

# **The Innovation Journey of Nokia and Lessons for Future Engineers and Entrepreneurs**

## **Introduction**

Nokia Corporation is a multinational company founded in 1865. It expanded its business in telecommunication in 1980s. From 1990s, Nokia shifted its core business into telecommunication. Nokia was incredibly successful. Statistically, Nokia was the best mobile phone seller from 1996 to 2010. However, Nokia mobile phones do not even exist now. In this summary, we analyze the reasons that contributed to Nokia's rapid death and conclude the lessons learned from this analysis for future engineers and entrepreneurs. Finally, we predict the future of telecommunication devices based on the study of Nokia.

## **The prime and decline of Nokia**

In 1980s, Nokia introduced its first car phone, the Mobira Senator. Due to the success, Nokia decided to focus entirely on mobile phones and network infrastructure, setting a course to gradually exit its rubber, cable and consumer-electronics businesses in 1990s. Since 1996, Nokia mobile phones had occupied the first position of global mobile phone market shares for 15 years. In 2000, Nokia's market value was roughly 210 billion USD and it had over 40% market share in US. Globally, Nokia had a market share of 30.6%, followed by Motorola (13.3%), Ericsson (9.7%) and Siemens (8.6%). During the next few years Nokia presented tens of new phone models and grew its global market share to the peak (38.1%) in 2007. After the iPhone's appearance, the clock started ticking and Nokia has effectively begun its decline. Nokia released MeeGo system with Intel in 2010 and Lumia based on Windows Phone 7 system in 2011. However, they both failed at last. Eventually, Nokia cell phone no longer existed and was bought by Microsoft in 2013.

## **Failure Analysis**

The first reason is market misjudgment. Nokia's online store Ovi was an ambitious attempt. The biggest failure of Ovi was the ignorance of the importance of third party applications. Meanwhile, Nokia did not assign sufficient marketing resources to Ovi Store. The second reason is "the innovator's dilemma", which was presented by Clayton Christensen. "The innovator's dilemma" is a problem on the firm's core value that success is the enemy of success. Therefore, how does this core value impact the firm? First, we need to consider the internal assignments of resources. Second, the senior managers may be hesitating and puzzled. The third reason is improper senior management. In 2010, Stephen Elop became the first non-Finnish CEO of Nokia. Elop and his team were not successfully aware of the cultural differences between Scandinavian and North American cultures, especially Finnish's feminine and strong uncertainty avoidance attributes. This could be a severe problem for Nokia management and even caused protests. The fourth aspect is that Nokia failed to see through customer perspective. Today, customers attach importance to individuation. Nokia responded to this change by continuously launching phones and services. Over extended products reduced customers' enthusiasm, because they thought these models were almost the same and there was not any breakthrough.

## **Lessons Learned and Recommendations**

Based on our findings, we would like to share some lessons learned and give recommendations.

### *i) Before innovations, ask the right questions*

Questioning enables us to organize our thinking around what we do not know and we really need right questions to know what to do with all the information and find our way to the

next answer. Understanding what you do not know and be honest about it could lead to right questions. If you are asking the right questions, you would be prepared to come up with the right answers.

*i) Adopt strategic thinking*

Strategic thinking involves the generation and application of unique business insights and opportunities intended to create competitive advantage for an organization. You should assess the new idea using internal and external data, qualitative synthesis of opinions and perceptions; look at the big picture and move outside your comfort zone to embrace alternatives and the possibilities of exceeding customer and organizational requirements and expectations; identify and establish values and principles to ensure the commercialization of the new idea

*ii) Understand business ecosystems*

Business ecosystems are built on the foundation of interacting organizations and individuals, suppliers, lead producers, competitors, and other stakeholders. Over time, they co-evolve their capabilities and roles to gain mutual benefits. Therefore, the organization should create an environment that encourages the active participation of large numbers of other actors.

**Conclusions and Action**

For a corporation, in order to sustain its success, it should be able to manage innovation. First, it should ask the right questions to stay in the right direction and prevent wasting resources. Second, importance should be attached to the strategic thinking. This allows the company to be visionary and balance short term and long term benefits. Last, it need to deeply understand business ecosystems.

For future engineers and entrepreneurs, it is meaningless to keep mourning Nokia and praising for Apple. It is time to look ahead and move forward. We think mobile phones will become platforms that connect every aspect of our lives. Smart Home technology is a valid example. Apart from that, a combination of smartphone and wearable devices would increase user convenience and experience.