

APPENDIX GA36d

LEVEL 7 ASSESSMENT SPECIFICATION



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Research Report as homework for the class:
Visions for the Future- Theoretical Perspectives on Management
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Title of the underlying research project:
*A case study analysis of the failure of the NOKIA Mobile Phone division
applying the 3-H Model: Heart, Head & Hand*

Introduction

During the class, HKBM7018 Visions for the Future: Theoretical Perspectives on Management, the 3-H model (Heart, Head, Hand) was introduced and explained through several real-life examples. Although my initial plan was to focus this assignment on corporate social responsibility (CSR), I decided instead to delve deeper into understanding the 3-H model. As a result, this homework will be dedicated to a case study analysis of Nokia's mobile phone division. This has been inspired by another prominent example from recent history, Kodak, which was discussed extensively during class (Yu, 2024).

Joshi and Panigrahi (2018) outline the key milestones in Nokia's story as follows. Please refer to the timeline below:

- **October 1998:** Nokia reached the top as the best-selling mobile phone brand globally.
- **1995–1999:** Nokia's operating profit rose from \$1 billion to nearly \$4 billion.
- **2003:** The Nokia 1100, the best-selling mobile phone of all time, was introduced.
- **2007:** Apple launched the iPhone.
- **End of 2007:** Half of all smartphones sold globally were Nokia devices, while Apple only had a 5% market share.
- **2010:** Nokia launched the so-called "iPhone killer" but failed to compete effectively.
- **Post-2010:** Nokia's high-end phones decrease in competitiveness.
- **2011:** Nokia's market value dropped by approximately 90% within six years.
- **2013:** Nokia's decline culminated in its acquisition by Microsoft.

The objective of this case study is to assess the rise and fall of Nokia's mobile phone division over the past decades using the 3-H model. This approach aims to provide new insights and a better understanding of the factors behind the firm's failure. The questions this paper seeks to answer are:

- What were the reasons for the failure?
- How could such a situation have been avoided by the company's management?
- What lessons can be learned from this case for the future and for other companies?

Literature Review

The decline of Nokia has been extensively analyzed by various researchers. There are several case studies in the literature focusing on Nokia's mobile phone division, as it serves as an example of a company that failed to adapt to technological change. In my literature review, I examined the past 10 years, which includes the period when Microsoft acquired Nokia, and since then, the situation has been assessed academically.

For example, Bouwman et al. (2014) examined why Nokia, despite once being the dominating actor in the mobile phone market, ceased to capture the smartphone market. They used a forensic approach to understand the reasons behind Nokia's downfall. The objective of their analysis was to understand why Nokia was not able to anticipate changes in the mobile phone market, even though it was expected to succeed given its strong position in the mobile phone industry and its history of success in the past. The authors used a combination of approaches to gather insights, including reviewing Nokia's history and how it dealt with launching new handsets. They also interviewed Nokia managers and analyzed mobile phone usage data in Finland from 2003 to 2011.

The paper identifies several key factors that contributed to Nokia's failure:

- Issues with Nokia's leadership and business architecture, such as a shift towards more control and bureaucracy.
- Challenges with Nokia's R&D policy, innovation, and venturing approach.
- Problems with Nokia's product launch, marketing, and market segmentation strategies.
- Difficulties in penetrating the US market.
- The change from telecommunication to an internet-based user focus.
- Challenges with Nokia's operating systems and platforms, such as Symbian and MeeGo.

The authors concluded that Nokia's failure was due to a combination of factors, including leadership issues, organizational challenges, lack of focus, and difficulties in adapting to changing market dynamics, especially the rise of smartphones and the importance of ecosystems and platforms. The paper's forensic approach allowed the authors to reconstruct and understand the complex processes that led to Nokia's decline, providing a detailed and nuanced understanding of the factors involved. However, the authors acknowledged that their view is

limited to the fact that they only had access to public information. As shown below, in later years, it will become easier for researchers to gain access to interview partners and contribute to this perspective

One year later, Vuori and Huy (2015) also studied Nokia's rapid downfall with a strong focus on why they were losing the innovation battle against Apple's iPhone between 2005 and 2010. They aimed to understand how the shared emotions of the managers in the high and middle levels during the smartphone innovation process influenced the process and its outcome. The study developed a new perspective on how shared emotions emerge during the innovation process and how they influence the innovation outcomes. It did not start with specific hypotheses but rather used an inductive approach to build a new theoretical model. The researchers conducted 76 in-depth interviews with Nokia's managers from high and middle levels, engineers, and external experts, using specific techniques to collect accurate and convergent information, such as precise questioning and event tracking. Additionally, they reviewed about 1,000 articles and books about Nokia, as well as some confidential internal reports, to corroborate the findings. This provided additional credibility and a new angle on the situation compared to Bouwman et al. (2014), who did not have this internal perspective.

The study found that top and middle managers at Nokia developed different types of shared fears. Top managers had high external fear about losing to competitors and shareholders, while middle managers had high internal fear about threats within the organization, such as superiors and peers. These different fears led to a decoupling of interactions between the two groups. Top managers pressured middle managers for faster performance due to their external fear, while middle managers provided overly optimistic reports to avoid penalties due to their internal fear. This created an assessment gap, where top managers developed “an overly optimistic perception” (Vuori and Huy (2015), p.1) of Nokia's capabilities, leading to temporal myopia, which describes a focus on short-term product innovation at the expense of long-term innovation development.

The findings suggested that the structural distribution of attention in an organization can lead to distinct shared emotions among different groups, which then influence their interactions and decision-making. It showed how emotions, in addition to cognition, can shape the innovation process and outcomes, and it also showed how social-emotional processes can influence top managers' cognition. However, the limitations are that it is a single case study, and the findings may be specific to the mobile phone industry and the context of Nokia. Thus, generalization of the results might be difficult.

In the same year, Rooij (2015) examined the concept of business failure by analyzing not only one but three cases, including Nokia. The other two cases are Baan Company and LG Philips Displays (LPD). He aimed to understand the different causes of business failure and develop a typology based on that.

The paper used a qualitative case study approach, analysing and triangulates multiple sources, including business press reports, financial analysts' views, and relevant secondary literature, to understand the causes and process of failure in each case. Thereby, it identified “three causes of business failure: fallibility (imperfections and circumstances beyond control), error (decisions that do not make sense given the context), and flaw (built-in imperfections in the business model)” (Rooji 2015), p. 203). Based on these causes, it defined three types of failing firms: “Icari” (overamplifying their success formula), “Fools” (making poor decisions), and “Rogues” (flawed business models)” (Rooij (2015), p. 215 Table 3). He argued that failure is a natural part of being in business, like Sisyphus endlessly rolling a boulder up a hill. Success is temporary, and firms often alternate between success and failure. The goal should not be to avoid failure, but to prevent it from becoming permanent. The study “provides a simple typology of business failure, enhancing our understanding of this phenomenon.” (Rooji 2015), p. 203). It challenged the common view of failure as something negative and avoidable and argues that the struggle is the essence of business, not becoming successful. Nokia was a strong-performing market leader with a dominant role; however, it was eventually outperformed by competitors. Throughout the company’s lifecycle, all three types described by Rooji occurred, ultimately leading to its significant downturn.

Further, Borhanuddin & Iqbal (2016) explored the origins of Nokia and its progress in the telecommunications industry, as well as some of the challenges it encountered. The main objective of their study is to explore the origins of Nokia and its progress in telecommunications technology, with a specific focus on the evolution and improvements of its mobile phone interface design. It is based on a historical analysis, including its diversification into various industries and its eventual focus on telecommunications equipment and mobile phones. The study found that Nokia was initially involved in various industries, including paper products, rubber, and electronics, before focusing on telecommunications equipment and mobile phones. Nokia played a significant role in the development of the Global System for Mobile Communications (GSM) and the introduction of features like “messaging service and high-quality voice calls”, which “made it a dominant player in the mobile telecommunications industry in the 1990s” (Borhanuddin & Iqbal, 2016, p.1). The paper examined the design and

features of various Nokia mobile phone models over time, from the early bulky "Mobira Senator" to the more compact and user-friendly models like the "Nokia 3210" and "Nokia 6110". However, the study also highlighted how Nokia's refusal to adapt to the changing market, particularly the rise of touchscreen smartphones, contributed to its decline in the late 2000s and early 2010s. However, the study is primarily a historical analysis and does not include any empirical data collection or analysis.

In addition, Laamanen et al. (2016) analyzed how the success and failure of the Nokia Corporation were framed and explained in various accounts over time. They examined the tendencies in the narratives of the Nokia story and how the changing explanations of Nokia's success and failure were constructed by different stakeholders. The researchers collected and analyzed a comprehensive set of 81 publications about Nokia's history, focusing on the periods of its success in the 1990s and 2000s, and its failure in the late 2000s and early 2010s. They used a discursive approach to identify the key framings and narrative attributions in these accounts. The "analysis revealed a striking black-and-white picture in the" (Laamanen et al. 2016, p.2) success and failure accounts. The success narratives glorified Nokia's managers and their decisions, while the failure narratives blamed the same managers and their choices. The researchers found that the same types of discourse were used to explain both success and failure, but the relative emphasis changed over time. Their findings suggested that the success and failure narratives exhibited significant cognitive and political biases. The researchers proposed the concept of "metanarrative" to capture the institutionalized and widely shared understanding of Nokia's success and failure and their explanations. They argued that these metanarratives can have problematic implications for management learning and education.

Further, Wang et al. (2016) aimed to understand how and why firms succeed or fail in responding to technological innovations, particularly in hypercompetitive industries like mobile telecommunications. They developed and extended a path with multi-layer of dependence framework to analyze the key events and decisions that led to Nokia's success and eventual decline. The framework looked at path creation and path dependence across four interdependent layers: technology, strategy and leadership, organization, and external collaboration. The researchers used a retrospective case study approach, analyzing Nokia's official annual reports and SEC filings over a 10-year period from 2003 to 2012. This allowed them to identify key events and patterns in Nokia's evolution from a historical perspective. The analysis identified four critical junctures in Nokia's history that led to path dependence and eventually lock-in: Nokia's strategic focus on mobile phones in the 1990s, its commitment to the Symbian operating

system, the partnership with Microsoft, and the appointment of Stephen Elop as CEO. The multi-layered framework showed how decisions and events at the technical, strategic, organizational, and collaborative levels mutually reinforced each other over time, making it increasingly difficult for Nokia to adapt to changing market conditions. The firm's engineering-driven culture and assumptions about meeting customer needs with superior technology ultimately blinded it to the importance of software ecosystems and adaptable mobile devices.

In 2017, Khan et al. examined the resistance to change faced by two major organizations, General Motors (GM) and Nokia, as they went through organizational changes. They analyzed the driving forces behind the changes, the change processes, and how the companies handled the resistance from their stakeholders. The main objectives of the study are to identify the driving forces of change for Nokia and GM, to examine the practical implementation of the change process in Nokia and GM, to analyze employees' response, resistance to change, and difficulties faced by Nokia and GM, and to assess how Nokia and GM managed to reduce resistance to change and evaluate their change strategy using change models. The study used a case study approach for Nokia and GM to gain an in-depth understanding of the resistance to change in these organizations. The researchers gathered data through journals, websites, and documents to analyze the change processes and resistance faced by the companies. The results showed that both GM and Nokia faced similar issues - they were overconfident and did not realize the need for drastic changes, they were not responsive to environmental changes, and their top management was not proactive in leading the changes. GM underwent a change process led by the new CEO, which involved cost-cutting, restructuring, and a focus on core brands. Nokia, on the other hand, faced more resistance from its employees and stakeholders when it decided to shift to the Windows phone platform under a non-Finnish CEO.

Shah et al. (2018) used the brand commitment paradigm, which focuses on the relationship between the consumer and the brand, to investigate what drove consumer loyalty towards the Nokia smartphone brand, which has been relaunched in the market by a new company called HMD Global. The study proposed a model to test the effectiveness of HMD Global's approach to establishing the Nokia smartphone brand in the saturated market. The researchers collected data from 213 former Nokia brand users in China, who are working in the private and public sectors. They used established scales to measure brand trust, affective commitment, and brand loyalty, and employed structural equation modeling to test the hypothesized model. The results showed that brand trust based on past experience did not have a significant direct effect on brand loyalty. However, brand trust had a weak but significant positive relationship with

affective commitment. The path from affective commitment to brand loyalty was found to be nonsignificant. The mediation analysis also revealed that affective commitment did not significantly mediate the relationship between brand trust and brand loyalty, which suggested that the emotional aspect (affective commitment) is not sufficient to generate brand loyalty when relaunching a brand in a saturated market. Instead, the researchers suggested that HMD Global should focus on strengthening the cognitive dimension, specifically continuance commitment, as innovation and improved quality are the keys to success in the flooded smartphone market.

Bhalodiya & Sagotia (2018) focused on analyzing the reasons behind the failure of Nokia to cope with product innovation in the cellular market. It provided insights into how Nokia, once a pioneer in the smartphone market, lost its dominance to competitors like Apple and Samsung. The key objectives of the case study were to understand the reasons for Nokia's failure to adapt to the changing market conditions and new product innovations, to identify the strategic mistakes and missed opportunities that contributed to Nokia's downfall, and to propose potential solutions and strategies that could help Nokia make a comeback in the market. The case study relied on secondary data sources, including articles, student reviews, and videos by industry experts. It analyzed the key assumptions, problem statements, and the various reasons behind Nokia's failure, such as slow response to market changes, lack of product innovation, and execution issues. It identified several factors that led to Nokia's downfall: Nokia's slow response to the launch of the iPhone and the shift in consumer demand towards full-touch, app-based smartphones, Nokia's failure to effectively transition from its aging Symbian platform to newer operating systems like Android and Windows Phone, Nokia's lack of product innovation, design, and marketing compared to competitors like Samsung, and Nokia's complacency and satisfaction with its market-leading position, which prevented it from anticipating and adapting to the changing industry trends. The case study provided a comprehensive analysis of Nokia's missteps and the key reasons for its failure to maintain its dominance in the cellular market. It highlighted the importance of adaptability, innovation, and effective execution in the face of disruptive changes and increasing competition.

Alibage and Weber (2018) examined the strategic management of technology at Nokia Corporation. They reviewed and analyzed Nokia's historical transformation, including its core business, leadership strategies, business architecture, R&D policy, innovation strategy, product launches, and smartphone recognition. The research aimed to answer two main questions: What are the strategic gaps at Nokia that led to its collapse, particularly in the smartphone market?

How likely is the new home of Nokia phones, HMD Global, to succeed in the smartphone market? They used a traditional narrative literature review and secondary sources to gather data from multiple sources, including academic research, magazine and journal articles, conferences, the company's official history, and annual reports. They employed logical reasoning and statistical data to analyze the qualitative information. It has been found that Nokia's success did not last beyond 2007 as the company experienced a persistent decline in its financial performance. They identified various strategic gaps, including the lack of precise technology forecasting, the misunderstanding of customer needs in the smartphone market, and the failure to create a competitive ecosystem around its platforms. They concluded that Nokia's problem was not the lack of innovation. Indeed, Nokia was lack of understanding that the smartphone market required not just a mobile phone with basic features, but also a well-integrated platform to operate all the functions together. Nokia's various platforms, such as Symbian, MeeGo, and Windows Phone, lacked the integration into the ecosystem that Apple's iOS and Google's Android had.

Joshi and Panigrahi (2018) discussed the decline of Nokia and the reasons behind its downfall. They analyzed the mistakes made by Nokia that led to its eventual acquisition by Microsoft in 2013. The paper is a case study that examined the events and decisions that led to Nokia's downfall, based on a review of the available literature and industry reports. It outlined ten key reasons for Nokia's decline: failure of the Symbian operating system, poorly timed partnership with Microsoft's Windows, lagging behind in the smartphone market, losing market share at both the high-end and low-end segments, lack of a strong brand strategy, overreliance on hardware and failure to adapt to the changing software-driven market, poorly timed product positioning, lack of applications and functionality compared to competitors, overconfidence and inability to adapt to market changes, and failure to join the ecosystems of Apple and Android. The paper suggested that Nokia's decline was a result of both internal and external factors. The company's culture of status and fear, as well as its lack of innovation and adaptability, contributed to its downfall. The rise of competitors like Apple and Android, and the changing market dynamics, also played a significant role in Nokia's demise.

Sulphey (2019) analyzed the failure of Nokia from the perspective of organizational ambidexterity (OA). OA refers to a company's ability to simultaneously explore new opportunities and exploit existing capabilities. He investigated whether the adoption of OA could have changed the history of Nokia. The paper explored how Nokia failed to balance exploration and exploitation, which ultimately led to its downfall. It used a qualitative case

study approach to understand Nokia's journey and the reasons for its decline. It also examined various factors such as leadership, R&D, ecosystem, strategy, and consumer demand that contributed to Nokia's failure. The analysis revealed that Nokia failed to maintain a balance between exploration and exploitation. While it excelled in exploiting its existing strengths and capabilities, it severely lacked in exploring new opportunities and adapting to changing market conditions. Nokia's overconfidence in its existing Symbian operating system and its inability to understand evolving consumer preferences led to its downfall. The company's lack of structural and contextual ambidexterity prevented it from simultaneously pursuing incremental and radical innovations. This study is the first attempt to analyze Nokia's failure through the lens of organizational ambidexterity. It provided a new perspective on understanding the importance of balancing exploration and exploitation for a company's long-term success.

Lamberg et al. (2019) examined the reasons why the Nokia Corporation failed to develop a successful strategic in response to the threats of competitors, such as Apple and Google, in the smartphone business. They investigated key choices in technology and organizational design that led to the abandonment of Nokia's mobile phone business. They aimed to find a balanced and causally believable explanation for Nokia's strategic failure, rather than simple or overly complex narratives. They focused on Nokia's technology choices and organizational design decisions as the key causal factors. The researchers used an oral history approach, conducting interviews with 28 former Nokia executives and experts to understand the "life-stories" and technological challenges within the company. They triangulated the interview data with public sources and documents to avoid biases. They identified two key causal conditions that jointly contributed to Nokia's inability to produce a competitive smartphone: Nokia's continued investment in the outdated Symbian software platform even after the emergence of iOS and Android, and Nokia's decisions to abandon the Maemo platform and enter a risky alliance with Intel to develop MeeGo, while simultaneously investing in other platforms like Meltemi. The researchers argued that Nokia's "agile" management philosophy, which emphasized constant organizational restructuring and internal competition, created a dysfunctional environment that hindered effective technology management. The lack of technological capabilities at the top management level and the complex, unclear organizational structure led to slow and inefficient decision-making, preventing Nokia from catching up with its competitors.

Salman Abdou & Hussein (2020) examined the reasons behind the market failure of Nokia. They investigated factors such as complacency, fear of change, lack of innovation, and slow decision-making that led to Nokia's downfall. The main objective of the study was to analyze

the key reasons for Nokia's market failure and provide insights that can help other companies in the mobile industry avoid similar pitfalls. The study did not explicitly state any hypotheses. The research followed an explanatory approach, investigating the characteristics of the mobile industry, barriers to entry, product specifications, and management decisions that contributed to Nokia's decline. The study identified four key reasons for Nokia's market failure: complacency and fear of change, lack of innovation, moving too slowly, and the invention of the iPhone. The study provided a detailed analysis of how each of these factors contributed to Nokia's downfall. It highlighted Nokia's overconfidence in its brand and hardware expertise, as well as its failure to adapt to the evolving market needs.

Vijay & Jayanthila Devi (2021) analyzed the reasons behind the downfall of Nokia and how the company made a comeback using nostalgic marketing strategies. The objectives of the study were to understand history and legacy of Nokia, identify the issues and weaknesses that led to its decline, analyze the strategic decisions that caused its loss of market share, and study how nostalgic marketing helped Nokia regain its fame. The study used secondary data sources such as journals, websites, and blogs to conduct the analysis. A SWOC (Strengths, Weaknesses, Opportunities, and Challenges) analysis was used to evaluate Nokia's performance. It found that Nokia's failure was due to its resistance to the smartphone evolution and lack of innovation in its operating system. In 2017, Nokia used a nostalgic marketing approach by re-creating its popular Nokia 3310 handset with modern features, which helped the company regain some of its lost market share. Nostalgic marketing, which taps into consumers' emotional attachment to the brand, helped Nokia reconnect with its loyal customer base and regain some of its lost market share. However, it could not change the overall perception in the market and a younger consumer audience cannot be attracted with nostalgic marketing.

Wang (2022) discussed the reasons behind the failure of Nokia's mobile phone business using the case analysis method to study Nokia's decline. It examined the various factors, including Nokia's overconfidence, failure to adapt to market changes, and reluctance to adopt better operating systems, that contributed to the company's business failure. The paper identified three main reasons for Nokia's failure: neglect of competition and the market, swinging attitude and no use of Android, and brand aging and lack of fashion sense. The paper suggested that Nokia's overconfidence and reluctance to adapt to the changing market led to its downfall. The company failed to recognize the evolving needs of consumers and the competitive landscape, which ultimately resulted in its loss of market share.

Sadia (2023) presented a case study analysis of the rise and fall of Nokia. She also examined the key factors that contributed to Nokia's success and then eventual decline in the global mobile industry. The primary objectives were to trace the historical evolution of Nokia from its origins as a paper mill to its dominance in the mobile phone market, to identify and analyze the strategic decisions, organizational dynamics, and market factors that led to Nokia's downfall in the era of smartphones, and to explore the various strategies and initiatives undertaken by Nokia to revitalize its business and regain competitiveness. The study utilized a qualitative case study approach, relying on a comprehensive review of academic literature, industry reports, and media articles related to Nokia's journey. The analysis examined various aspects, including Nokia's strategic leadership, organizational structure, technological choices, competitive dynamics, and adaptation to market changes. The study revealed several key factors that contributed to Nokia's decline: reluctance to embrace the transition from feature phones to smartphones, especially those with touchscreen interfaces, overreliance on the outdated Symbian operating system and failure to adopt the Android platform in a timely manner, inability to establish a robust application ecosystem to compete with the thriving App Store and Google Play, organizational challenges, including internal rivalries, leadership changes, and difficulties in coordinating strategy and innovation, and delays in product development and a failure to anticipate and respond to the evolving market dynamics. The case of Nokia illustrated the importance of adaptability, strategic foresight, and the ability to embrace disruptive technological changes in the dynamic mobile industry. Nokia's initial success was rooted in its strong brand, engineering expertise, and global reach. However, its unwillingness to adapt to the smartphone revolution and the rise of platforms led to its downfall.

Kornelakis and Petrakaki (2024) also examined the puzzle of how Nokia lost the smartphone wars to Apple and Samsung. They provided a comparative, historical, and institutional account focusing on Nokia, Apple, and Samsung. The paper aimed to provide a two-pronged explanation for Nokia's decline. First, it examined the role of financialization and the trade-off between investing in R&D versus boosting shareholder value. Second, it looked at the reconfiguration of industry platforms and the power relationships between key actors. The study uses a comparative method, examining the cases of Nokia, Apple, and Samsung. It drew on a wide range of primary and secondary sources, including academic works, media articles, financial reports, and industry data. It showed that being a technological pioneer does not necessarily ensure success. While Nokia was innovative, it was ultimately disrupted by Apple's "architectural innovation" and the reconfiguration of industry platforms. Samsung, on the other hand, was able to adapt by aligning itself with the new Android platform. The findings

suggested that the wider institutional context, including the degree of exposure to financialization pressures, played a crucial role in the outcomes. Nokia was heavily exposed to US financial markets and shareholder value pressures, while Samsung was shielded by its home country context.

The above papers have presented the key reasons identified for Nokia's downfall. The key reasons identified for Nokia's downfall include its failure to adapt to technological changes, overreliance on hardware, and poor strategic decisions. Joshi and Panigrahi (2018) highlighted ten reasons for Nokia's decline, such as the failure of the Symbian operating system, poorly timed partnerships, and lack of a strong brand strategy. Sulphey (2019) examined Nokia's failure through the lens of organizational ambidexterity, noting that Nokia excelled in exploiting existing capabilities but failed to explore new opportunities. Lamberg et al. (2019) focused on Nokia's technology choices and organizational design decisions, identifying continued investment in outdated platforms and a dysfunctional management philosophy as key factors. Salman Abdou & Hussein (2020) emphasized complacency, fear of change, and lack of innovation as primary reasons for Nokia's market failure. Vijay & Jayanthila Devi (2021) analyzed Nokia's comeback using nostalgic marketing strategies, noting that resistance to adopting new technologies and a focus on hardware over software led to its initial downfall. Wang (2022) discussed Nokia's overconfidence and reluctance to adapt to market changes, highlighting neglect of competition and brand aging as significant issues. Sadia (2023) presented a comprehensive case study, identifying reluctance to transition to smartphones, overreliance on Symbian, and organizational challenges as key factors. Finally, Kornelakis and Petrakaki (2024) provided a comparative analysis, highlighting the role of financialization and industry platform reconfiguration in Nokia's decline.

To conclude, the studies collectively emphasize the importance of adaptability, strategic foresight, and the ability to embrace disruptive technological changes for long-term success in the dynamic mobile industry.

Research Method

A case study analysis will be conducted considering the following data. I have obtained the annual reports of NOKIA from 2003 until 2014 (12 years), which covers the overall period of the downturn in NOKIA's mobile division until its acquisition by Microsoft. In addition, the Form 20 F and the ESG - Sustainability reports have been obtained for the same period. Further,

the quarterly earnings releases and related PowerPoint presentations and excel tables for the same period have been obtained. All this information is publicly available on Nokia's website:

<https://www.nokia.com/about-us/investors/results-reports/>

The annual report

An annual report is a critical document issued by organizations, particularly public companies, to provide a detailed overview of their performance.

The report typically begins with a Letter to Shareholders, written by the CEO or Chairperson, which highlights key achievements, challenges faced during the year, and the company's strategic vision. This section sets the tone for the report and provides an executive summary of the organization's priorities and outlook.

A comprehensive Business Overview follows, offering context about the company's operations, products, services, and market position. This section may also include details about the company's mission, core values, and geographic presence, giving stakeholders a clear understanding of its scope and focus.

One of the most significant components is the Management's Discussion and Analysis (MD&A), which explains the financial performance in detail. It discusses revenue trends, profitability, operational highlights, and external factors like economic or industry-specific developments that impacted results. The MD&A often includes forward-looking statements, outlining risks and opportunities for the future.

The report also includes Financial Statements, which provide a snapshot of the company's financial health. Key documents like the balance sheet, income statement, and cash flow statement are presented, offering detailed insights into the company's assets, liabilities, revenues, and expenses. Accompanying these statements are the Notes to Financial Statements, which explain accounting policies, significant transactions, and potential risks or contingencies.

To ensure transparency, the Corporate Governance Report outlines the company's governance structure, including the composition of the board, committee roles, and compliance with ethical standards. Additionally, the Auditor's Report provides an independent evaluation of the financial statements, confirming their accuracy and adherence to accounting standards.

Many modern annual reports include sections on Sustainability and Corporate Social Responsibility (CSR), reflecting the growing importance of environmental, social, and governance (ESG) considerations. This section highlights the company's sustainability

initiatives, community engagement programs, and progress on diversity, equity, and inclusion goals.

The Risk Factors section identifies potential risks to the business, such as economic challenges, industry-specific threats, or operational vulnerabilities. For investors, this information is crucial for assessing the company's resilience and adaptability.

Finally, the report often features details on Stock Performance and Shareholder Information, including trends in stock price, dividend history, and information about annual general meetings. It may also highlight major acquisitions, research and development efforts, and market analysis, showcasing the company's efforts to drive innovation and growth.

In conclusion, an annual report is an essential tool that provides a comprehensive view of a company's performance and strategic direction. It enables stakeholders to assess financial stability, understand business operations, and evaluate future prospects, fostering trust and informed decision-making (Rhinehart, 2024).

The Form 20-F

The Form 20-F is a filing required by the U.S. Securities and Exchange Commission (SEC) for foreign companies whose securities are traded in the United States. This form serves as an annual report or registration statement and provides U.S. investors with information about the foreign company's financial and operational health. IT typically includes:

- Financial Statements
- Business Overview: Detailed descriptions of the company's operations, products, markets, and risks.
- Management Discussion and Analysis (MD&A)
- Governance: Information on the board of directors and executive compensation.
- Legal Proceedings: Disclosure of ongoing or potential legal issues that could affect the company.

Therefore, the Form 20-F can be a good complementary read and might provide some more details which are not required in the local annual report. The Form 20-F must be filed within four months after the end of the issuer's fiscal year (Kenton and James, 2020).

Quarterly earnings releases

Quarterly earnings releases are financial disclosures issued by SEC-regulated companies every three months to provide a snapshot of their financial performance. These releases typically include key financial statements, such as the income statement, balance sheet, and cash flow statement, which highlight a company's revenues, expenses, profits, assets, liabilities, and cash flow. In addition to these statements, companies often provide non-GAAP metrics like EBITDA to offer further insights into their operations.

Alongside the financial data, management commentary is included to explain key results, challenges, and achievements during the quarter. Companies may also offer forward-looking guidance on expected performance, helping analysts and investors set future expectations. These releases are often accompanied by an earnings call where company executives answer questions from analysts (Tuovila et. al., 2024).

The Framework

This paper aims to analyse the strategic management approach of NOKIA during its downfall by leveraging the 3-H (Head, Heart & Hand) model. The 3-H Framework is a holistic approach to understanding, developing, or evaluating an individual's or group's capacity and engagement. It connects three core dimensions—Heart, Head, and Hand—to align emotions, intellect, and actions (Yu, 2024). Here's how each component is defined:

1. Heart (Emotions and Values)

The focus lies on the feeling and value. The key elements are passion, empathy, purpose, and motivation. The question is targeted on the "why" behind any actions, driving deeper emotional engagement and fostering connection to a cause or mission. For example, in leadership, focusing on the "Heart" involves inspiring teams by connecting their work to shared values and a greater purpose.

2. Head (Knowledge and Thought)

The focus of this dimension represents what we think and understand. The key elements are knowledge, critical thinking, strategy, and analysis. The question is targeted on the "what" and "how," providing the intellectual framework to make informed decisions and solve problems effectively. For example, a manager engaging the "Head" emphasizes learning objectives and equips employees with the skills to think critically and adapt in changing situations and challenging environments.

3. Hand (Actions and Skills)

The perspective is on what they do and create. The key elements are skills, behaviours, execution, and tangible outcomes. The "doing" aspect is in the focus, translating thoughts and feelings into practical actions and results. For example, in mobile phone industry, the "Hand" focuses the production of high-quality, durable smartphones, precise manufacturing of devices and the ability to deliver high-tech devices at affordable prices or with exorbitant profit margins.

The interplay of Heart, Head, and Hand is key. For optimal impact, these three elements should work in harmony: Heart without Head would be passionate but lacking direction or practical application. Head without Heart would be logical but disconnected from a bigger vision and potentially lead to disengagement. Hand without Heart or Head would be action without clear purpose or strategic alignment.

The Framework applied to NOKIA

The 3-H Framework (Heart, Head, and Hand) can be used to analyse Nokia's downfall and eventual acquisition by Microsoft. Nokia, which once a dominant force in the mobile phone industry, failed to adapt effectively to rapidly changing technological and market demands. Here's how the 3-H framework can shed light on this failure.

Heart (Emotions and Values) for the example NOKIA

Dimension one, Heart assesses the transformational leadership aspects of NOKIA's senior management. Did they identify the needed change, and have they created a vision to guide the change through engagement with all levels of management to execute the change and to meet the challenges emerging from the very fast developing technological environment? In reality, the senior management could not obtain the buy-in from the management levels below. Although the yearly annual statement provides explanations about the market situation, the interpretation and conclusion of the own situation within the market context is underestimated.

A key observation by reviewing all the literature including the annual report was the failure of top management to connect with changing consumer values. Externally, Nokia failed to foresee the shift in consumer preferences towards smartphones with advanced features and sleek, intuitive designs. As competitors like Apple and Samsung built strong emotional connections with consumers through innovation and branding, Nokia's reliance on its legacy brand appeal became less effective. Internally, Nokia's culture became risk-averse and hierarchical. The focus

shifted from pioneering products to protecting its existing market share, which blocked creativity and reduced responsiveness to emerging trends. Consequently, NOKIA's brand loyalty diminished as consumers started associating innovation and emotional satisfaction with competitors like Apple's iPhone and Android-based smartphones.

Head (Knowledge and Thought) for the example NOKIA

Nokia underestimated the market trends. It crucially underestimated the significance of the smartphone revolution and the demand for app ecosystems. While Apple launched the App Store and Android created an open, developer-friendly ecosystem, Nokia stuck to its outdated Symbian OS for too long and made a late, unsuccessful transition to the Windows Phone OS. Nokia delayed its entry into the touch-screen smartphone market and chose to partner with Microsoft for the Windows Phone OS, which had limited app support and failed to attract developers or consumers. Further, it overlooked Android's potential and dismissed the opportunity to adopt it, which could have kept Nokia competitive against Samsung and other Android manufacturers. Overall, Nokia underestimated the power of software and user experience as differentiators, focusing excessively on hardware. As a result, these miscalculations led to Nokia's loss of relevance in the rapidly evolving smartphone market.

Hand (Actions and Skills) for the example NOKIA

Nokia's execution of strategies was inadequate. Nokia's transition to the Windows Phone OS was poorly timed and executed. By the time Nokia partnered with Microsoft, the smartphone market was already dominated by iOS and Android. Developers and users had little incentive to adopt a new ecosystem. Moreover, there were several inefficiencies in the production. Nokia struggled to produce devices that could compete in price, features, and design with the likes of Samsung's Galaxy series or Apple's iPhone. They missed the consumer trends as Nokia failed to act quickly on trends such as touchscreens, app ecosystems, and camera innovation. While competitors iterated rapidly, Nokia lagged behind. As a result, Nokia's inability to act decisively and execute competitive strategies led to declining sales and market share.

Eventually, Microsoft acquired Nokia in 2014. The main reasons were that Microsoft wanted to expand its own ecosystem. They aimed to bolster its Windows Phone ecosystem and leverage Nokia's hardware expertise. Moreover, they wanted to improve their market presence. Despite the decline, Nokia still had significant global distribution networks and brand recognition. Since the Microsoft-Nokia partnership started in 2011, desired results had

not been yielded. Hence, Microsoft opted to take direct control. Ultimately, the acquisition did not reverse the decline, as Microsoft's Windows Phone platform remained uncompetitive against iOS and Android.

Discussion on Findings

Nokia's downfall illustrates the failure to balance Heart, Head, and Hand effectively. They lost emotional connection with consumers and failed to cultivate an innovation-driven culture (Heart). They made strategic errors and mistakes, such as underestimating software's importance and choosing the wrong OS partnership (Head). The execution in adapting to new trends and delivering competitive products was rather poor. The vision, strategy, and execution are not aligned properly with changing market dynamics and Nokia became obsolete in the smartphone era, leading to its acquisition by Microsoft.

A case study is a powerful tool for gaining deep, contextualized insights, especially in exploratory research or when investigating phenomena that are not well understood. The case study approach, while valuable for in-depth exploration and understanding of specific phenomena, has several limitations, these include the limited generalizability. As in this case, the analysis focuses on the single case of NOKIA, making it difficult to generalize findings to broader populations or contexts. This causes a certain level of subjectivity and bias, the researcher's perspective can influence the data collection, analysis, and interpretation, leading to potential biases.

Further, conducting a comprehensive case study requires significant time and resources to collect, analyse, and report detailed data. However, for this research project as homework for the DBA course, the time and resources were limited to a six-week project.

Moreover, a very complex real-world phenomenon with many variables is analysed in this case study, which makes it challenging to identify causal relationships from a wholistic perspective, because several influential factors might not be considered to the lack of resources.

In addition, there is a potential for overemphasising the context in the analysis. While understanding the context is a strength of case studies, it can also be a limitation if the findings are overly specific to that context and lack transferability. In the case of NOKIA, it will be difficult to further transfer the learnings on a more detailed nature to other cases. It comes hand in hand with another weakness of the approach. To make findings accessible or relatable to other cases, there is a risk of oversimplifying complex issues, which may obscure important nuances. In this particular case, the generalisable findings are a good reference point. A

simplification to level of “common sense” is necessary to make them transferable to another cases, in order to removes the substance of the case specific learnings. The unique contexts of NOKIA mobile situation, specific conditions, and technological break throughs in the mobile phone industry make a convincing replication by other researchers for other cases difficult.

The qualitative nature of this case study has led to large amounts of data, which can be overwhelming to analyse and synthesize effectively, and the richness of a case study depends on the availability and reliability of sources. Due to the limitation of time, no interviews or surveys could be performed.

Conclusion

The 3-H framework could have been an invaluable tool for the senior management of Nokia Mobile in analysing their situation and identifying potential strategies to navigate the challenges they faced. While it is often easier to conduct retrospective analyses with the benefit of hindsight, applying such a framework during the period of decline might have provided a clearer understanding of the circumstances contributing to their downturn.

The 3-H framework's key strategic perspectives—typically encompassing aspects like hindsight, insight, and foresight—could have supported a more comprehensive self-assessment. This would have allowed Nokia to better evaluate the external market dynamics, such as shifts in consumer preferences and intensifying competition, alongside internal factors like strategic missteps or organizational inertia. By leveraging these insights, Nokia might have been able to devise and implement a turnaround strategy as early as the mid-2000s, potentially altering the trajectory that ultimately led to their decline.

Despite these possibilities, Nokia’s later acquisition by Microsoft marked another turning point, which, unfortunately, also failed to achieve the desired success. The Windows Phone platform, which is the centre of this acquisition, struggled to compete with dominant operating systems like Android and iOS. Now, a decade after the takeover, Windows Phones are largely irrelevant in the market, underscoring the challenges Nokia faced in adapting to rapidly evolving industry trends.

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