of strategic change, and the effect of a new CEO on this change and the resulting firm performance, as well as the role a CEO's personality plays in leading this transformation. Therefore, I recommend the following questions:

Topic: Strategic change and firm performance

Question 1: Why did Nadella see the need for a strategic renewal at Microsoft?

First of all, the answer for this question can be divided into external and internal factors, which could be the reason for the need of implementing different changes:

External factors:

- The shifts in the tech industry over the past until the year 2018, such as the increasing focus on mobility. These trends let new competitors come to the market, such as Amazon, which then became a competitor in the cloud business, while Microsoft and Amazon had never stood in direct competition before.
- Microsoft failing to keep up with its competitors in the smartphone business, coming along with the failed Nokia deal.
- The dissatisfaction of the consumers with Windows 8.
- Overall, Microsoft had suffered under the fast-changing and highly competitive industry environment.

Internal reasons:

- The achieved mission statement, which Gates had implemented in the founding years.
- A non-collaborative, rather competitive atmosphere between the employees.
- A quite hierarchically business environment, without any spontaneity and no room for creativity or ideas.
- The development of the stock prices of the past, as under Ballmer it never got back to its all-time high under Gates in 2000 (see Exhibit 7 of Case).
- PC sales had reached its peak and had started to decline.

Students should take away from this question, that it is important as new and incumbent CEO to sense the need and also urgency for change, and especially to have an awareness for the right kind of change that is actually necessary.

Question 2a: What did Nadella change in the first four years of his tenure? What could be the first indicators of successful changes at Microsoft, so far?

Nadella's actions as new CEO are an example of a proactive change process. To answer the first part of this questions, the students can find all the relevant information and implemented changes in the chapter of the case *New leadership, new Microsoft*. This includes the new mission statement, and the strategic renewal, with a mobile-first and cloud-first strategy, away from the purely Windows-centric approach. Students are also expected to work out the cultural changes, like the introduction of the growth mindset and the learn-it-all approach, as well as a better collaboration among the employees from different departments as one Microsoft. Also, the encouragement of each other's individual strengths, while building up more diversity and inclusion across the teams, is part of the new culture.

Further, the implemented changes also include the new acquisitions, such as LinkedIn, new partnerships, such as those with the competitors Apple and Google, and the new offered products and services, such as Windows 10. Also, Nadella had changed the organizational structure, by building engineering groups and business functions, building new divisions, such as AI & Research Group, and some layoffs.

There are at least some first visible results of the changes students can conclude from this case and the respective exhibits:

- Increasing stock price, by 143 percent between February 2014 and February 2018.
- Growing revenues, especially of the cloud business.
- Growing net income.
- Increasing global brand value over the past four years.
- Improved collaboration among the teams.

However, some of the results of the implemented changes might not be visible yet, rather in the long-term, as Microsoft is still transforming, and according to Nadella still in the very early days of the renewal. Students should also understand, that some numbers, such as the growing stock price, can also be positively influenced by other, external factors, e.g. economic factors or the overall industry performance.

Questions 2b (optional): In your opinion, was it the right kind of change Nadella has implemented in such a short time? Justify your answer.

This question is optional and could be added by the instructor, as it aims at students learning to build an opinion based on what they have studied and can compare it to previous cases they have read. During the lecture, they should share their opinion, and discuss it with their fellow students. Such a discussion will further deepen their understanding of the case and the taught topic.

Topic: Effect of new CEO on strategic change and firm performance

Question 3: To what extent did Nadella's management style and personality contribute to the transformation at Microsoft?

With this question, students should elaborate on the effect a new CEO can have on strategic change. They should understand the advantages of Nadella coming from inside of the company. This includes his twenty years of experience as an engineer and leader inside Microsoft, and his perspective of “we” did something wrong, not just telling his employees what they did wrong. As new CEO, Nadella especially introduced a totally new management style: empathic, collaborative, forward-looking, with direct contact to and total focus on the customer, while trying to get a deep sense of the consumers' needs.

Special about Nadella's personality was his sense of empathy for other people. He wanted the employees to implement it to use it as a source for innovation and to better understand the unmet, unarticulated needs of the consumers. Moreover, he had always focused on listening to his employees and encouraged them to share their opinions about what needed to be changed, right from the beginning of his tenure. Although many things had to change, it was important for Nadella to keep the original ideals of Microsoft. Gates also had described Nadella as humble, forward-looking, and pragmatic, and compared to Gates himself, he was rather an introvert.

His management style covers, for example, the introduction of the dynamic learning culture, the empowerment of each individual at all levels, and his expectations on the employees to never stop questioning the status quo. Further, he had the goal that everyone who joins Microsoft would be able to connect their personal passion to the job. Compared to his predecessors, Nadella had a less combative leading approach. He further expected from his

employees to come up with new ideas and not being a “Yes-woman” or “Yes-man”. At this point, students should mention the set of timeless values Nadella had started implementing, such as diversity, free speech, and opportunity, as well as the three specific leadership principles mentioned in the case.

To conclude, the students should agree that transformation at Microsoft is very much linked to Nadella’s management style and personality.

Question 4: In which way does Nadella show dynamic managerial capabilities?

For answering this question, the students are expected to bring together the results of the research paper of Helfat and Martin (2015) about *Dynamic managerial capabilities: Review and assessment of managerial impact on strategic change*, with the information they get from the case.

First of all, the students should understand the definition of dynamic managerial capabilities, being “capabilities with which managers create, extend, and modify the ways in which firms make a living” (Adner & Helfat, 2003, p. 1012), and the impact it can have on strategic change and organizational performance. For these questions, they need to elaborate why the case of Nadella can be applicated to the theories mentioned in this paper.

Helfat and Martin (2015) also mentioned in their review, that empirical research has shown that managers differ in their impact on strategic change and firm performance. These differences can be led back to differences in the three core underpinnings of dynamic managerial capabilities and their different outcomes: managerial cognition, managerial social capital, and managerial human capital. They enable managers to realize strategic change, strategic renewal in particular, and react to changes in the company’s environment. Therefore, students should find examples out of the case, which support the empirical study for each of these core underpinnings. For example:

- *Managerial cognition*: Nadella’s attention and direct communication to employees and customers, his perception of sensing the unmet, unarticulated needs of the consumers, as well as his “emotional regulation”, by using empathy not only as a source for innovation but also implementing it in his management style.
- *Managerial social capital*: Nadella’s relationships, for example using his family and past experiences as source for his empathy, or his relationships to his previous departments he had worked for, which may help him to sense new opportunities, such

as the growing cloud business, or putting more emphasis on AI. Also building partnerships with competitors, such as Apple, or the acquisition of LinkedIn, can be led back to Nadella's social capital.

- *Managerial human capital*: Here Nadella's learned skills and knowledge in the past should be mentioned, such as being executive vice president of Microsoft's Cloud and Enterprise Group, as well as his years of experiences as an engineer. But also, his personality and values, such as diversity, free speech, and inclusion, shape his human capital. Nadella used these skills and knowledge to not only sense and seize opportunities, but also threats, and to reconfigure all the necessary resources and capabilities of Microsoft to face them.

Board plan

The following table represents a possibility of a schedule for a 90 minutes lecture. It shows the activities, the specific content and the duration of each task:

| Activity | Content | Time (min) |
|----------------------------------|--------------------------------------|------------|
| Review of readings/materials | Research paper & additional material | 20 |
| Review of case | Facts & quick analysis | 10 |
| Questions on strategic change | Question 1 + 2a | 30 |
| Questions on the effect of a CEO | Question 3 + 4 | 25 |
| Conclusion | Key takeaways | 5 |

If the lecture is longer than 90 minutes, the instructor could add further questions, or the students could be shown a clip of the suggested interview by Intelligence Squared. Additionally, the instructor could start a discussion at the end of the class with *Question 2b*.

Discussion

The results of this thesis support the theory of a CEO having an effect on the strategic change of a company, and consequently on the organizational performance under conditions of change. The case of Microsoft is a real-life example of a strategic reorientation of a global company, and possible changes a new CEO can implement, in only a couple of years. It also illustrates the important role of a new CEO in strategic reorientations, and which kind of effect a CEO's personality can have on leading the process of transformation.

First of all, according to the definition of strategic change by Snow and Hambrick (1980), Microsoft definitely underwent strategic change under Nadella's leadership. He did not only adjust the company's alignment with its environment, he also implemented a new structure and new processes to come up with an overall strategic renewal.

Also, in accordance with Gioia's and Chittipeddi's (1991) view about a strategic reorientation, Nadella did not only question the status quo of Microsoft, but also changed things in several different areas, such as culture, values, and a new mission. These two researchers further mentioned, that not always a crisis is necessary for strategic change but aims for a company's viability in the long-term. The example of Microsoft supports this view.

The case also confirms the results of a study, which showed that CEO turnover, followed by changes, increases the stock price volatility and influences the firm performance (Clayton et al., 2005). For Microsoft, the stock price increase during the first four years of Nadella's tenure could be an indicator for successfully implemented change. The case also underlines the theory of Miller (1993), where research has shown, that CEO turnover is associated with organizational change. This, however, contradicts Boeker's (1997) findings of no significant effect of executive succession on strategic change.

The example of Nadella as CEO also underlines the theory that an alignment between managerial characteristics and strategic direction leads to better performance (Thomas & Ramaswamy, 1996). Moreover, as new CEO, Nadella showed dynamic managerial capabilities, defined by Helfat and Martin (2015). Empirical research has shown that managers differ in their impact on strategic change and firm performance, which can be led back to differences in their managerial cognition, managerial social capital, and managerial human capital. Nadella supports the theory that with more effective dynamic managerial capabilities it becomes easier to adapt and change more successfully.

The case of Nadella, as a new CEO coming from inside the company, is not in line with the theory that a CEO hired from outside is the actual initiator of strategic change and the one who defines the new direction (Greiner & Bhambri, 1989). On the other hand, it supports the study of Zhang and Rajagopalan (2010), that a CEO coming from inside of the firm, is more likely to implement strategic change, which is more in line with the existing capabilities of the organization and therefore having a more positive effect on firm performance.

Furthermore, according to Nadkarni and Herrmann (2010), emotional stability, extraversion, and openness to experimentation can increase firm performance by encouraging strategic flexibility. Indeed, Nadella's emotional stability and openness to experimentation encouraged his strategic flexibility, which again helped him to quickly react to changes in the company's environment. However, he is rather an example of an introverted leader, than one who can be described as extroverted.

However, there are some limitations concerning the measurement of the effect a new CEO has on strategic change. Some changes are not visible in the short-term of only a few years, for example the new culture, as the full integration takes a while. The final result of such changes and of how much these changes have influenced Microsoft's performance might become more apparent in the long-term.

Moreover, some initiated changes might look successful after the first four years, in February 2018. But the dynamics of fast-paced changes in the company's environment are somehow unpredictable. This means, that one day there could be a new innovation which could disrupt the market or any other kind of exogenous shock, which could change the perspective on the outcome.

Another limitation is the aspect of Microsoft being one of the largest companies on the globe with strong financial and R&D capabilities. Microsoft simply could afford to invest, to make acquisitions, to experiment, or to bring new products and services to market. This gives Microsoft a competitive advantage compared to companies with less financial headroom.

Furthermore, the behavioral aspect of employees needs to be taken into consideration. To implement so many different changes, especially cultural changes, needs to get employees' commitment and action to adopt the new way of thinking at all levels of the organization. When change is implemented, there is often a certain degree of resistance from those employees who feared the unknown, who prefer to keep the status quo. Therefore, Nadella heavily relies on all leaders, also on those in the lower management positions, to pass on his core values to every single employee at Microsoft. He could never implement such changes on his own.

Future research is still necessary for comparing the different effects of outside vs. inside managers as new CEOs. Furthermore, it still is not clear, which role the personality of a CEO plays in making decisions on strategic change. Overall, the linkage between a new CEO and his actual influence still needs further in-depth research.

The case of CEO Satya Nadella can serve as an example of how a new CEO was necessary for leading a global tech company in a new direction, to become more successful again. It can be a showcase of a reorientation for other incumbent or new CEOs, and which different changes could be implemented. It shows, that sometimes just a new strategy is not enough, and more change is necessary, such as a new culture, organizational structure, or mission. It also serves as an example of how a rather introverted leader was still successful in realizing his ambitions. Other companies can see by the example of Microsoft how an organization can be renewed to react to changes in its dynamic and quickly changing environment, without facing a real crisis. To conclude, the case of Nadella and the strategic renewal he realized as new CEO at Microsoft can be considered as an example of the effect a new CEO can have on strategic change and firm performance. Further, the transformation at Microsoft is very much linked to Nadella's management style and personality.

Conclusion

Overall, research has shown, that a CEO can have an effect on strategic change under changing environmental conditions. Most of the time, CEO turnover is associated with organizational change, and an alignment between managerial characteristics and strategic direction leads to a better performance. In specific, dynamic managerial capabilities are those kinds of capabilities a CEO should have if he wants to implement strategic change. Strategic flexibility, encouraged by emotional stability and openness to experimentation, is another keyword, which will help a CEO to increase firm performance. All this together, should, in the end, lead to a positive effect on organizational performance. But so far, the linkage between a new CEO and his actual influence needs to be further explored.

To support the existing theories with a real-life scenario and to additionally give an example of how a CEO's personality has an effect on leading a strategic reorientation, I selected the case of Microsoft's CEO, Satya Nadella. The case intends to demonstrate a strategic renewal of a global company in the tech industry. Many different changes were implemented in just a short period of only four years, without the company facing a real crisis. These changes included, besides a new strategy, also a new mission, culture, and organizational structure. Nadella's reorientation of Microsoft is an example of a positive effect the CEO can have on strategic change and the resulting performance. Through an analysis of the case, it became clear, that Nadella as new CEO had used dynamic managerial capabilities and had shown strategic flexibility for this transformation.

The main conclusion of this thesis is that a new CEO at a global company indeed can have an effect on strategic change and firm performance under changing environmental conditions, in the case of Microsoft even a positive effect, and that the CEO's personality influences how he leads such a transformation. However, the final result of how much these changes have influenced Microsoft's performance might become more apparent in the long-term. It has further become clear to me how important it is for companies and its CEOs to consistently sense changes and new opportunities in its environment, to quickly adapt to them to stay competitive and keep up firm performance.

References

Thesis

- Adner, R., & Helfat, C. E. (2003). Corporate Effects and Dynamic Managerial Capabilities. *Strategic Management Journal*, 24(10), 1011–1025.
- Agle, B. R., Nagarajan, N. J., Sonnenfeld, J. A., & Srinivasan, D. (2006). Does CEO Charisma Matter? An Empirical Analysis of the Relationships among Organizational Performance, Environmental Uncertainty, and Top Management Team Perceptions of CEO Charisma. *The Academy of Management Journal*, 49(1), 161–174.
- Boeker, W. (1997). Strategic Change: The Influence of Managerial Characteristics and Organizational Growth. *Academy of Management Journal*, 40(1), 152–170.
- Chandler, A. (1962). *Strategy and Structure: Chapters in the History of American Industrial Enterprise*. MIT Press.
- Chatterjee, A., & Hambrick, D. C. (2007). It's all about me: Narcissistic chief executive officers and their effects on company strategy and performance. *Administrative science quarterly*, 52(3), 351–386.
- Clayton, M. C., Hartzell, J. C., & Rosenberg, J. (2005). The Impact of CEO Turnover on Equity Volatility. *The Journal of Business*, 78(5), 1779–1808.
- Gioia, D. A., & Chittipeddi, K. (1991). Sensemaking and sensegiving in strategic change initiation. *Strategic management journal*, 12(6), 433–448.
- Greiner, L. E., & Bhambri, A. (1989). New CEO Intervention and Dynamics of Deliberate Strategic Change. *Strategic Management Journal*, 10, 67–86.
- Hambrick, D. C. (1989). Guest Editor's Introduction: Putting Top Managers Back in the Strategy Picture. *Strategic Management Journal*, 10, 5–15.
- Haynes, K. T., & Hillman, A. (2010). The effect of board capital and CEO power on strategic change. *Strategic Management Journal*, 31(11), 1145–1163.
- Helfat, C. E., & Martin, J. A. (2015). Dynamic managerial capabilities: Review and assessment of managerial impact on strategic change. *Journal of Management*, 41(5), 1281–1312.
- iqsquared. (2017). *Microsoft CEO Satya Nadella on hitting refresh and seizing the opportunity of the digital revolution*. https://www.youtube.com/watch?v=y_doAHdL3v4.
- Kaplan, S. (2008). Cognition, Capabilities, and Incentives: Assessing Firm Response to the Fiber-Optic Revolution. *The Academy of Management Journal*, 51(4), 672–695.

- Kiesler, S., & Sproull, L. (1982). Managerial Response to Changing Environments: Perspectives on Problem Sensing from Social Cognition. *Administrative Science Quarterly*, 27(4), 548–570.
- Microsoft. (2017). Microsoft Annual Report 2017. Accessed on 15. Mai 2018, <https://www.microsoft.com/investor/reports/ar17/index.html>.
- Miles, R. E., Snow, C. C., Meyer, A. D., & Coleman, H. J. (1978). Organizational Strategy, Structure, and Process. *The Academy of Management Review*, 3(3), 546–562.
- Miller, D. (1993). Some Organizational Consequences CEO Succession. *The Academy of Management Journal*, 36(3), 644–659.
- Mintzberg, H. (1978). Patterns in Strategy Formation. *Management Science*, 24(9), 934–948.
- Nadella, Satya. (2017). *Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone*. HarperBusiness.
- Nadkarni, S., & Herrmann, P. O. L. (2010). CEO personality, strategic flexibility, and firm performance: The case of the Indian business process outsourcing industry. *Academy of Management Journal*, 53(5), 1050–1073.
- Ocasio, W., & Kim, H. (1999). The Circulation of Corporate Control: Selection of Functional Backgrounds of New CEOs in Large U.S. Manufacturing Firms, 1981-1992. *Administrative Science Quarterly*, 44(3), 532–562.
- Snow, C. C., & Hambrick, D. C. (1980). Measuring Organizational Strategies: Some Theoretical and Methodological Problems. *The Academy of Management Review*, 5(4), 527–538.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533.
- Thomas, A. S., & Ramaswamy, K. (1996). Matching managers to strategy: further tests of the Miles and Snow typology. *British Journal of Management*, 7(3), 247–261.
- Tosi, H. L., Misangyi, V. F., Fanelli, A., Waldman, D. A., & Yammarino, F. J. (2004). CEO charisma, compensation, and firm performance. *The Leadership Quarterly*, 15(3), 405–420.
- Westphal, J. D., & Fredrickson, J. W. (2001). Who directs strategic change? Director experience, the selection of new CEOs, and change in corporate strategy. *Strategic Management Journal*, 22(12), 1113–1137.
- Zhang, Y., & Rajagopalan, N. (2010). Once an outsider, always an outsider? CEO origin, strategic change, and firm performance. *Strategic Management Journal*, 31(3), 334–346.

Teaching Case

- ¹ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 68.
- ² Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 81.
- ³ Bill Gates Biography, *Bio*, 2018, <https://www.biography.com/people/bill-gates-9307520> (accessed 22/05/2018)
- ⁴ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 65.
- ⁵ Kim, Eugene, Microsoft has a strange new mission statement, June 2015, *Insider Inc.*, 2018, <http://www.businessinsider.com/microsoft-ceo-satya-nadella-new-company-mission-internal-email-2015-6> (accessed on 10/04/18).
- ⁶ Thomson Reuters Report, 2018 AI Predictions, *Thomson Reuters*, 2018, <https://www.thomsonreuters.com/en/reports/2018-ai-predictions.html> (accessed 21/05/2018).
- ⁷ Evans, Bob, Why Microsoft Is Ruling The Cloud, IBM Is Matching Amazon, And Google Is \$15 Billion Behind, February 2018, *Forbes Media LLC.*, 2018, <https://www.forbes.com/sites/bobevans1/2018/02/05/why-microsoft-is-ruling-the-cloud-ibm-is-matching-amazon-and-google-is-15-billion-behind/#5302cfd11dc1> (accessed 18/05/18).
- ⁸ Hall, Mark, Microsoft Corporation, *Encyclopædia Britannica*, 2018, <https://www.britannica.com/topic/Microsoft-Corporation> (accessed on 10/05/18).
- ⁹ Brown, Marcel, IBM signs a deal with the devil, November 1980, *MB Tech*, 2018, <http://thisdayintechhistory.com/11/06/ibm-signs-a-deal-with-the-devil/> (accessed on 29/04/18).
- ¹⁰ Microsoft Homepage, Facts about Microsoft, *Microsoft*, 2018, <https://news.microsoft.com/facts-about-microsoft/> (accessed on 16/05/18).
- ¹¹ Microsoft Homepage, Facts about Microsoft, *Microsoft*, 2018, <https://news.microsoft.com/facts-about-microsoft/> (accessed on 16/05/18).
- ¹² Hall, Mark, Microsoft Corporation, *Encyclopædia Britannica*, 2018, <https://www.britannica.com/topic/Microsoft-Corporation> (accessed on 10/05/18).
- ¹³ Microsoft Homepage, Facts about Microsoft, *Microsoft*, 2018, <https://news.microsoft.com/facts-about-microsoft/> (accessed on 16/05/18).
- ¹⁴ The Editors of Encyclopædia Britannica, Internet Explorer, *Encyclopædia Britannica*, 2018, <https://www.britannica.com/technology/Internet-Explorer> (accessed on 10/05/18).
- ¹⁵ Bloomberg News, Microsoft becomes first \$500-Billion company, *Los Angeles Times*, 2018, <http://articles.latimes.com/1999/jul/17/business/fi-56769> (accessed on 29/04/18).
- ¹⁶ Microsoft Homepage, Facts about Microsoft, *Microsoft*, 2018, <https://news.microsoft.com/facts-about-microsoft/> (accessed on 16/05/18).
- ¹⁷ Microsoft Homepage, Annual Report 2017, *Microsoft*, 2018, <https://www.microsoft.com/investor/reports/ar17/index.html> (accessed on 15/05/18).
- ¹⁸ BBC News, Microsoft loses anti-trust appeal, September 2007, *BBC*, 2018, <http://news.bbc.co.uk/2/hi/business/6998272.stm> (accessed 21/05/2018).
- ¹⁹ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 46.
- ²⁰ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 147.
- ²¹ Microsoft Homepage, Facts about Microsoft, *Microsoft*, 2018, <https://news.microsoft.com/facts-about-microsoft/> (accessed on 16/05/18).
- ²² Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 51.
- ²³ Kneale, Klaus, January 2009 layoffs, February 2009, *Forbes Media LLC.*, 2018, https://www.forbes.com/2009/01/09/january-layoffs-fires-lead-ex_kk_0109january09layoffs.html#2c5954b52d37 (accessed on 12/05/18).
- ²⁴ Olson, Parmy, Nokia and Microsoft announce strategic partnership, February 2011, *Forbes Media LLC.*, 2018, <https://www.forbes.com/sites/parmyolson/2011/02/11/nokia-and-microsoft-announce-strategic-partnership/#100248302e9e> (accessed on 12/05/18).
- ²⁵ Microsoft Homepage, Facts about Microsoft, *Microsoft*, 2018, <https://news.microsoft.com/facts-about-microsoft/> (accessed on 16/05/18).
- ²⁶ Microsoft Homepage, Facts about Microsoft, *Microsoft*, 2018, <https://news.microsoft.com/facts-about-microsoft/> (accessed on 16/05/18).

-
- ²⁷ Microsoft News Center, Microsoft to acquire Nokias devices services business, September 2013, *Microsoft*, 2018, <https://news.microsoft.com/2013/09/03/microsoft-to-acquire-nokias-devices-services-business-license-nokias-patents-and-mapping-services/> (accessed on 21/05/18).
- ²⁸ The blog of Bill Gates, About Bill, *The Gates Notes LLC*, 2018, <https://www.gatesnotes.com/Bio> (accessed on 21/05/18).
- ²⁹ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 1.
- ³⁰ Weinberger, Matt, How Microsoft CEO Satya Nadella did what Steve Ballmer and Bill Gates couldn't, January 2016, *Insider Inc.*, 2018, <http://www.businessinsider.com/satya-nadella-achieved-one-microsoft-vision-2016-1> (accessed on 13/05/2018).
- ³¹ Oreskovic, Alexei, Factbox: The faces behind Microsoft's re-organization, July 2013, *Reuters*, 2018, <https://www.reuters.com/article/us-microsoft-reorganization-factbox/factbox-the-faces-behind-microsofts-re-organization-idUSBRE96A0VH20130711> (accessed on 13/04/18).
- ³² Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 64.
- ³³ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 29.
- ³⁴ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 91.
- ³⁵ The blog of Bill Gates, About Bill, *The Gates Notes LLC*, 2018, <https://www.gatesnotes.com/Bio> (accessed on 21/05/18).
- ³⁶ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 64.
- ³⁷ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 64.
- ³⁸ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 91.
- ³⁹ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 54.
- ⁴⁰ Microsoft News Center, Microsoft CEO Steve Ballmer to retire within 12 months, August 2013, *Microsoft*, 2018, <https://news.microsoft.com/2013/08/23/microsoft-ceo-steve-ballmer-to-retire-within-12-months/> (accessed on 19/05/2018).
- ⁴¹ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 65.
- ⁴² The blog of Bill Gates, About Bill, *The Gates Notes LLC*, 2018, <https://www.gatesnotes.com/Bio> (accessed on 21/05/18).
- ⁴³ Hollar, Sherman, Satya Nadella, *Encyclopædia Britannica*, 2018, <https://www.britannica.com/biography/Satya-Nadella> (accessed on 19/05/2018).
- ⁴⁴ Hollar, Sherman, Satya Nadella, *Encyclopædia Britannica*, 2018, <https://www.britannica.com/biography/Satya-Nadella> (accessed on 19/05/2018).
- ⁴⁵ Microsoft Homepage, Leadership, *Microsoft*, 2018, <https://news.microsoft.com/exec/satya-nadella/> (accessed on 14/04/18).
- ⁴⁶ Microsoft Homepage, Leadership, *Microsoft*, 2018, <https://news.microsoft.com/exec/satya-nadella/> (accessed on 14/04/18).
- ⁴⁷ Microsoft Homepage, Leadership, *Microsoft*, 2018, <https://news.microsoft.com/exec/satya-nadella/> (accessed on 14/04/18).
- ⁴⁸ McCracken, Harry, 10 things to know about Satya Nadella, Microsoft's New CEO, February 2014, *Time Inc.*, 2017, <http://time.com/4014/satya-nadella/> (accessed on 01/05/18).
- ⁴⁹ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 65.
- ⁵⁰ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 78.
- ⁵¹ Murphy, Megan, Satya Nadella on AI, sexual harassment, and Microsoft's soul, December 2017, *Bloomberg L.P.*, 2018, <https://www.bloomberg.com/news/features/2017-12-21/satya-nadella-on-ai-sexual-harassment-and-microsoft-s-soul> (accessed on 03/05/18).
- ⁵² The blog of Bill Gates, About Bill, *The Gates Notes LLC*, 2018, <https://www.gatesnotes.com/Bio> (accessed on 21/05/18).
- ⁵³ Kim, Eugene, Microsoft has a strange new mission statement, June 2015, *Insider Inc.*, 2018, <http://www.businessinsider.com/microsoft-ceo-satya-nadella-new-company-mission-internal-email-2015-6> (accessed on 10/04/18).

-
- ⁵⁴ Kim, Eugene, Microsoft has a strange new mission statement, June 2015, *Insider Inc.*, 2018, <http://www.businessinsider.com/microsoft-ceo-satya-nadella-new-company-mission-internal-email-2015-6> (accessed on 10/04/18).
- ⁵⁵ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 75.
- ⁵⁶ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 11.
- ⁵⁷ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 238.
- ⁵⁸ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 66.
- ⁵⁹ Vaughan-Nichols, Steven J., Windows 8.x usage declines, July 2014, *CBS Interactive*, 2018, <https://www.zdnet.com/article/windows-8-x-usage-declines/> (accessed on 13/05/2018).
- ⁶⁰ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 139.
- ⁶¹ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 14.
- ⁶² Microsoft News Center, Satya Nadella email to employees on aligning engineering to strategy, June 2015, *Microsoft*, 2018, <https://news.microsoft.com/2015/06/17/satya-nadella-email-to-employees-on-aligning-engineering-to-strategy/> (accessed on 07/05/18).
- ⁶³ Microsoft Homepage, Annual Report 2017, *Microsoft*, 2018, <https://www.microsoft.com/investor/reports/ar17/index.html> (accessed on 15/05/18).
- ⁶⁴ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 240.
- ⁶⁵ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 76.
- ⁶⁶ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 76.
- ⁶⁷ Cohan, Peter, Why Microsoft's new culture makes its stock a buy, April 2018, *Forbes Media LLC.*, 2018, <https://www.forbes.com/sites/petercohan/2018/04/09/why-microsofts-new-culture-makes-its-stock-a-buy/2/#1a1e783b3f59> (accessed on 27/04/18).
- ⁶⁸ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 103.
- ⁶⁹ Microsoft Homepage, Annual Report 2017, *Microsoft*, 2018, <https://www.microsoft.com/investor/reports/ar17/index.html> (accessed on 15/05/18).
- ⁷⁰ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 109.
- ⁷¹ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 66.
- ⁷² Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 100.
- ⁷³ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 94.
- ⁷⁴ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 94.
- ⁷⁵ Murphy, Megan, Satya Nadella on AI, sexual harassment, and Microsoft's soul, December 2017, *Bloomberg L.P.*, 2018, <https://www.bloomberg.com/news/features/2017-12-21/satya-nadella-on-ai-sexual-harassment-and-microsoft-s-soul> (accessed on 19/05/18).
- ⁷⁶ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 117.
- ⁷⁷ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 241.
- ⁷⁸ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 128.
- ⁷⁹ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 124.
- ⁸⁰ Microsoft Homepage, Facts about Microsoft, *Microsoft*, 2018, <https://news.microsoft.com/facts-about-microsoft/> (accessed on 16/05/18).
- ⁸¹ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 106.

-
- ⁸² Gillis, Rick, Microsoft's acquisition of LinkedIn changed the job search industry in ways we don't even know yet, March 2017, *Forbes Media LLC.*, 2018, <https://www.forbes.com/sites/forbescoachescouncil/2017/03/29/microsofts-acquisition-of-linkedin-changed-the-job-search-industry-in-ways-we-dont-even-know-yet/#1fcc5cdd4130> (accessed on 19/05/2018).
- ⁸³ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 137.
- ⁸⁴ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 232.
- ⁸⁵ Microsoft Homepage, Facts about Microsoft, *Microsoft*, 2018, <https://news.microsoft.com/facts-about-microsoft/> (accessed on 16/05/18).
- ⁸⁶ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 132.
- ⁸⁷ Microsoft Homepage, Facts about Microsoft, *Microsoft*, 2018, <https://news.microsoft.com/facts-about-microsoft/> (accessed on 16/05/18).
- ⁸⁸ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 125.
- ⁸⁹ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 126.
- ⁹⁰ Microsoft Homepage, Facts about Microsoft, *Microsoft*, 2018, <https://news.microsoft.com/facts-about-microsoft/> (accessed on 16/05/18).
- ⁹¹ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 105.
- ⁹² Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 105.
- ⁹³ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 73.
- ⁹⁴ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 60.
- ⁹⁵ Microsoft Homepage, Microsoft HoloLens, *Microsoft*, 2018, <https://www.microsoft.com/de-de/hololens> (accessed on 13/05/18).
- ⁹⁶ Greene, Jay, Microsoft to streamline smartphone hardware business, May 2016, *Dow Jones & Company*, 2018, <https://www.wsj.com/articles/microsoft-to-streamline-smartphone-hardware-business-1464166803> (accessed on 19/05/18).
- ⁹⁷ Wingfield, Nick, Microsoft cutting 1,850 jobs in smartphone unit, May 2016, *The New York Times Company*, 2018, <https://www.nytimes.com/2016/05/26/technology/microsoft-smartphone-layoffs.html> (accessed on 22/05/2018).
- ⁹⁸ Microsoft News Center, Microsoft expands artificial intelligence efforts with creation of new Microsoft AI and research group, September 2016, *Microsoft*, 2018, <https://news.microsoft.com/2016/09/29/microsoft-expands-artificial-intelligence-ai-efforts-with-creation-of-new-microsoft-ai-and-research-group/> (accessed on 10/05/18).
- ⁹⁹ Microsoft Homepage, Annual Report 2017, *Microsoft*, 2018, <https://www.microsoft.com/investor/reports/ar17/index.html> (accessed on 15/05/18).
- ¹⁰⁰ Microsoft Homepage, Facts about Microsoft, *Microsoft*, 2018, <https://news.microsoft.com/facts-about-microsoft/#BusinessOrganization> (accessed on 16/05/18).
- ¹⁰¹ Microsoft Homepage, Annual Report 2017, *Microsoft*, 2018, <https://www.microsoft.com/investor/reports/ar17/index.html> (accessed on 15/05/18).
- ¹⁰² Microsoft Homepage, Board of Directors, *Microsoft*, 2018, <https://www.microsoft.com/en-us/Investor/corporate-governance/board-of-directors.aspx> (accessed on 04/05/2018).
- ¹⁰³ Microsoft Homepage, Facts about Microsoft, *Microsoft*, 2018, <https://news.microsoft.com/facts-about-microsoft/> (accessed on 16/05/18).
- ¹⁰⁴ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 75.
- ¹⁰⁵ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 75.
- ¹⁰⁶ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. iX.
- ¹⁰⁷ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 75.
- ¹⁰⁸ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 125.

-
- ¹⁰⁹ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 71.
- ¹¹⁰ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 6.
- ¹¹¹ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 6.
- ¹¹² Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 42.
- ¹¹³ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 81.
- ¹¹⁴ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 40.
- ¹¹⁵ Gascon, Charles S., Growth in tech sector returns to glory of the 1990s, 2017, *St. Louis Fed*, 2018, <https://www.stlouisfed.org/publications/regional-economist/second-quarter-2017/growth-in-tech-sector-returns-to-glory-days-of-the-1990s> (accessed on 12/05/18).
- ¹¹⁶ Microsoft Homepage, Annual Report 2017, *Microsoft*, 2018, <https://www.microsoft.com/investor/reports/ar17/index.html> (accessed on 15/05/18).
- ¹¹⁷ Microsoft Homepage, Annual Report 2017, *Microsoft*, 2018, <https://www.microsoft.com/investor/reports/ar17/index.html> (accessed on 15/05/18).
- ¹¹⁸ Microsoft Homepage, Facts about Microsoft, *Microsoft*, 2018, <https://news.microsoft.com/facts-about-microsoft/#BusinessOrganization> (accessed on 16/05/18).
- ¹¹⁹ Neate, Rupert, Apple leads race to become world first \$1tn company, January 2018, *Guardian News and Media Limited*, 2018, <https://www.theguardian.com/business/2018/jan/03/apple-leads-race-to-become-world-first-1tn-dollar-company> (accessed on 12/05/18).
- ¹²⁰ Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 71.
- ¹²¹ Microsoft Homepage, Annual Report 2017, *Microsoft*, 2018, <https://www.microsoft.com/investor/reports/ar17/index.html> (accessed on 15/05/18).
- ¹²² Nadella, Satya, 2017, Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone, *HarperBusiness*, p. 139.