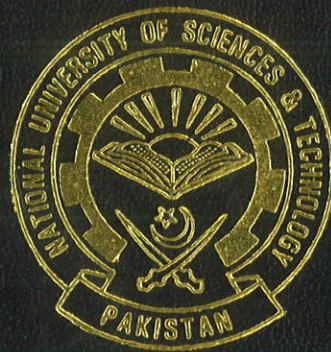


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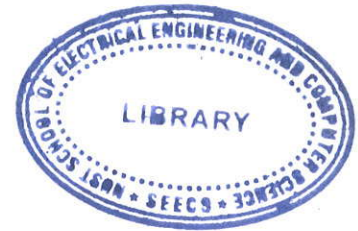


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| HASSAAN MASOOD | 2005-NUST-BICSE-15 |
| HASSAN MASOOD | 2006-NUST-BICSE-41 |

NUST Institute of Information Technology
2008

**Planning Engineering project Management
Project
(SWOT ANALYSIS)**



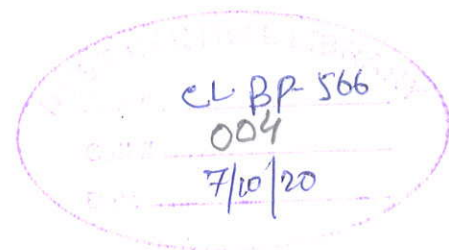
DEVELOPED BY

HASSAAN MASOOD
2005-NUST-BICSE-15
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HASSAN MASOOD
2006-NUST-BICSE-41
(BICSE-4A)

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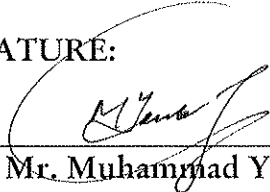
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SIGNATURE:



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and Project Management)

NUST INSTITUTE OF INFORMATION TECHNOLOGY

"SWOT ANALYSIS" OF NOKIA

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SWOT
Analysis

of

NOKIA

NOKIA

VISION

"As the market moves further into a new phase of advanced features and services, we see Nokia at the forefront in terms of brand, product offering and operational excellence."

Jorma Ollila, Chairman and CEO - NOKIA

MISSION

At Nokia, "Connecting People" is not just the slogan, it's the mission of the business. Nokia has a clear set of targets for the future. It aims at making the right decisions made at the right time, believing that this will breed success. The company also believes that success is earned through determination and by foreseeing developing market opportunities as well as by courageously creating new markets and opportunities.

HISTORY

What is the origin of the Nokia name?

The Nokia name comes from the ancient soot marten, a small, black-furred predatory animal that lived on the banks of the Nokianvirta river. The old Finnish word "nois," i.e. "nokia," meant a dark-furred sable, like the marten. Today the City of Nokia's coat of arms bears the likeness of this animal climbing a blue stream. As a place name, Nokia initially meant only the Nokia manor. Later, it was also used to refer to the people of Nokia in the parish of Pirkkala. When Fredrik Idestam founded the Nokia company in 1865, the Nokia name started to be used more commonly in reference to the entire industrial community that had emerged. The name of the Pohjois-Pirkkala township, established in 1937, was changed after one year to the Nokia township in congruence with the area's biggest industrial facility and employer. In 1977 the township became the city of Nokia.



nois

nois

nokia

THREE ROOTS

Nokia Company

Nokia's history starts in 1865 when engineer Fredrik Idestam established a wood-pulp mill by a river bank in Southern Finland and started manufacturing paper. The company, which he named Nokia, soon became successful as industrialization got under way in Europe and the consumption of paper and cardboard rapidly increased. Around the factory, a community grew, which was also later named Nokia. Idestam established an international network of salesmen and Nokia's products were first exported to Russia and then to the UK and France. In the 1930s, China also became an important trading partner.

From galoshes to winter fires

The Finnish Rubber Works initially opened in 1898 to manufacture galoshes. The Rubber Works became Nokia Company's neighbor after two of the company's executives passed through the area and realized not only its beauty, but that hydroelectricity was available. In the 1920s, The Rubber Works started to use Nokia as their brand name. In addition to footwear and tires, the company later went on to manufacture rubber bands, rubber industrial parts, raincoats, rugs, balls and other rubber toys.

Cables – the root of telecommunications

The company that became known as the Finnish Cable Works opened in 1912 in the center of Helsinki. Cables were needed for the growing need of power transmission as well as telegraph and telephone networks. Initially employing only a few people, the company grew rapidly. After World War II, Finnish Cable Works began trading with the Soviet Union, and exports to the West took off in the 1960s.

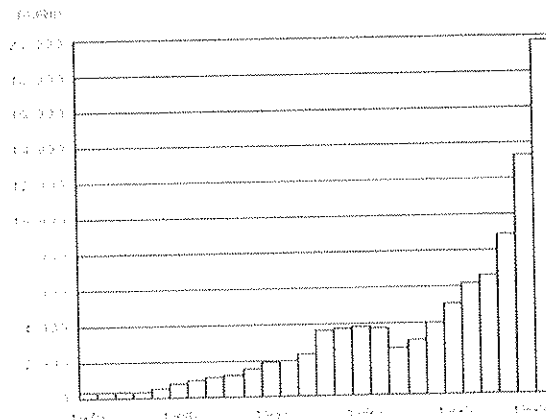
In 1922, the Finnish Rubber Works bought the majority of the Finnish Cable Works shares, and gradually the ownership of these three companies began to shift into the hands of the same owners. Finally in 1967, the three companies were merged to form Nokia Group.



STREAMLINING

During the deep recession at the beginning of the 1990s, both the telecommunications department and mobile phones were the supporting pillars of the company. Nokia made the next major strategic decision to focus its business on telecommunications by divesting its non-core operations. The latest divestments took place in 1995 and 1996 with the sale of the cable industry operations and the television business.

Nokia's overall business objective is to strengthen their global position by responding to new opportunities in mobile communications in a profitable way. This means building on strong brand, expanding their customer base and securing quality – all elements for growing our future business potential.



NOKIA MILESTONES

- 1865 The forest industry enterprise Nokia Company was established.
- 1871 Finnish Rubber Works was founded.
- 1877 Finnish Cable Works was established.
- 1885 The Electronics department of Finnish Cable Works was founded.
- 1890 Nokia started work on telecommunications equipment.
- 1895 Development of Nokia's radio telephone began.
- 1900 The development of data modems started.
- 1921 Nokia Corporation was formed by the merger of Nokia Company, Finnish Rubber Works and Finnish Cable Works.
- 1931 Nokia introduced the world's first 30-channel PCM (Pulse Code Modulation) transmission equipment conforming to the standards of CCITT (Consultative Committee on International Telegraphy and Telephony).
- 1935 Mobira Oy (Nokia Mobile Phones) was founded.
- 1947 Telenokia Oy (Nokia Telecommunications) was founded. The world's first international cellular mobile telephone network NMT opened in Scandinavia and Nokia introduced the first car phones for the network.
- 1951 Nokia introduced the first fully digitalized local switch in Europe, the DX 200.

1987 - Nokia introduced the world's first portable NMT car telephone: the Mobira Talkman.

1988 - Nokia introduced an NMT cellular mobile switch.

1989 - Nokia introduced the world's first NMT handportable, the Mobira Cityman.

1990 - The world's first ISDN (Integrated Services Digital Network) exchange conforming to CCITT standards, manufactured by Nokia, was taken into use in Finland.

1991 - The world's first genuine GSM call was made in Finland with equipment supplied by Nokia.

1992 - The world's first SMSC (Short Message Service Centre) was taken into commercial use in Europolitan's Nokia network.

1993 - Nokia was the first manufacturer to launch a series of hand-portable phones for all major digital standards (GSM, TDMA, PCN, Japan Digital): the Nokia 2100 family. Nokia introduced the world's first digital cellular data products, including the Nokia PC Card and the Nokia Cellular Data Card.

1994 - Nokia PrimeSite, the world's smallest base station for GSM networks, was introduced.

1995 - Nokia 9000 Communicator, the world's first ever all-in-one, easy-to-use mobile communications tool was introduced. The Nokia Mediamaster, the first digital multimedia terminal in the world was introduced.

1996 - The Nokia 8110 plus GSM hand-portable with Asian SMS made Nokia the first manufacturer to offer both simplified and traditional Chinese as well as Thai characters in one phone. Nokia was the first manufacturer able to provide the complete Smart Messaging solution, a new direct Internet access service technology.

A revolutionary new solution, the Nokia GSM Intranet Office, was introduced. It gives employees total mobility in the workplace via the company intranet. The Nokia LPS-1 loopset, an easy to use device for smooth interaction between a hearing aid and a digital mobile phone, was introduced.

Nokia announced the world's first media phone, the Nokia 7110 dual band GSM 900/1800 phone, that is fully compliant with the Wireless Application Protocol (WAP). Nokia introduced the world's first triple-mode (GSM, EDGE, WCDMA) base station, the Nokia UltraSite.

Nokia successfully carried out the world's first WAP service over a trial WCDMA system, in Beijing, China.

ORGANISATIONAL STRUCTURE

1. Board of Directors



Chairman

Jorma Ollila

Vice Chairman

Paul J. Collins

George Ehrnrooth

Dr. Bengt Holmström

Per Karlsson

Robert F. W. van Oordt

Dame Marjorie Scardino

Vesa Vainio

Arne Wessberg

The Board decides on matters that, in relation to the Group's activities, are significant in nature. Such matters include confirmation of the strategic guidelines, approval of the periodic plans and decisions on major investments and divestments. The Board appoints the CEO, the President, the Chairman and the members of Nokia's Group Executive Board. The Board also determines the remuneration of the CEO and the President.

The roles and responsibilities of the Board, its Chairman and its committees are defined in the Board's Rules of Procedure. The Board's committees consist of :

1. Audit Committee
2. Personnel Committee
3. Nomination Committee.

Audit Committee

The purpose of the Audit Committee is to assist the Board in fulfilling its responsibilities to oversee the accounting and financial reporting processes of Nokia. These include the oversight of the quality and integrity of Nokia's consolidated financial statements and related disclosure, the performance of its internal control and risk management and audit functions.

The Personnel Committee

The Personnel Committee's purpose is to oversee the personnel policies and practices of Nokia. It also assists the Board in discharging its responsibilities relating to the compensation of Nokia's executives. It has overall responsibility for evaluating, resolving and making recommendations to the Board regarding the compensation of top executives, incentive compensation plans and policies affecting executives, as well as all equity based plans and other significant incentive plans at Nokia. The Committee is also responsible for ensuring that the compensation programs are performance based, properly motivate management and support Nokia's overall corporate strategies. In addition, the Committee is responsible for the review of senior management's development and succession plans.

The Nomination Committee

The Nomination Committee prepares proposals for the general meetings in respect of the composition, remuneration principles, and remuneration of the Board to be approved by the shareholders. It also monitors significant developments in the law and practice of corporate governance and proposes necessary actions in respect thereof.

2. Group Executive Board

Group Executive Board is responsible for managing the operations of Nokia. The Chairman and the members of the Group Executive Board are elected by the Board of Directors. Only the Chairman of the Group Executive Board can be a member of both the Board of Directors and the Group Executive Board.

PRELIMINARY STUDY

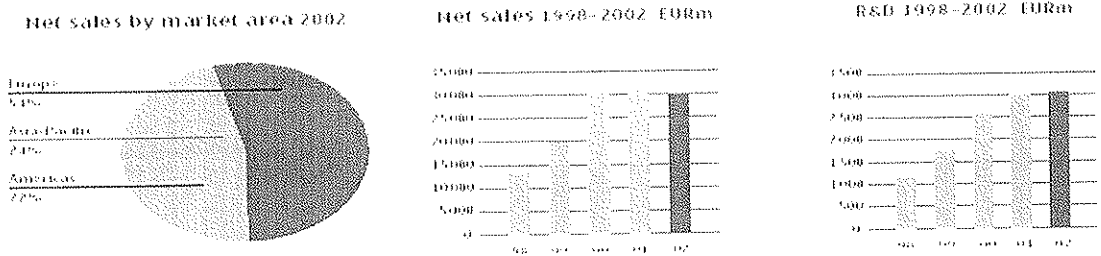


Nokia is world leader in mobile communications. Nokia's experience and innovation, combined with the user-friendliness, reliability and quality of its products and solutions have made Nokia the world's leading supplier of mobile phones and a leading provider of mobile and IP networks. The reason behind Nokia's accomplishments attribute much to unique corporate culture, which emphasizes and values product innovation, customer satisfaction and employees motivated by high levels of trust, independence and opportunities for personal and professional enrichment.

Nokia also supplies solutions and products for fixed and wireless data communications, as well as multimedia terminals and computer monitors. Nokia comprises three business groups:

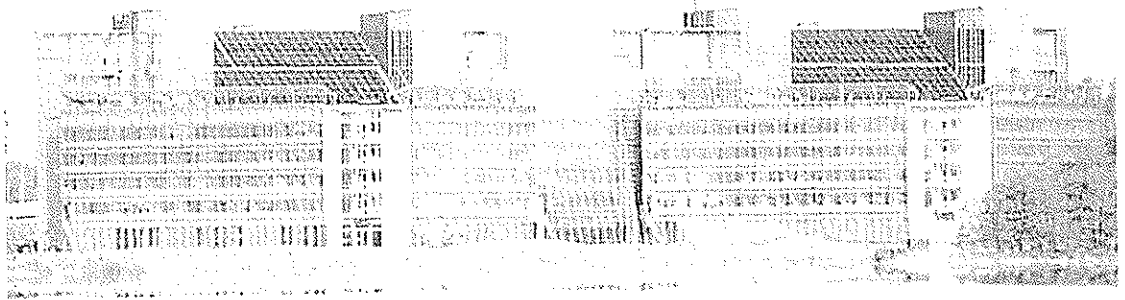
- ✓ Nokia Telecommunications.
- ✓ Nokia Mobile Phones.
- ✓ Nokia Communications Products.

In addition, Nokia includes a separate Nokia Ventures Organization and a corporate research unit, the Nokia Research Center.



Nokia's Growth

NOKIA BUSINESS GROUPS



Nokia House, located by the Gulf of Finland, was constructed between 1995 and 1997. It is the working place of more than 1000 Nokia employees.

1. Nokia Telecommunications

Although Nokia has built a solid reputation for manufacturing stylish, high-quality mobile phones, without networks the phones could not function. That's where Nokia Telecommunications comes in. A global leader in telecommunications technology, Nokia

Telecommunications develops and manufactures the equipment and systems needed to run communications networks. Nokia offers systems and infrastructure for both analog and digital wireless networks and fixed access networks. Their dedicated network products include switching, transmission, network management, and intelligent network (IN) solutions. These products are designed to meet the diverse needs of wireless, fixed, and convergent environments.

2. Mobile Phones



Nokia develops sophisticated mobile phones and accessories for all major digital (GSM, AMPS, CDMA, TDMA, and so on) and analogue standards. Sophistication aside, all features of Nokia mobile phones have been developed to make communicating easier for real people. As mobile phones become more and more widespread, they must overcome a major challenge i.e they must be as easy to use as a home or office phone, yet still provide all the advanced

services made possible by new telecommunications technology.

Nokia phones meet this challenge through their unsurpassed functionality. Mobile phones have moved from being strictly a tool for business to being an item of everyday convenience. Nokia understands this, that's why Nokia offers different phone features for different users. For example, the Nokia 9110 Communicator, an all-in-one mobile phone that offers fax, e-mail, and even Internet capabilities, is ideal for the serious business user, while the fun and economical Ringo is the perfect choice for the first-time user.

3. Nokia Communications Products



Multimedia Terminals

Nokia is a leading supplier of satellite and other Terminals designed for reception of digital broadcasting and multimedia applications. Nokia Multimedia Terminals collaborates closely with program and content providers world-wide to offer consumers attractive products and services, such as online education, entertainment, and shopping. The product development centers are located in Finland, Germany and Sweden, and Nokia has sales offices in all major European markets as well as in Asia-Pacific and the Americas.

Display Products

Nokia develops and manufactures computer and workstation monitors. The offerings include applications for professional desktop communication and new technology displays. Nokia is one of the leading manufacturers of professional computer and workstation displays in Europe, and the products are known for their outstanding picture quality, ergonomic design and user-friendliness

Industrial Electronics

Its main products are battery chargers for mobile phones. Nokia is strongly positioned in volume production of chargers due to the growth in the mobile phone market. Additionally, Nokia manufactures other power supply applications for wireless communication, advanced RF filters, and antennas. Nokia Industrial Electronics has production facilities in Finland, Hungary and

Sweden, and research & development activities in Finland and Sweden.

SWOT ANALYSIS



Strengths

Nokia is a strong company that has become a market leader in the cellular phone market. As a market leader they have the ability to shape and direct the market. It would be difficult for a competitor to shake them from this number one position, and reaching number one is always harder than staying there.

Market Share

Holding a market share almost double that of its closest competitor, has helped increase the financial resources of Nokia. With over \$30 billion in sales in 1999, they have the resources to remain in the number one position and fend off attacks from competitors.

Market Leader

In the economical viewpoint, they introduce many new technological systems that become standards for the entire industry and then present their own product to be the leader and capitalize on the gains

Strong Financial Resources

Strong financial resources also help maintain Nokia's impressive research and development. Developing new technology and remaining on the front line of changes in the industry is one of Nokia's strengths.

Excellent Marketing Skills

Quality technology is not enough to capture the largest share of the cellular market. Nokia has used its excellent marketing skills to increase brand awareness. As the largest manufacturer of cellular phones it is not surprising that Nokia has strong brand awareness. Nokia uses print, television, and online advertising coupled with sponsorships to maintain visibility in the marketplace. Part of Nokia's strategy has been to appeal to a wide range of groups with a wide variety of phones with different features and prices.

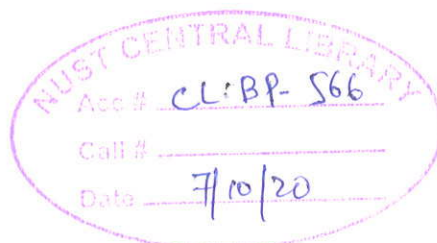
Exceptional Design Qualities

It has exceptional design qualities for its mobile products that promote this awareness. It is one of the core strategies for Nokia – to be the No. 1 in design.

Strong Corporate Culture

"Success for us means motivating, engaging and maintaining employee satisfaction and well-being." Hallstein Moerk, Senior Vice President Human Resources

Nokia strong corporate culture encourages loyal employees. Nokia works determinedly in the field of people processes to achieve positive employer status. The Nokia Employee Value Proposition, which presents a range of benefits for each employee, comprises four fundamental elements to motivate, engage and maintain



employee satisfaction, commitment and well being at work. These four elements are the Nokia Way and Values, Performance-based Rewarding, Professional and Personal Growth and Work-Life Balance.

Scale

The Nokia Company has the advantage of benefits of scale, especially in the handset market. They currently dominate over 325 of the handset market, which is almost twice that of Motorola, who takes the position of second place in the sector. As a result, Nokia, bring in the greatest margins in the mobile phone industry, which in turn provides them with more to reinvest in the company for R&D, new ventures and development, giving Nokia a distinct opportunity to expand their operations

Brand Reputation

Nokia has very strong brand recognition. Nokia phones have become more than just methods of communication; instead they have become a fashion statement. This was a result of the firm understanding the consumer nature of the product. Nokia understood that phones that look good, or that are fashionable could be a more effective differentiation for the general public than strictly focusing on technical specification beyond the consumer concern of reliability and functionality (however, Nokia has managed to address both). Hence, the popularity of Nokia phones has made them a trusted brand, where people look for phones by its name, and this consumer confidence in the product has led it to increase in popularity.

Research and development Performance

Nokia's research and development (R&D) programs are dedicated to keeping Nokia at the forefront of telecommunications technology. The majority of Nokia's R&D work is product development conducted within the business groups. The corporate R&D unit, Nokia Research Center, focuses on maintaining Nokia's technological competitiveness and strengthening Nokia's core competencies.

Weaknesses

Geographically dispersed operations

Nokia is a large organization with operations in multiple countries. The size of the organization means that operations are large and complex. Managing such a large organization is a weakness, due to the fact that it is often difficult to initiate change and adapt to market conditions especially in such a technology driven industry. The operations in various countries can also be a weakness, as the organization must deal with fluctuating exchange and interest rates in those countries.

Open Platform Wireless Technologies

Open platform (wireless) could take away some of Nokia's advantages as applications and software would be available for competing providers.

Product differentiation cost leadership

It is difficult to bring to the market products that are differentiated as well as low cost.

Opportunities

Technological Advancement

Advancement in technologies like 3G and WAP has created new arenas for viable products and services.

Increasing need

Growing importance of wireless access by consumer and businesses will provide a sizeable market for the intermediate future. Huge untapped markets in undeveloped countries and areas provide a great opportunity to nokia to prosper.

Threats

High risk for underdeveloped Areas

Risk of underdeveloped areas is high and comes with high costs.

Maintaining Continuous Research and Development

Failures to maintain research and development could cost Nokia both market shares and sales in such a fast changing in technology era.

Lack of Industry Standards

No clear cut industry standards yield a cloud of uncertainty over

operations.

Increasing Competition

Although Nokia continues to dominate the mobile phone market, they need to be aware of the increasing competition in an industry that is closely approaching a mature market. The annual sale of mobile phones is dropping considerably. From 1999 to 2000, sales dropped from 67% to 47%, and this year it is estimated at 30%. To deal with this maturing market, the competition had increased as each firm tries to grasp at a significant portion of that percentage. Nokia needs to stay on top of this competition, especially as the Japanese firms try taking the lead on the development of the "next-generation" phones. Nokia did not help this competition when they had to push back the rollout of the 3G phone mentioned above until late 2002.

GENERAL ENVIRONMENT



1. SOCIO-CULTURAL ANALYSIS

Opportunities

Fashion Statements

Cellular phones have become so widely used that they have become fashion statements. Cellular phones have also become a fashion statement, greatly impacting appearance. Phones now

have the ability to have covers changed to change appearances. New models are coming in an increasing variety of colors. Greater numbers of accessories are being produced that enable consumers to customize their cellular phones. Nokia recently participated in Paris Fashion Week, indicating their acceptance as a fashion element.

Technological Advancement and its impact on Life

Advances in technology have spurred a changing business environment. Businesses are moving and changing faster than ever. They are dealing in internet speed. The faster pace of the business environment has been both enabled and encouraged by advances in technology and cellular phone usage. Socially there is a greater expectation on people to maintain a fast paced lifestyle, and cellular phones are key to this existence.

Threats

Vast amounts of people have begun using cellular phones in a short amount of time. The mobility and convenience of the items encourages users to talk on the phone in various locations and situations. As users began using the phone in restaurants, theaters, and other public venues; the public began lashing out on the inappropriateness of cellular phone use. People are dealing with social repercussions of cellular phone use by enacting rules or tossing dirty looks at those that fail to act according to an unspoken code of conduct.

2. TECHNOLOGY ANALYSIS



Opportunities

3G Technology and the Future Horizons for Nokia

Although the technology behind 3G may seem complicated, the ways in which 3G will affect all of our lives are easy to imagine. Just imagine having a combined camera, video camera, computer, stereo, and radio included in your mobile phone. Rich-media information and entertainment will be at your fingertips whenever you want anywhere there is a wireless network.

Mobile communication is moving from simple voice to rich media, where we use more of our senses to intensify our experiences. But

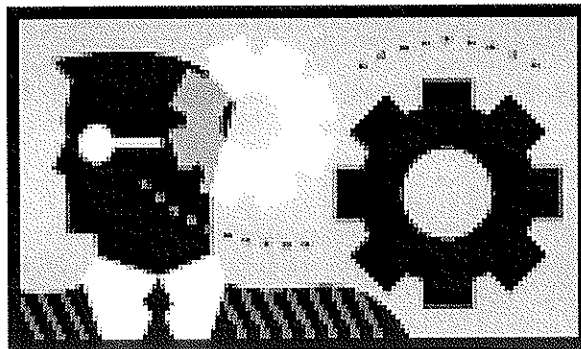
not all of this will happen at once. 3G is an evolution to a communications ideal that no one completely understands yet. What we do know is that mobile multimedia will hit the Japanese markets in 2001, and Europe and North America will follow soon after.

Threats

Open Platform Wireless Technologies

Open platform (wireless) could take away some of Nokia's advantages as applications and software would be available for competing providers.

4. POLITICAL-LEGAL ANALYSIS



Opportunities

Moving Towards Hand Free Devices

With the need of using hand free devices, new opportunities can arise for Nokia. Now they can concentrate more on blue tooth devices that are the need of Future. With the blue tooth devices

communication takes place directly between the electronic devices that are paired and all this can take place without user intervention.

Threats

Scientific Research Claims

Scientific data and research has recently pointed to the possibility that cellular phones may cause brain cancer. There is also concern that the radio frequency that cellular phones operate on may cause interference with implanted medical devices such as pacemakers. The demand to protect consumers may legally impact producers of cellular phones.

Concerns regarding Safe

Many people believe that cellular phone use distracts automobile drivers. The wide spread usage of cellular phones has increased and the mobile nature has naturally meant that auto operators desire to use phones while driving. An increased frequency of accidents involving cellular phone users has spurred many countries to create laws requiring drivers use hands-free devices.

5. ECONOMIC ANALYSIS



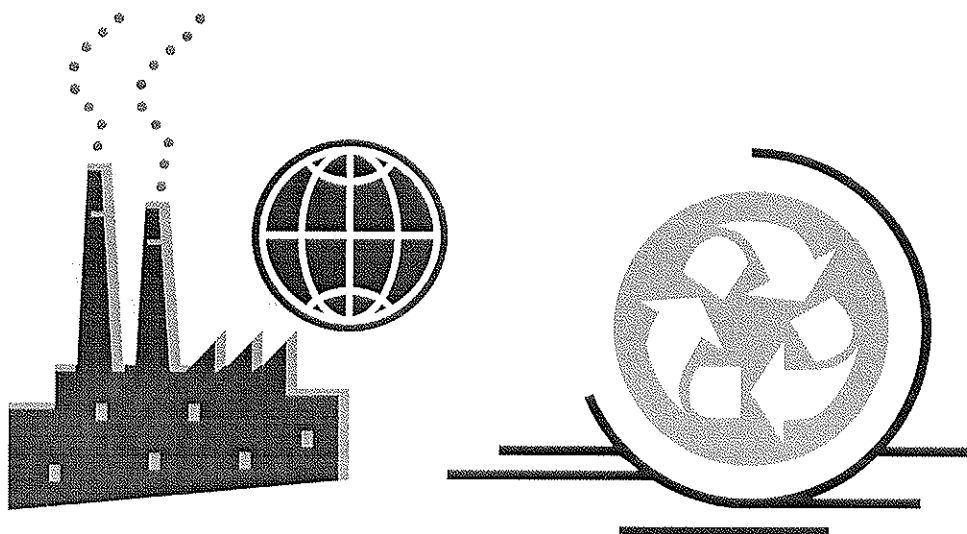
Opportunities

Market Growth and Nokia

The trend in the global economy is to support the products of Nokia into the future. The market is supposed to grow by 100% within the next two years, making it possible to retain the current high yields and growth rates.

In the economical viewpoint, they introduce many new technological systems that become standards for the entire industry and then present their own product to be the leader and capitalize on the gains.

INDUSTRY ENVIRONMENT



Nokia competes in the global telecommunications industry in general and in the mobile industry in particular. During 2002, the market for mobile phones showed slight overall volume growth, reflecting the arrival of feature-rich multimedia products supporting compelling new advanced mobile services. The mobile network infrastructure market showed an overall decline, largely as a result of network operators cutting back on their level of capital investments as they focused increasingly on short-term cash flow generation and debt reduction.

Open Mobile Alliance

As the mobile industry evolves into new applications and services, cooperation among industry players has intensified, facilitating the faster adoption of mobile services as well as market growth for the entire mobile industry. Nokia, an active promoter of the Open Mobile Architecture initiative, launched in November 2001, was a

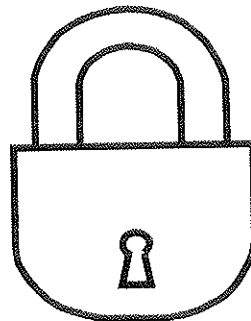
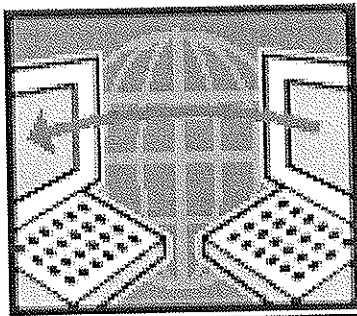
technologies such as color, Java, MMS and XHTML have become tangible reality in the form of new

device functionality, applications and services, contributing to the creation of entirely new communications markets.

2. Communication Networks

Nokia expects the new high-speed and high-capacity networks to be more complex than traditional telecommunications networks. This will require the capability to integrate different elements in well-functioning systems and end-to-end solutions for mobile and fixed broadband networks. Today, operators or service providers can choose among a variety of solutions from different vendors for different network elements. In addition, one can expect that infrastructure vendors like Nokia with strong end-to-end capabilities will have an advantage because they will be able to offer their customers the ability to deliver seamless Internet and Intranet application services for all types of networks. This means a broader choice and better quality of advanced mobile services available for business users and consumers.

2. Internet Security



Protection of corporate digital assets has become a priority as companies extend network access to their employees, partners and customers. Maintaining the integrity and security of a company's information and protecting its network from unauthorized or fraudulent exploitation requires the installation of dedicated comprehensive appliance-based security solutions as well as the implementation of increasingly effective security policies.

While companies continue to deploy various security solutions including firewalls, they are also focusing on other essential security applications such as vulnerability assessment, intrusion detection, anti-virus and content security. Nevertheless, in 2002, overall information technology spending was flat and the corporate network security market experienced slow growth.

COMPETITOR ANALYSIS

Now that the identities of the major and minor competitors are known, the analysis will take a look in more detail at the major players and what they offer as their competing products and what technological edge do they possess.

LG TeleCom, Ltd.

LG TeleCom, Ltd. is an affiliate of the LG Group and was established in 1996 at Seoul. Korean government authorizes LG TeleCom R&D

Center as a national center for industrial research. Sprint and LG are introducing two CDMA internet-ready phones. Verizon Wireless agrees to use 500,000 handsets from LG (LG TeleCom, 2000).

Sony

Sony offers an impressive line of wireless phones. Their goal is to stay on the cutting edge of communication service. With their understanding of the electronic industry and heavy R&D, they are able to catch up technologically in the mobile phone industry. Relying on their D-WAVE technology, they are able to produce the smallest mobile phones in the world (Sony Corporation, 2000).

Samsung

Samsung Electronics in 1996 signed with Sprint to supply PCS mobile phones. In 1997, Samsung sold 1 million CDMA handsets, which is a world record. They were the first in the world to have cellular phone with voice-activated dialing system. Export started in China in 1998 and full-scale exports of CDMA WLL handsets to Russia. Samsung's new products take mobile phones to new directions with its watch phone, MP3 phone, and TV phone. This year they have attained 5.6 of the global market share (Samsung, 2000).

Motorola

Motorola released its first personal mobile phone in 1989, the MicroTAC. This year

sales of mobile phones increased significantly in the Americas, were higher in Asia and decreased significantly in Europe. Digital

products represented 98 percent of mobile phone sales. Overall they fell to 15.6 percent in the second quarter from 16 percent of the market share (Motorola, 2000).

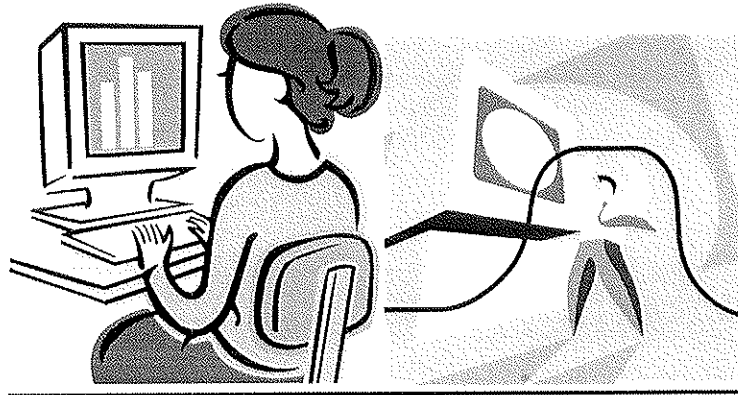
Ericsson

Ericsson is the world's leading supplier in telecommunications with the largest customer base. They provide everything from systems and applications to mobile phones. Ericsson has the highest R&D ratio in the world, around 15% of sales. This year they saw the largest decrease in market share, falling to 10.3 percent from 11.5 percent. The reason for this decrease is that the company has been plagued by production problems. Its new product line, the first two quarters of the year. Ericsson's new product line, the R520, allows for high, speed transmission of data for mobile Internet services. It also allows for secure e-commerce transactions and automatic synchronization to PC (Ericsson).

Siemens

Siemens, like Sony, is a giant and an old hand in the electronic industry which entered the mobile phone industry. This German based company developed the first GSM cellular phone with color display. This year, so far, they were able to capture 5.5% of world mobile phone market shares (Siemens, 2000).

CONCLUSION



In less than a decade Nokia Group has moved from a position of a market follower to a position of a market maker. During the same period the company has transformed itself from a diversified European company into a focused global firm. The strategic planning framework and the Nokia way of management are common and could be from any management textbook.

Simple, strong communication style has benefits for the organization. There are less political games, there are less hidden agendas. In a situation where many people have to commit themselves to a joint vision, simple messages are the only effective ones. The energy of the organization is not lost in bureaucracy or internal conflicts. Most of the organizational energy is directed in a "positive" way.

A second strength is the eagerness of the Nokia management to meet people all over the world and to interact and learn. "Nokia is all over the world - it learns what's good in every culture it works in and combines it all." Nokia president Pekka Ala-Pietilä calls his company's readiness to adapt to local conditions "selecting horses for courses."

Will these strengths be able to help Nokia in its continuous transformation also in the next millennium is a 100 billion dollar question.

NOKIA

