The Nokia Revolution
The Story of an Extraordinary Company That Transformed an Industry
by Dan Steinbock

The Nokia Corporation is the world's leading cellular phone maker and the pioneer of the mobile Internet. From mid-1998 to 2000, the company's market capitalization more than tripled, from $73 billion to $250 billion. And as the new century dawns, Nokia and its mobile Internet technology are very much poised to be the next big thing. Yet, despite the fact that virtually every consumer electronics store in America has a kiosk of Nokia cellular phones on display, very little is actually known about this extraordinary company. In fact, many people mistakenly assume Nokia is a Japanese firm, perhaps because its name sounds vaguely Eastern, and its field, mobile communications, is a stereotypically Japanese endeavor.

Despite its lack of international recognition, the 140-year old Finnish company, whose name means "saw mill," continues to produce nearly a quarter of the 165 million cellular phones that are sold around the world each year. From its humble beginnings in the forestry industry, Nokia has steadily transformed itself into the world's leading supplier of telecommunications systems and equipment. How did they do it?

The Nokia Revolution, by Columbia Business School professor Dan Steinbock, is the first strategic study of this extraordinary, but often misunderstood company. A number of magazine articles and Web features have been published on Nokia's products, and its fearless leader, Jorma Ollila, but none have ever looked beyond what is publicly known about the company, to explore its inner workings and amazing corporate history. In this regard, Steinbock goes where none have gone before by carefully chronicling the strategic transformations that have occurred throughout Nokia's colorful past. No stone is left unturned in telling the fascinating story of Nokia's competitive advantage, and the strategy and vision required to achieve it.

The Nokia Revolution is much more than a book about Nokia. It offers keen insights into how to survive in a fast-paced, volatile environment. It provides lessons in high-stakes competition that are valuable to both established industry leaders fighting to renew their marketplace dominance, as well as cheeky upstarts seeking to topple the well-established giants.

Steinbock's book is very readable and we will attempt to parallel Steinbock's meticulous organization in the pages that follow.

The Origins of Nokia

"The great optimist Fredrik Idestam," writes Steinbock, "was characteristic of his era. In the early 1860's, he started a small pulp mill in a remote corner of Finland
— the beginnings of the future Nokia Corporation. At first, the local paper factories were suspicious of Nokia products because Idestam’s operation was too small, and it lacked the clout of a foreign company. Consequently, Idestam believed that his company would first need to excel internationally in order to find success in the domestic markets. He tirelessly sought customers throughout continental Europe, and after he won a bronze metal for the quality of his pulp at the 1867 Paris World’s Fair, sales soon took off in Finland, Russia and England. Nokia was finally on its way up."

In the decades that followed, Nokia continued to grow and diversify. At the turn of the last Century, Nokia expanded into electrical power and built a water-driven power plant near the mill. The plant’s first customer, Finnish Rubber Works (FRW), soon entered into a partnership agreement with Nokia in order to obtain inexpensive energy. Thriving greatly during World War I due to an endless demand for tires and rubber boots, FRW grew rapidly and later acquired a majority stake in the smaller Nokia. However, the new owners continued to operate under the Nokia brand.

Shortly after, in 1922, FRW-Nokia assumed majority control of the Finnish Cable Works (FCW) company. With this acquisition, FRW-Nokia was intending to exploit the cable factory’s need for massive amounts of rubber. But FCW soon became the company that would set the course for the future of the Nokia conglomerate.

As Nokia diversified even further, its leadership employed cutting edge management techniques to keep the company focused. "Beginning in 1930, Nokia centralized its marketing and advertising activities under a single umbrella brand," explains Steinbock. "This, along with other developments such as mass customization and reliance on image to sell rapidly changing products, foreshadowed the secrets of Nokia’s success today."

From the 1920's to the 1960's, FCW products such as telephone cables and equipment drove Nokia's growth. In the early 1960's, Nokia shifted its focus to consumer electronics and expanded into cutting-edge fiber optic technologies. During this period, approximately 50 percent of Nokia's sales were to the Soviet Union. The Soviets were significant and demanding customers who fuelled Nokia’s growth tremendously. But Nokia’s leadership clearly recognized that the Soviet economy was not market-driven, and thus everything could collapse overnight as a result of one directive from the Kremlin. Thus Nokia focused on broadening its international appeal during the 1970's and 80's, challenging its workers to take postings abroad and learn other languages and cultures. Today, every single one of Nokia's 51,000 employees around the globe speaks at least two languages, one of them being English.

Nokia’s Global Focus Strategy

Shortly after Jorma Ollila became Nokia's CEO in 1992, the Executive Board decided it was time to discard the company’s historical diversification approach and greatly expand its profile outside of Europe. Nokia quickly reorganized toward telecommunications and mobile technologies, and concentrated its resources on
product development and customer satisfaction activities. In 1994, Nokia became the first manufacturer to launch a series of hand-held mobile telephones (the Nokia 2100 family) that could operate on any digital network around the world. By 1997, Nokia was supplying its phones to over 30 countries, more than any other hand-held manufacturer.

In 1997, Nokia was also one of the founding companies, along with Ericsson and Motorola, of the Wireless Application Protocol (WAP), a new global standard for Internet-based mobile handsets. The following year, Nokia co-launched Bluetooth together with the same two partners, as well as with IBM, Intel and Microsoft. The aim of WAP and Bluetooth is to create wireless connectivity — an open standard for short-range communication between different electronic devices, regardless of platform, manufacturer or application.

With these efforts, Nokia is building extraordinary value that benefits a wide variety of new and existing industry players, with Nokia perhaps benefiting most of all. Nokia is now widely considered to be among the world's five most valuable technology brands, and the future looks even brighter as it leads the way into a global, mobile information society.

The Nokia Revolution

Nokia began as a simple forestry business, moved quickly toward diversification, invested in new technologies, and implemented a global focus strategy under Jorma Ollila in the early 1990's. These historical developments illustrate the success of Nokia's strategy from the late nineteenth century to the turn of the new millennium, but they do not explain the strategic factors that drove this success. While they may point to some individual aspects of Nokia's "secret formula," they do not reveal the inner workings of the Nokia Revolution.

When Fortune magazine published an interview with Jorma Ollila, the editors could not help but speculate on three possible explanations for Nokia's extraordinary success: (1) Nokia is very lucky; (2) Jorma Ollila is very smart; or (3) something about the way Nokia works makes it more pragmatic, more focused and more flexible than any of its competitors. If you ask Steinbock, there's a kernel of truth in all three explanations, but when you talk to Ollila himself about his company's secret, it's clear he's partial to the third.

Certainly, Nokia has been lucky, especially with timing, but chance is a fickle success factor. Similarly, the reduction of Nokia's success to Jorma Ollila's management style is hardly a better explanation. On the surface, it may be tempting to believe because it is relatively easy to pin everything on the skills and talents of the chief executive. But in practice, no CEO has such power and influence, and as Steinbock argues, this is particularly true at Nokia. This is a company built on teamwork and a cross-functional orientation. And even more important, its executive board rather than Ollila alone has developed, formulated and implemented Nokia's global strategy.

If neither chance nor management style can explain Nokia's success, one must be
prepared to dig deeper to uncover the secrets of the Nokia Revolution. For starters, the Nokia history reveals some very significant lessons in strategic management theory. Nokia’s remarkable growth through partnerships and shared resources demonstrates that competition and co-operation need not always be mutually exclusive. It also speaks loudly about the benefits of collective decision-making, and the importance of taking risks to gain first-mover advantages and take the wind out your competitors’ sails. In a nutshell, the Nokia advantage probably looks something like this:

1. **Bold Strategic Intent.** While others debate and agonize over first-mover strategies, Nokia boldly rushes for new opportunities and products. Growing up as a small Finnish company with few resources and no obvious privileges, Nokia is accustomed to moving swiftly and decisively to claim its share of worldwide markets.

2. **Innovation through the Value Chain.** Through market segmentation, branding, and design, Nokia makes technological innovation a top priority. Like Procter & Gamble, it has shrewdly filled the store shelves with innovative new products to dominate categories. Like Sony, it has used its umbrella brand to sell new products and services and to create footholds in new markets. And unlike its rivals (Ericsson and Motorola), a research and development mindset is applied to the company's entire value chain, rather than just the engineering department. Upstream, R&D influences operations, new product development and logistics. Downstream it affects marketing, sales and service. This approach is very unique, and it serves as a perfect example of how technology-intensive companies can optimize their capital allocations in a complex, fast-moving economy.

3. **Flat Organization.** Nokia was among the first to extend the use of desktop computers throughout its ranks. As it became a team-oriented organization, it began to shun hierarchies and bureaucracy. Even senior executives are rotated from one work task to another. The organization chart may look hierarchic to an outsider, says Steinbock, but inside, teams and networking reign supreme. Instead of depending on a single CEO or a tiny cadre of top-down bureaucrats, Nokia relies on its executive board, with each member bringing something unique to the table. Guided by CEO Jorma Ollila, this "collective mind" crafts and continually refines the details of Nokia’s corporate strategy.

4. **Competition through Co-operation.** By managing its corporate and government relations with diplomacy and consideration, Nokia (unlike Microsoft) has been able to avoid high-profile and expensive anti-trust actions and competition tribunal struggles. Instead of trying to buy or crush potential rivals, Nokia works to co-operate with suppliers, partners, clients, and even direct competitors.

5. **Connecting People.** Contemporary Nokia has also been built on a belief that people are more important than products. The company has invested considerable resources in attracting, developing and retaining the most talented people it can find. It fosters a working environment that nurtures creativity and individualism. And, despite its rapid growth over recent years, management has
continued to support a corporate culture that's more typical of a fresh-faced technology start-up than a venerable old firm like Nokia. Not surprisingly, Steinbock found that employee satisfaction is nearly off the charts at Nokia. He believes that this is largely due to the fact that the company's core values, embodied in the slogan "Connecting People," are taken very seriously at all levels of the organization. These values include the drive for total customer satisfaction, respect for the individual, belief in continuous learning, and openness to new ideas.

Conclusion

The Nokia story is a powerful lesson in innovation and adaptability. Nokia’s move into hydro-electric power at the turn of the nineteenth century did not result from a commitment to a particular technology or capability, but rather from a commitment to innovation. In the 1960s, consumer electronics brought a similar breakthrough for the company, just as cellular communications would two decades later.

Again and again throughout the course of its history, Nokia has seized upon emerging opportunities to enter new and exciting businesses characterized by high risk but also great promise for growth. In each case, the company has staked its future on massive research and development projects, from forestry, rubber, and cable to electronics, cellular, and the mobile Internet. As business and financial stakes have risen, Nokia’s scale and scope have increased accordingly.

As so many New Economy firms struggle to find their own particular niche in the global marketplace, it is very reassuring to find a high-tech success story that ordinary people can still believe in. After becoming familiar with its history, it's hard to disagree with Steinbock that Nokia is a company that deserves every success it has achieved.

Nokia’s place at the top of the technology food chain stems from its willingness to actually listen to its customers — a fact that is apparent in its strategy, corporate structure, and most of all its products and services. Nokia truly has its finger on the pulse of the market. It often knows what we want, even before we do ourselves.

Throughout its 140-year history, Nokia has been bold and persistent. It has always dared to dream the impossible. As the world prepares to enter a new era dominated by mobile information technologies, this is one company you will definitely want to keep your eye on.