

A Service of



Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre

Salmi, Minna

Working Paper

The Rise of Kone Elevators to the Top of the World

ETLA Discussion Papers, No. 505

Provided in Cooperation with:

The Research Institute of the Finnish Economy (ETLA), Helsinki

Suggested Citation: Salmi, Minna (1994): The Rise of Kone Elevators to the Top of the World, ETLA Discussion Papers, No. 505, The Research Institute of the Finnish Economy (ETLA), Helsinki

This Version is available at: https://hdl.handle.net/10419/187137

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



Keskusteluaiheita - Discussion papers

No. 505

Minna Salmi

THE RISE OF KONE ELEVATORS
TO THE TOP OF THE WORLD



ETLA Discussion papers no. 505

Kansallinen kilpailukyky ja teollinen tulevaisuus projektissa tutkitaan, millaista teollista toimintaa voidaan harjoittaa Suomessa menestyksekkäimmin. Siinä tutkitaan menestyneitä vientiyrityksiämme ja pohditaan, miten niiden toimintaympäristöä tulisi kehittää, jotta ne pystyisivät saavuttamaan kilpailuetuja kansainvälisiin kilpailijoihin verrattuna.

Projektin päärahoittajina ovat Suomen itsenäisyyden juhlarahasto (SITHA), Elinkeinoelämän Tutkimuslaitos (ETLA), kauppa- ja teollisuusministeriö (KTM) sekä eri alojen tärkeimmät yritykset.

"The Competitive Advantage of Finland" research project evaluates the competitiveness of Finnish export industries and crucial elements behind their performance. The project focuses on what kind of industrial activities have the best possibilities for success in Finland.

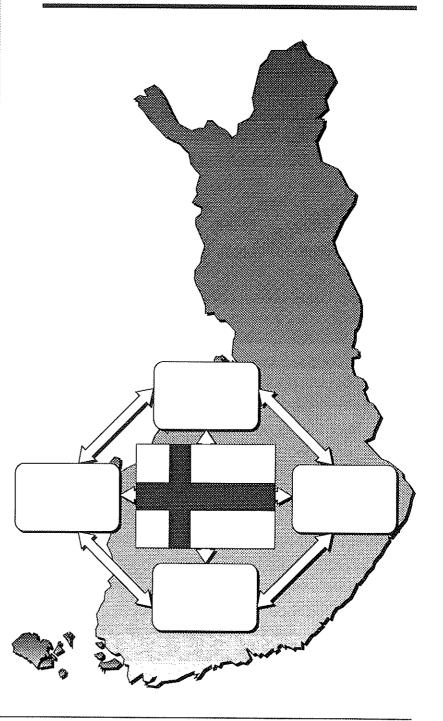
The project is organised by Etlatieto Ltd and financed mainly by the Finnish national Fund for Research and Development (SITRA), The Research Institute of the Finnish Economy (ETLA), Ministry of Trade and Industry (KTM) as well as major companies in various fields.



Minna Salmi

Kansailinen kilpailukyky ja teollinen tulevaisuus The Competitive Advantage of Finland

THE RISE OF KONE ELEVATORS TO THE TOP OF THE WORLD





SALMI, Minna, THE RISE OF KONE ELEVATORS TO THE TOP OF THE WORLD. Helsinki: ETLA, Elinkeinoelämän Tutkimuslaitos, The Research Institute of the Finnish Economy, 1994. 29 p. (Keskusteluaiheita, Discussion Papers, ISSN 0781-6847; no. 505).

ABSTRACT: Finns have made a lot of mistakes when going through the internationalization processes of their companies. There are, however, some positive exceptions one of which is Kone Corporation. Its internationalization process was extremely rapid, effective and most of all successful. But how did Kone, the third biggest elevator company in the whole world, succeed in doing that. This report will give the answers to the following questions: 1) why did Kone internationalize, 2) how did Kone actually internationalize and 3) what are the factors behind Kone's success. Additionally, at the beginning of the paper I will discuss about the early years of Kone Oy, about the three Herlin family members who each contributed significantly to the success of the family enterprise and clarify the pre-stages of internationalization. The case of Kone is a good and educational example to the internationalizing Finnish companies. Therefore I hope that this report serve Finnish management and their companies in their way to international markets.

SALMI, Minna, KONEEN HISSIEN NOUSU MAAILMAN HUIPULLE. Helsinki: ET-LA, Elinkeinoelämän Tutkimuslaitos, The Research Institute of the Finnish Economy, 1994. 29 s. (Keskusteluaiheita, Discussion Papers, ISSN 0781-6847; no. 505).

TIIVISTELMÄ: Suomalaiset ovat tehneet paljon virheitä yrittäessään laajentaa liiketoimintojaan kansainvälisille markkinoille. Menestyneitä poikkeuksiakin kuitenkin löytyy - Kone Yhtymä on yksi harvoista. Sen kansainvälistymisprosessi oli erittäin nopeatempoinen, tehokas ja ennen kaikkea menestykäs. Mutta miten Kone, nykyisin maailman kolmanneksi suurin hissiyritys, onnistui siinä, missä niin monet suomalaisyritykset ovat epäonnistuneet. Tämä raportti pyrkii vastaamaan seuraaviin kysymyksiin: 1) miksi Kone kansainvälistyi, 2) miten Kone kansainvälistyi ja 3) mitkä tekijät ovat Koneen menestyksen takana. Paperin alussa kerron myös Koneen alkuvuosista ja kolmesta Herlinin suvun miehestä, joista jokainen on omalta osaltaan vaikuttanut merkittävästi perheyrityksen menestykseen. Alussa selvitän myös Kone Yhtymän kansainvälistymisen esiasteet. Koneen tarina on hyvä ja opettavainen esimerkki suomalaisille kansainvälistymisprosessin kynnyksellä oleville yrityksille. Siksi toivonkin, että tämä raportti palvelee suomalaisia yrityksiä ja yritysjohtoa heidän kansainvälistymispyrkimyksissään.



YHTEENVETO

Suomalaiset ovat tehneet paljon virheitä yrittäessään laajentaa liiketoimintojaan kansainvälisille markkinoille. Menestyneitä poikkeuksiakin kuitenkin löytyy, joista yksi on Kone Yhtymä. Sen kansainvälistymisprosessi oli erittäin nopeatempoinen, tehokas ja ennen kaikkea menestyksekäs. Koneen tarina on hyvä ja opettavainen esimerkki suomalaisille kansainvälistymisprosessin kynnyksellä oleville yrityksille, minkä takia tämä aihe onkin otettu mukaan ETLA:n Kansallinen kilpailukyky ja teollinen tulevaisuus -tutkimusohjelmaan tutkimusta tukevana osaraporttina.

Tämä raportti etsii vastauksia varsin tavallisiin yrityksen kansainvälistymistä koskeviin kysymyksiin: 1) miksi Kone kansainvälistyi, 2) miten Kone kansainvälistyi ja 3) mitkä tekijät ovat Koneen menestyksen takana.

Pääsyyt Koneen kansainvälistymisprosessin käynnistämiseen olivat yrityksen itsenäisyyden säilyttäminen ja markkina-alueen laajentaminen. Pekka Herlin tajusi, että Suomen markkinat ovat Koneelle liian pienet. Tässä tilanteessa Koneella olikin vain kolme vaihtoehtoa: konkurssi, yrityksen myynti monikansalliselle hissiyritykselle tai tulla itse monikansalliseksi ja täten säilyttää itsenäisyytensä sekä laajentaa markkina-aluettaan.

Koneella oli hyvin selkeä kansainvälistymisstrategia. Strategia muotoiltiin yrityksen toiminnan ja tuotteen luonteen mukaan ja sitä seurattiin systemaattisesti. Lisäksi kehitettiin erilaisia valittua strategiaa tukevia toimia. Näitä olivat mm. suunnittelu, budjetointi ja valvonta -järjestelmä (PBC-system) ja pitkän aikavälin suunnittelu (LRP). Myös johdon koulutusjärjestelmät luotiin ja otettiin käyttöön.

Luonnollisesti kaikki edellä mainitsemani seikat ovat olleet vankka perusta Koneen menestykselle. Ne eivät kuitenkaan yksin ole tuoneet menestystä. Mainitsemisen arvoisia seikkoja ovat myös Koneen businessfilosofia ja pyrkimys jatkuvasti kehittää kansainvälisten toimintojensa strategiaa. Myös onnella ja sattumalla on ollut vaikutuksensa.



TABLE OF CONTENTS

			Page	
1.	PRESENTATION OF THE CASE COMPANY			
	1.1.	The Kone Group of Companies	1	
	1.2.	The Divisions of Kone Oy	3	
		1.2.1. Kone Elevators	3	
		1.2.2. Kone Cranes	3	
		1.2.3. Kone Wood & Other Business Sectors	4	
2.	THE DEVELOPMENT OF KONE OY BEFORE ITS INTERNA-			
	TION	VALIZATION STAGE	4	
	2.1.	The Early Years of Kone Oy	5	
	2.2.	Two Engineers and an Economist	5	
	2.3.	Pre-stages of Internationalization	7	
3.	REASONS FOR INTERNATIONALIZATION			
	3.1.	Independence	8	
	3.2.	Expanding the Market Area	9	
4.	THE STRATEGY OF INTERNATIONALIZATION			
	4.1.	Acquisition as a Strategy of Internationalization	9	
	4.2.	Supportive Activities	12	
	4.	.2.1. Planning and Control	12	
		2.2. Management Education	14	
5.	FACTORS INFLUENCING THE SUCCESS			
	5.1.	Business Philosophy	16	
	5.2.	The Development of the Strategy of International Activities	18	
	5.3.	Other Factors Influencing the Success	19	
	5.4.	PH and the Strong Ownership	20	
6.		MOST SIGNIFICANT NEW SUBSIDIARIES IN THE 60S - ND THEIR INFLUENCE IN BUSINESS	21	
	oud A	IND THEIR INFLUENCE IN BUSINESS	21	
7.	CON	CLUSIONS	24	
LIST	OF REF	FERENCES	27	
APPI	APPENDIX			



1. PRESENTATION OF THE CASE COMPANY

1.1. The Kone Group of Companies

The Kone group of companies considers the Finnish parent company, Kone Corporation, and the subsidiaries in which its direct or indirect interest exceeded 50% at the end of 1993. Kone has production plants in several countries in Europe, North and South America and Asia. All Kone divisions strive for local customer service excellence. The local companies of the group are supported by worldwide corporate financial, technology and manufacturing resources.¹⁾

Compared to the previous year, the sales of 1993 show a growth of approximately 4%. Except Asia the market situation remained difficult in all geographical areas where Kone is active. Thus, the overall demand for Kone products suffered from a recession in Europe and depression in Scandinavia; growth was sought and also obtained from East Asian markets. More than one half of Kone's turnover comes from maintenance and modernization activities. The growth of maintenance business remained stable, but the volume of modernization activities declined a little bit. The key markets of the Kone group of companies are clearly in Europe, whose share of total sales was approximately 72% in 1993. Accordingly, Kone regards itself as European company and is elsewhere - at least for now - a small company compared to the market leaders in those regions. In total the sales of the corporation, FIM 10 813 million, are distributed to market areas in the following way (figure 1):

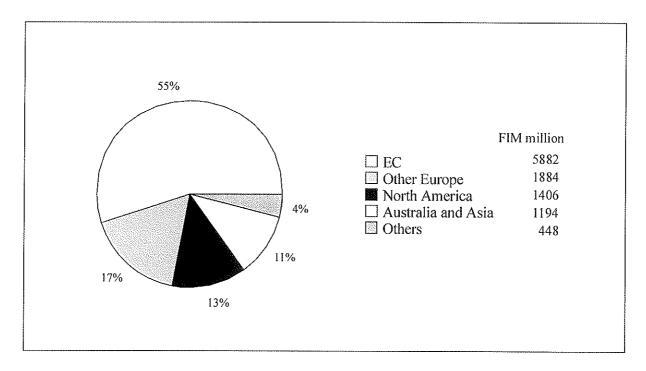


Figure 1. The sales by market of Kone Oy in 1993.

¹⁾ Kone Annual Report 1993, 6

²⁾ Kone Annual Report 1993, 11-12, 15

³⁾ Rossi and Santonen, 1990, 33

Correspondingly, the personnel of the corporation, 20 710 employees, was geographically distributed as follows (figure 2):

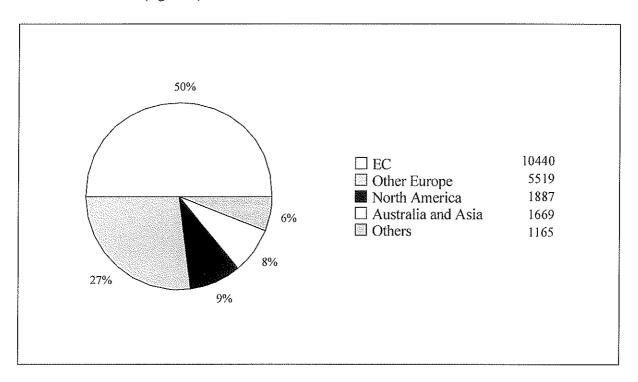


Figure 2. The employees by market of Kone Oy in 1993.

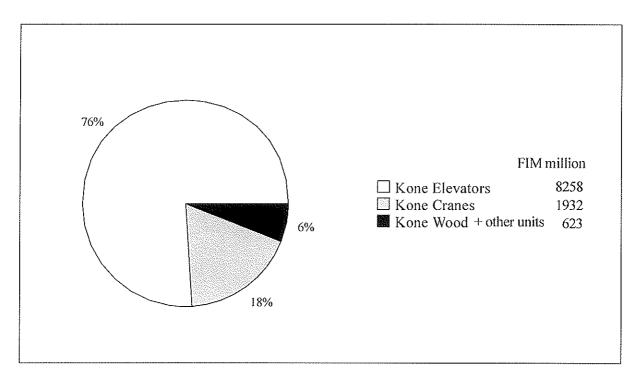


Figure 3. The sales by division of Kone Oy in 1993.

The main business fields of Kone are vertical transportation, industrial and dockside materials handling, and wood handling in pulp and paper mills. In each of these fields, Kone is a world-

wide leader. In addition to production the Kone group and its associated companies operate extensive installation and maintenance organizations in key markets around the world. In 1993 the sales of the corporation, FIM 10 813 million, was divisionally distributed in the following way (figure 3):

1.2. The Divisions of Kone Oy

1.2.1. Kone Elevators

Kone Elevators' main activities are elevator and escalator production, maintenance and modernization. The main products of the division consist of passenger, bed and freight elevators, hydraulic elevators, escalators and autowalks. Maintenance and modernization business account for more than 60% of Kone Elevators' turnover leaving new elevator sales with less than 40%. Local Kone Elevator subsidiaries and joint ventures are responsible for the maintenance of over 338 000 elevators worldwide. In recent years, also the modernization activities have become an increasing and more important part of Kone Elevators' business. have become an increasing and more important part of Kone Elevators' business.

Kone is the third biggest elevator company in the world maintaining 20 production facilities in 14 countries. Alltogether it has activities in more than 60 national markets around the world and personnel of 16 900 at the end of 1993. The headquarters of Kone Elevators are in Brussels, Belgium.⁴⁾

1.2.2. Kone Cranes

Kone Cranes manufactures and markets a broad range of electric hoists and crane components as well as gantry, jib-portal and overhead traveling cranes and unloaders. Additionally, Kone Cranes provides comprehensive maintenance and modernization services, which have grown in importance and will continue to play important roles in Kone Cranes' future. Kone Cranes build, install and service its cranes through subsidiaries and joint ventures in 21 countries. Licensees and sales representatives have activities in another 20 countries. Kone Cranes had personnel of 2 858 at the end of 1993 and its headquarters are in Hyvinkää, Finland. When writing this, Kone Oy made an agreement on selling Kone Cranes. The new owner will be Industri Kapital and its ownership will begin during April 1994.

¹⁾ Kone Annual Report 1993, 6

²⁾ Kone Annual Report 1993, 6, 41

³⁾ Kone Post, 1993, 5

⁴⁾ Kone Annual Report 1993, 41; Kone Post, 1993, 5

⁵⁾ Kone Annual Report 1993, 6; Kone Post, 1993, 5

⁶⁾ Kone Annual Report 1993, 47; Kone Post, 1993, 5

1.2.3. Kone Wood & Other Business Sectors

Kone Wood designs, manufactures and markets wood, chip and bark processing systems as well as equipment for the pulp, paper and wood processing industry. Kone Wood had sales of FIM 317 million in 1993 and personnel of 507 at the end of the year. The company's head-quarters are located in Atlanta, USA.¹⁾

Kone Instruments manufactures and markets clinical chemistry analyzer systems. These systems consider analyzers, reagents and disposables. The products of Kone Instruments are used in diagnostic tests in hospitals as well as in veterinary, food and water laboratories. The sales of Kone Instruments in 1993 totaled FIM 174 million and the number of employees was 256 at the end of the year. The headquarters of Kone Instruments are in Espoo, Finland.²⁾

GS-Hydro Group supplies piping construction materials, machinery and services to industrial, shipbuilding and offshore customers. The sales of GS-Hydro in 1993 totaled FIM 98 million and personnel numbered 103 at the end of the year. The company is headquartered in Hamburg, Germany.³⁾

The Kone Steel Foundry in Raahe, Finland produces castings of various qualities of steels for Kone components as well as for outside customers according to customer wishes. Castings may be produced as serial production according to shell molding methods or individual pieces by hand molding techniques. The foundry had sales of FIM 34 million in 1993 and personnel of 86 at the end of the year.⁴⁾

2. THE DEVELOPMENT OF KONE OY BEFORE ITS INTERNA-TIONALIZATION STAGE

Three generations of Herlins have guided Kone through the three major stages of its development and growth to date. Harald, Heikki and Pekka Herlin - two engineers and an economist - have each been the right man in the right place to make decisions which in prevailing situations were inevitable in order to let Kone Oy survive, grow and develop. However, the Herlin family did not found Kone Oy. The company was already 14 years old when Harald Herlin purchased the majority of Kone shares in 1924. Ever since the family has held majority ownership which means that the touch of their hands has always been identifiable in the company. This chapter will tell about the early years of Kone Oy. The contribution of three Herlin family members to the success of Kone will also be explained and the most important happenings before the company's internationalization process will be summarized.

¹⁾ Kone Annual Report 1993, 51; Kone Post 1993, 5

²⁾ Kone Annual Report 1993, 53; Kone Post 1993, 5

³⁾ Kone Annual Report 1993, 53; Kone Post 1993, 5

⁴⁾ Kone Annual Report 1993, 51; Kone Post 1993, 5

⁵⁾ Simon, 1991, 5

2.1. The Early Years of Kone Oy

Oy Kone Ab was founded in 1910 as the daughter company of Ab Gottfried Strömberg Oy and its line of business was the repair and sale of rebuilt motors. In those days Ab Strömberg Oy was the distributor for Graham Brothers in Finland the latter being the leading elevator company in Scandinavia. In 1912, Lorenz Petrell, the head of Strömberg's elevator department became managing director of Kone. Engineer Petrell had a dream of beginning elevator production in Finland. However, he had to give up with his dream due to World War I, since Kone's manufacturing resources were called upon to produce supplies for the Russian Army.¹⁾

In 1917, when Finland declared her independence and the war supplies' production was finished, Kone made an agreement with its mother company Strömberg. According to this agreement Strömberg terminated its license with Graham Brothers and both the personnel of Strömberg's elevator department and its maintenance agreements were transferred to Ab Kone Oy. First Kone elevators were delivered in 1918. Kone had established its own elevator independence and a new branch of industry had been established in Finland.²⁾

At the beginning of the 1920s there was strong competition in the elevator markets. German and Swedish elevator companies provided their products at comparatively low prices in the Finnish construction markets which were recovering. But thanks to its production technology Ab Kone Oy could respond to the price competition. Kone elevators were already in those days comparable to the elevators of European origin.³⁾

2.2. Two Engineers and an Economist

While the business of Oy Kone Ab was developing positively its mother company Strömberg was confronting serious financial difficulties. In those days Harald Herlin was a member of the Advisory Board of Strömberg and got a task to investigate the company's preconditions for profitability. Meanwhile the decision was made to sell off some parts of the organization, and Harald Herlin offered to buy Kone shares. The offer was accepted and so Kone separated from Strömberg in 1924. Harald Herlin was experienced in industry and believed in the future of Finnish elevators. So he took the challenge to build Kone from a tiny little elevator company to a large scale enterprise. The chances of succeeding were excellent since Kone was the only elevator company in Finland. The most important deliveries at the beginning of the 1930s were the elevators of Stockmann's department store and the parliament house in Helsinki. The success of these deliveries meant the total breakthrough for the Finnish elevator. Harald Herlin was chairman of the Board of Directors of the company in 1924 - 1941. 4)

^{1) 1910} Kone 1990, 1990, 2; Simon, 1991, 6

^{2) 1910} Kone 1990, 1990, 2; Simon, 1991, 6

^{3) 1910} Kone 1990, 1990, 2

^{4) 1910} Kone 1990, 1990, 2

Harald's son, Heikki H. Herlin was a creative and enthusiastic engineer who also had a gift for languages and a flair for leadership. Heikki H. Herlin began to work in the family enterprise in 1928 as assistant of technical manager. At the same time he became a member of the Board of Directors of Kone. After an international internship which considered stints with Brown and Boveri in Germany and both Westinghouse and Otis in the United States, he became managing director of Kone in 1932.¹⁾

Unlike his father, Heikki H. Herlin participated in practically every detail of the business and was personally responsible for many product innovations and improvements. Under his guidance, the family enterprise managed to develop the technological strength that later enabled it to succeed in the competition on world markets.²⁾

The demand for elevators is dependent on economic conditions and thus Heikki H. Herlin recognized the need for Kone to expand and diversify. Kone produced its first cranes in 1933 and within a decade the company had a crane factory in Hyvinkää. At the same time also exports of elevators and cranes to Sweden and the Soviet Union began to play a more and more important role in Kone's growth. Heikki H. Herlin was managing director of the company in 1932 - 1964 and chairman of the Board of Directors in 1941 - 1987.³⁾

Pekka Herlin studied economics, not engineering like his father and grandfather. Pekka Herlin came to the family enterprise in 1958 but before that he had already been a member of the Board of Directors since 1954. He was managing director of Kone in 1964 - 1987. When Pekka Herlin began as managing director, Kone was a Finnish domestic company modestly involved in export activities. By the time he relinquished his title to Matti Matinpalo in 1988, Kone boasted more than 100 subsidiaries around the world and manufacturing facilities in some 20 countries.⁴⁾

Pekka Herlin is a visionary, who took Kone into one of the three leading companies worldwide in each of its major business sectors. He was able to do this by concentrating on opening new markets and building up the corporation's infrastructure through modern management techniques. He left product decisions largely to others. The reason for doing this was that Pekka Herlin wanted to change the style in Kone a little bit and thus guarantee that the heritage created by his grandfather Harald would preserve. In other words to Pekka Herlin the internationalization was a way to guarantee that the family enterprise will survive and stay independent. He made for sure the most important transaction of his life in 1968, when he purchased all the elevator activities of Sweden's Asea Graham. This acquisition broadend Kone's home market from tiny Finland to the whole of Scandinavia and was therefore the start for the internationalization of the Finnish elevator industry.⁵⁾

^{1) 1910} Kone 1990, 1990, 2; Simon, 1991, 5

²⁾ Simon, 1991, 5

^{3) 1910} Kone 1990, 1990, 3; Simon, 1991, 5

^{4) 1910} Kone 1990, 1990, 6; Simon, 1991, 5

^{5) 1910} Kone 1990, 1990, 6; Repo, 1991, 29; Simon, 1991, 5

2.3. Pre-stages of Internationalization

1950s	Growth becomes the principle of business Export activities begin to play a prominent role in business strategy
1957	The first foreign daughter company is established
1960s	The competitive edge of products and production is developed to an international level
	Steering and controlling system of the business is created and tested in practice
1970	Management training begins ¹⁾

The severe lack of raw materials and skilled workers as well as construction control slowed down the domestic construction production in postwar years and, due to this, elevator deliveries diminished prominently. Finally, at the beginning of the 1950s construction picked up and the need for elevators grew. Remarkable delivery targets were big central hospitals and public buildings.²⁾

Kone had had export activities of some importance since the 1920s mainly with the Baltic countries and Sweden. In the 1930s elevators were exported also to the Soviet Union. As markets they formed a market area which is typical of the company in the initial stages of its internationalization; a market area which is physically, culturally and institutionally near Finland. Information about the markets was easily achievable and export activities were a natural continuation for the domestic sales. In the mid-1950s Kone had enough capacity to develop its export activities and so it began to orientate into export markets more purposefully. After the war reparations the Soviet Union became a prominent export country for Kone. The export stage continued in Kone over 30 years until the first foreign daughter company AB Konehissar was established in Sweden in 1957. This was a completely new step forward in Kone's internationalization. In a short while AB Konehissar developed into Sweden's second biggest elevator company.³⁰

At the beginning of the 1960s it was time for the elevator factory to move from Sörnäinen to more modern rooms. The building site for a new factory was bought from Hyvinkää, beside the crane factory, and the new elevator factory was completed in 1966. The introduction of a new plant meant a remarkable addition for the production capacity and complete modernization of production technology. A little bit later in 1969 the elevator factory was even broadend.⁴⁾

¹⁾ Kone transparency

^{2) 1910} Kone 1990, 1990, 4-5; Simon, 1991, 10

^{3) 1910} Kone 1990, 1990, 5; Rossi and Santonen, 1990, 40-41

^{4) 1910} Kone 1990, 1990, 6

Whereas in other companies long range planning came into fashion in the 1970s at Kone it had already been introduced in 1966 - without effective planning one cannot have anything! PBC manual was the result of the implementation of modern budgeting and control methods which made operating units profit centers and managers responsible for their units' profitability.¹⁾

Pekka Herlin recognized soon that the rapidly expanding multinational operation required a completely different managerial approach from the one his father and grandfather had used. So, he began to implement scientific management principles and systems. As a result of this an ambitious tripartite training system was launched at the beginning of the 1970s: IMD (International Management Development), RMD (Regional Management Development), SMD (Supervisory Management Development).²⁾

3. REASONS FOR INTERNATIONALIZATION

Internationalization has never been an absolute value for Pekka Herlin. He just realized that if the elevator company wants to do business Finland is a very tiny market for doing that. So in this situation Kone had only three alternatives: bankruptcy, to sell the company to a multinational elevator company or to become multinational. In order to let the family enterprise survive and grow Pekka Herlin chose the last alternative.³⁾

This chapter will try to find an answer to the question why Kone internationalized.

3.1. Independence

If Kone had not internationalized it would still be a small elevator company in remote Finland. But probably it would not be even that since somebody would have done the same as Kone has done to so many companies in other countries: some company would have bought a market share in Finland through Kone. And this, of course, would have been the end of independence. Additionally, the concentration of the elevator business had already begun in the 1960s and therefore it was not so unusual to buy competitor companies. Actually competitor companies were regarded not only as a threat but also as a possibility. The situation was extremely difficult for middlesized elevator companies one of which also Kone was. That is why it did not have any alternatives - it was a well-known fact all over Europe that Kone was an interested buyer.⁴⁾

¹⁾ Kansainvälistyminen tai käpertyminen, 1974, 26; Repo, 1991, 29; Simon, 1991, 31

²⁾ Simon, 1991, 31

³⁾ Repo, 1991, 31; Luostarinen, 1992, lectures

⁴⁾ Niemi, 1973, 14; Pohjola, 1992, 33

3.2. Expanding the Market Area

When the systematic long range planning was launched in Kone Oy in 1966 it was stated that in the long run elevator business cannot be practiced only in the national markets. The most important reason for this was the fact that all the main competitors in the field were already multinational. Big multinational companies are able to transfer the existing know-how from one country to another and to take a more effective advantage of technical and marketing skills than nationally acting companies. If Kone had continued on a national basis it would have competed with its own rules and definitely with worse ones than its main competitors. At that time this would have undoubtedly led to the loss of the competition.¹⁾

At the same time it was realized that the domestic demand for elevators was not growing significantly anymore. But business is not business if it is not growing enough all the time. So, in the elevator business one has to conquer new markets in order to guarantee growth. Additionally, a strong economic growth was estimated to appear in the other market areas, which undoubtedly acted as a pull factor to Kone to broaden its market area. Elevators are hightee products and therefore demand continuous research and development. Calculations in Kone showed that the prevailing capacity could not make it possible in the future to maintain the kind of product development which would guarantee the competitive edge towards the big multinationals. Kone developed as an elevator company primarily producing elevators for a domestic low-rise market. In the 1960s it was time to look for new challenges in the form of high-performance-elevatoring which is essential in skyscrapers. Customers in Finland, however, did not need or want costly high-performance equipment since Finland of the 1960s did not have any mid-rise buildings nor skyscrapers. Not even today could we provide the market for Kone in high-performance elevatoring.²⁾

4. THE STRATEGY OF INTERNATIONALIZATION

Kone had a clear strategy in its internationalization process. The strategy was chosen according to the nature of its product and it was followed consistently. Additionally, some supportive activities were developed to strengthen the clear strategy. This chapter will try to find an answer to the question how Kone internationalized.

4.1. Aqcuisition as a Strategy of Internationalization

Elevator as a product is very technical. The final quality of the elevator can only be found in the elevator well and in addition to installation it demands continuous maintenance. Less than one half of the business is production, the rest comprises installation, maintenance and modernization. These things speak clearly in favour of the creation of the company's own organization in elevator business. There are two different forms of investment policies from which to

¹⁾ Kansainvälistyminen tai käpertyminen, 1974, 26

²⁾ Kansainvälistyminen tai käpertyminen, 1974, 27; Rossi and Santonen, 1990, 43; Simon, 1991, 14

choose when creating one's own organization: greenfield investment and acquisition investment. Since greenfield investment was considered very complicated, time consuming and expensive, Kone chose acquisitions as a strategy of internationalization. The advantages of acquisitions are numerous:

- 1) with an acquisition the mother company gets a readily built, definite market share and customer group without having to fight for them
- 2) the shock in the market is avoided since the market share is not conquered from the competitors
- 3) through acquisition the mother company gets an access to the management staff with knowledge of local conditions
- 4) an acquisition offers established manufacturing skills and ready personnel
- 5) an acquisition enables the daughter company to preserve its local distinctiveness
- 6) in an acquisition heavy start-up costs and problems concerning start-up period are avoided¹⁾

As a result of these things the beginning as well as growth of the activities are rapid.

Pekka Herlin became managing director of Kone Oy in 1964. From the very beginning one of his major tasks was to open new markets to the broadening range of products and production capacity. The first step in the company's internationalization process was taken in spring 1968 when negotiations on the elevator activities of Sweden's Asea began.²⁾

Since Sweden was the closest and the most important export country to Kone Oy Pekka Herlin had observed the situation in Sweden for a long time. The market leader Asea used subcontractors in its elevator business, whereas Kone made itself as much as possible. In those conditions the model of Asea did not work but Kone was the most effective elevator company in the whole of Scandinavia. And regardless of the fact that the total turnover of Asea's elevator business was higher than that of Kone's, Pekka Herlin became convinced till autumn 1967 that the negotiations over the elevator co-operation should get started. So Pekka Herlin decided to invite the head of Asea, Marcus Wallenberg, to negotiations in Finland. From the very beginning Marcus Wallenberg was very pleased with the proposal but the conditions of the deal were something they had to negotiate on. Kone would have wanted the majority of Asea-Graham but Wallenberg was willing to sell only 49%. However, mutual understanding was found and Kone owned 49% of Sweden's and 51% of Norway's and Denmark's companies.³⁾

¹⁾ Haarla, 1979, 9; Zejan, 1988, 35; Luostarinen and Welch, 1990, 165; Simon, 1993, 4; Kone transparency

²⁾ Pohjola, 1992, 15

³⁾ Pohjola, 1992, 14-15

This acquisition, the most important one in Kone's history, was financed with Kone shares and the loan granted by SITRA. Due to the deal Asea became a significant shareholder of Kone Oy with the ownership of 30%. Matti Matinpalo, who was named as managing director of Asea-Graham, soon succeeded in turning the business in the right direction, which convinced Asea about the skills of Kone. So, at the beginning of the next year Wallenberg was ready to sell the rest of the elevator companies to Kone. As a result of the deal Asea's ownership of Kone grew up to 40%. However, after a couple of years Asea was ready to give up totally its ownership in Kone. Consequently, Kone offered to buy the rest of the shares and separated from Asea. This happened in 1973 and in the same year the name of Asea was left away from the names of the daughter companies. Swedish Kone-Asea-Graham became Kone Hissar AB and Norwegian Kone-Asea A/S became Kone Heiser A/S. The name of the Danish company had already earlier been changed to Kone Elevator A/S. Kone was on its own again but significantly bigger and stronger than before the agreement of 1968.¹⁾

As a result of these purchases Asea stopped the production, research and development and export activities of elevators. All these activities were concentrated to Kone's factory in Hyvinkää. In three years the elevator business of Kone Oy, measured by the turnover, tripled compared to 1967. Scandinavia became the home market for the elevator business.²⁾

From these days on the strategy of Kone was to acquire old, well-known but troubled elevator companies which were unprofitable at the time of acquisition. Many of the European middle-sized elevator companies were family enterprises where the continuation of the activities was uncertain. Additionally, the concentration of the elevator business, which did not offer any future for middle-sized companies, had already began. For these reasons it was not hard for Kone to find suitable targets for acquisition. It collected information about the competitors continuously and made careful analyses about them. So, on the basis of these analyses Kone knew well in advance which competitors they wanted to purchase if the possibility for that was provided. Therefore, when a company became for sale they could give their offer much before other potential buyers.³⁾

Some of the companies Kone acquired had long and rich elevator traditions. So, they added many years of know-how to Kone's collective expertise. Others brought significant market share and not only through the mother company but also through daughter companies of their own. Most of the companies acquired by Kone continued to function with the same name than before acquisition: in Kone they think that there is no reason to change the name which has a good reputation in the markets. Additionally, Kone itself was in those days quite unknown as an elevator company.⁴⁾

However, unprofitable daughter companies are useless, if one is not capable of turning them profitable again. Kone is strong in management - thanks to Pekka Herlin - so it could take the advantage of buying troubled companies. Also, Kone had a competitive product, new, modern

¹⁾ Pohjola, 1992, 15-16, 33

²⁾ Pohjola, 1992, 33

³⁾ Laitinen, 1988, 70; Repo, 1991, 30; Luostarinen, 1992, lectures; Pohjola, 1992, 33

⁴⁾ Niemi, 1973, 14; Haarla, 1979, 9; Simon, 1991, 18

production facilities and young, enthusiastic management. So they had all the prerequisites to begin to conquer new markets - even if they had no former experiences about the international business.¹⁾

The internationalization process of the company should follow the step by step strategy ie. the company should start to internationalize from familiar neighbour countries and practise there. This is what Kone did, which is quite unusual for a Finnish company. Practise has shown that Finns have made a lot of mistakes and that is why the profit from the foreign direct investments has not always been especially large. The difficulties are directly comparable to the geographical distance.²⁾

4.2. Supportive Activities

When Pekka Herlin became managing director of Kone in 1964, the budgeting procedures of the company were extremely rough requiring profit centers to estimate income and expenditures for the coming year. There was no long range planning and nobody had not even heard about the monthly reporting of operative results. Under Pekka Herlin's guidance Kone business grew geographicly and quantitatively too large to be handled with rough estimates and so a task force was put together to design a planning, budgeting and control system. In the late 1960s they introduced the LRP and the practise of monthly Rush Reports and monthly Result and Operative Asset Reports. The LRP was meant to serve as a standard against which trends in business development could be compared. The monthly reports were to provide up-to-date feedback of actual performance to be compared to annual budgets. A little bit later, in the early 1970s, the first computer-based reporting system was introduced. This system provided local companies the capacity to meet these new and increased demands for up-to-date reports. At the same time Kone implemented its first International Management Development (IMD) training program to provide top-managers with the know-how to apply these new tools. Professor Igor Ansoff had a significant influence on the above described developments. Additionally, instead of American, British or Central European business books, the models for Kone's new management style were borrowed from such Swedish companies as e.g. Electrolux, Asea and SAS.3)

4.2.1. Planning and Control

Need for planning in a large, corporate-structured enterprise is inevitable; in Kone planning is the basis of management. However, it has to be coordinated in all parts of the organization in order to be efficient. A special planning system brings coordination to the planning and thus guarantees e.g.:

¹⁾ Kansainvälistyminen tai käpertyminen, 1974, 27

²⁾ Mustonen, 1985, 37

³⁾ Simon, 1990, 3-4

- "best possible decisions for the entire corporation
- that objectives and plans are in line with each other
- knowledge of planned operations all over to utilize potential corporate synergies
- that new environmental opportunities and threats can be located and reacted to as early as possible
- best methods of planning are utilized everywhere
- that an up-to-date summary plan can be based on plans of individual units"1)

Actually these facts create the need to have a corporate wide system for the planning and control which in Kone Corporation is called the PBC-system (planning, budgeting and control -system). The father of this system is Arvo Tuononen.²⁾ (figure 4):

	LRP 1-6 years	BUDGETING 1-3 years	CONTROL monthly
Corporate			
Division			
Company			

Figure 4. "The total planning and control processes and the organization hierarchy can be combined in a PBC-matrix", PBC-manual, 1981, 5

Kone PBC-system contains several planning cycles with different aspects to the future. The first column from the left, LRP, includes strategic analyses and the creation of 1-6 years forecasts, objectives, strategies, actions and budgets. LRP is the basis for the running of successful business. The second column, budgeting, contains activities belonging to 1-3 years budgeting and project planning. The budgets are done to create a basis for controlling the operations towards achieved goals. The business planning ie. the LRP and the budgeting have two purposes in Kone: 1) to secure that the assets of Kone Corporation (management, capable personnel and know-how, established businesses etc.) are being used effectively, and 2) to secure that these assets will be developed continuously in order to maintain and improve the competitiveness of the company. The last column stands for short range planning and control. It also provides feedback information for the following longer term planning tasks. The rows represent the organizational levels; the first row corporate level activities, the second divisional activities or resource management centers and the third companies or profit centers.³⁾

¹⁾ PBC manual, 1981, 2; Kone transparency

²⁾ PBC manual, 1981, 2; Repo, 1991, 31

³⁾ PBC manual, 1981, 2, 5, 8

The main feature in PBC-system is that all three processes - LRP, budgeting and control - are carried out all over the corporation once a year. In practise, this means that LRP and budgeting happen once a year and control every month. It must be stressed that these three are linked and even if the process is continuous it can be said that

- "LRP forms the basis
- planning concerning the 1-3 first years is continued in the budgeting process
- control is based on the accepted budgets
- the following year the situation is reviewed as part of the LRP process and so on"1)

Every manager in Kone has the responsibility for planning and control of his own activity. Thus there are no special "planning departments" in the corporation to perform planning tasks on behalf of other persons. However, the coordinating nature of PBC-system demands that within each entity there must be one person who is responsible for systematic planning and control to be carried out according to corporatewide principles and schedules. This responsibility lies usually on the chief executive. Additionally, each entity must be familiar with corporate principles and methods of planning. Also, certain practical coordination in planning and control matters is needed within each company as well as between companies and divisions. The responsibility for these things falls upon the controller.²⁾

4.2.2. Management Education

As mentioned earlier Pekka Herlin recognized soon after becoming managing director of Kone that the rapidly expanding multinational operation required a completely different managerial approach from the one his father and grandfather had used. So, he began to implement scientific management principles and systems. As a result of this an ambitious tripartite training system was launched at the beginning of the 1970s: IMD (International Management Development), RMD (Regional Management Development), SMD (Supervisory Management Development).³⁾

Corporate Management Development within Kone Corporation is based on the assumption that trained, experienced managers are the critical resourse to the survival and future development of an organization. Purpose of this training programme is defined in five sentences:

- "to give general managers, potential managers and functional specialists from all parts of the corporation an opportunity to broaden their perspective on management of functional areas other than their own
- to introduce managers and functional specialists to the latest developments in concepts and methods of management in order to improve their professional skills and personal capabilities

¹⁾ PBC manual, 1981, 5-6

²⁾ PBC manual, 1981, 4

³⁾ Simon, 1991, 31

- to generate a critical mass of managerial competence that will enhance a continuous and coordinated development of the companies and the corporation
- to guarantee the achievement of business objectives by increasing the interaction between various functions as well as the interaction between local units and the corporation as a whole
- to improve the efficiency and capabilities of managers in their present positions"1)

The content of these three programmes is defined according to the training needs at different managerial levels. Although they vary in emphasis and instructional methods, each of them covers a set of common topics and concepts.²⁾

The participants of International Management Development programme are senior line managers and functional specialists from different Kone companies. The key characteristic of this programme is its international focus in design and content as well as the fact that its participants come from different countries. IMD programme takes the advantage of Kone's knowledge in international business and of extensive teaching experience of several faculties from the leading European and US business schools. Kone line and staff specialists act as teachers and the teaching language is English. The structure of the programme consists of a series of seminars the topic areas of which are: 1) General Management, 2) Accounting and Managerial Finance, 3) Marketing, 4) Personnel and Organizational Behaviour, 5) Management Techniques, 6) Engineering and Production. Each seminar lasts about one week and since there are usually two seminars per year the whole programme will be carried out in three, four years.³⁾

The participants of the Regional Management Development programme are people between supervisors and staff directors i.e. all kinds of middle managers. In the RMD programme the management issues are approached locally regarding the business environment and the management culture of each region. Although the cultural differences are taken into account continuously, the participants of various seminars are also provided with the up-to-date knowledge of more universal management theory and concepts. Also the main characteristics of the Kone management philosophy will be discussed. Generally the teachers of RMD programme come from within the corporation and the teaching language is the language of each region. The programme consists of seven seminars: 1) General Management, 2) Problem Solving, 3) Personnel Administration, 4) Organization and Leadership, 5) Accounting and Finance, 6) Marketing, 7) Technology. Each seminar takes about three days.⁴⁾

The participants of Supervisory Management Development programme are supervisors who work with and through non-management employees in the field, factory or office. The SMD programme aims to teach the supervisors the management thinking and methods of management. The approach is highly practical and local with Kone staff providing the instruction.

¹⁾ Corporate Management Development booklet

²⁾ Corporate Management Development booklet

³⁾ Corporate Management Development booklet

⁴⁾ Corporate Management Development booklet

The whole programme covers five topic areas which are: 1) General Management, 2) Leadership and Personnel Administration, 3) Production, 4) Marketing, 5) Planning and Decision Making.¹⁾

Nowadays the Corporate Management Development system with its IMD, RMD and SMD programmes does not exist anymore. Business today is a global contest between the corporations where the competence of management creates and ensures competitive advantage for companies. Kone Corporation has long seen systematic management education as one of the principal means in the development of management and has therefore been actively planning and organizing management education programmes for more than 20 years. In order to respond to today's challenges, the prevailing management education approach of Kone was thoroughy reviewed and new principles and guidelines were designed. The new Corporate Management Education System is called "Kone Manager 2000" and it was launched in 1991.²⁾

5. FACTORS INFLUENCING THE SUCCESS

It has been said that Kone Corporation is not a typical Finnish company. It is doing well.³⁾ This chapter will try to find an answer to the question why Kone is doing that well and how it could internationalize so effectively and successfully.

5.1. Business Philosophy

Kone is the first Finnish multinational company. People in Kone, however, do not call the structure of their company multinational but multilocal. The term multilocal means that the focal point for Kone activities is the local market area, not the international headquarters. And this, of course, has led to a considerable autonomy of local companies. In practise locality means that subsidiaries are free to develop some of their own products, to have their own distinctive maintenance contracts, and to use management methods and procedures entirely of their own. This kind of autonomy of subsidiaries and their local distinctiveness are considered truly important in Kone's business philosophy. The integration of the acquisition is, however, inevitable. Kone's way to do it without destroying the local distinctiveness is to replace the managing director of the acquired company with another local person, send the controller from the headquarters but let the marketing director stay. The integration of the acquired company with another local person, send the controller from the headquarters but let the marketing director stay.

Since Pekka Herlin is an economist he looks just at figures and thinks about the strategy - all that matters is Row 80, profitability. Thus, one of the main characteristics of the business philosophy in Kone is that as long as the budget is carried out the headquarters keep their hands off about the daughters and let them choose their own methods to meet the performance standards expected of them. In other words, even if the plans of action and objectives are set in co-

¹⁾ Corporate Management Development booklet

²⁾ Kone Manager 2000 booklet

³⁾ Repo, 1992, 15

⁴⁾ Helve, 1975, 29; Simon, 1990, 3-4

⁵⁾ Repo, 1991, 31

operation with the headquarters, the local management bears the responsibility for its Row 80. Control, however, is extremely tight. Row 80 is wiped clean to "0" each January and thus the managers are judged on their current performance, not on what they have inherited from the past. They are also given the tools to deal with their business environment and education in how to apply those tools effectively. The activities in Kone Corporation are decentralized and far delegated; the company is like the "Community of Independent Companies". 1)

The planning of business begins from the local units which are supported by the international resources: technical support ie. R & D and component production, education, marketing and financial support. These international resources support the target of achieving the local superiority. In Kone they think that the success is not due to the international position of the multinational organization but to the succeeding of hundreds of local units. Therefore the personnel of Kone Corporation working in different countries is the local people of each country, sometimes even school friends of customers. They speak the same language with the customers, know the local business culture and are able to react quickly to the changes in the market.²⁾

Personal contacts are extremely important in Kone. Matti Matinpalo was general manager of the elevator division during "the hottest" time of its internationalization process from 1971 to 1986 and he is considered the father of the kind of personal approach, which still prevails in Kone. He used to say: "Go there, talk with people and internationalize!" The comparison between the management styles of Kone and Westinghouse (the European activities of which Kone acquired in 1975) clarifies what is so special about the approach of Kone. After the acquisition of Westinghouse Matinpalo worked for long time more in Paris and Liège than in Helsinki. The existing problems were solved by talking face-to-face, which was a completely new way of doing that for former Westinghouse workers. The Westinghouse management was much more distant, they thought. After the integration of the company Matti Matinpalo also visited the company every month to go over rush reports whereas American management came to Europe only once a year.³⁾

In Kone, they believe in teamwork. Thus, meetings hold a prominent place in Kone culture. To former Westinghouse workers meetings were a real innovation and an extremely good one, they thought. They enjoyed the fact that people got together and got to know each other and not just at the top management level but at many different levels. The former managing director of Kone Belgium thinks that it is especially the human contact that enables one to keep up with what is going on in different parts of the organization. And since people travel a lot in Kone, they have learned and will learn whom to contact when they are in need of something. The former managing director of Kone Belgium compared his years in Westinghouse to the years in Kone with the following words:" In my years with Westinghouse, it never occurred to me to pick up the phone and call someone in the United States about the problem. We did not even have meetings between Westinghouse's French and Belgian companies. But it was not long before each of us had a Kone network of his own. I think this is a Kone trademark."⁴⁾

¹⁾ Simon, 1990, 4; Repo, 1991, 29; Kone transparency

²⁾ Simon, 1993, 4; Kone transparencies

³⁾ Simon, 1991, 6; Pohjola, 1992, 36-37; Simon, 1992, 9; Kone transparency

⁴⁾ Simon, 1991, 6; Pohjola, 1992, 36-37; Simon, 1992, 9; Kone transparency

5.2. The Development of the Strategy of International Activities

Kone's field of business is narrow. It concentrates on vertical transportation and material handling being one of the market leaders in its fields. The main rule here is that one should not go to the field where one has nothing to give but concentrate on one's own area of special knowhow. This is what Kone has done and how it has succeeded.¹⁾

Now when the internationalization process of Kone is successfully over the objective is to develop more to the direction of service company instead of production company. Kone has been heavily production oriented like the whole Finnish industry. However, the respect for product has fallen. Earlier the problem was who is able to produce a good, the product was valuable, not service. Nowadays it is the opposite: work and service cost a lot of money but the production of goods gets more simple and thus cheaper.²⁾

Kone has two types of competitors: international ones and local ones. Service orientation is inevitable especially due to the local competitors. Local competitors know their markets like their own pockets and take good care of them. If big multinationals are not able to do the same, they will lose the game. The slogan of the service company Kone is "Best in Town" which points out the significance of better local performance since it is not important that the company is big and international if it is not locally remarkable and well represented. The way the people act in the field is of utmost importance: in order to maintain the competitiveness the expectations of customer should always be exceeded a little bit.³⁾

As was typical in most engineering-driven organizations, also in Kone the approach to quality was not taken that seriously. However, when the organization began to consider more carefully the customer requirements, the attitudes towards the quality needed to be changed. It was already at the beginning of the 1990s, when each of the various Kone business sector organizations was going through some kind of quality improvement process. The new international quality standards such as ISO 9000 even accelerated Kone's transformation into the quality company. This kind of transformation required also considerable changes in Kone's corporate culture. Earlier the focus of corporate culture was on technological and administrative values. With the Total Quality Management those values were replaced by concern for such human issues as job satisfaction, personnel development, and individual initiative.⁴⁾

TQM - Total Quality Management means broad kind of thinking, open communication, the ability to react quickly to changes, willingness to do every job in the right way from the very beginning and commitment to the customer service. Nowadays the customer satisfaction and the development of Total Quality Management are of utmost importance since those are the decisive factors of future in Kone's struggle to maintain its leading position in international markets. Kone's main fields of business are very sensitive to the fluctuations in the economic

¹⁾ Kone Annual Report, 1992, 6; Repo, 1992, 17

²⁾ Holtari, 1990, 24

³⁾ Holtari, 1990, 22, 24

⁴⁾ Simon, 1991, 31

situation. The continuous strive for the better total quality is the best way of preserving the volumes and balancing the influences of business fluctuation.¹⁾

Since Kone emphasizes heavily the importance of service and customer orientation somebody may think that the company is likely to lose its identity as a production company. This is not obvious because Kone's background is both historically and culturally production oriented. The fact is, however, that the nature of production in Kone Corporation is changing.²⁾

5.3. Other Factors Influencing the Success

Besides Kone's rewarding business philosophy and orientation development with the changing world there are also certain other factors which have had a positive impact on Kone's success.

First of all, Kone began its internationalization process early enough. Since it is considered to begin from the year 1968, when Kone bought the elevator business of Sweden's Asea, it happened more than 25 years ago. Additionally, Kone had a good product which is one of the most crucial things for successful internationalization. Kone is the first Finnish company, which went international and later multinational. Worldwidely speaking, however, this was extremely late; even the first Swedish companies internationalized about 50 years earlier than Finnish ones.³⁾

As already discussed in chapter 3.1. Acquisition as a Strategy of Internationalization, the internationalization process of the company should follow the step by step strategy ie. the company should start to internationalize from familiar neighbour countries and practise there. This strategy, however, has not been favored by Finnish companies. Accordingly, it is no wonder that Finns have made a lot of mistakes and the profit from the foreign direct investments has usually been miserable: the difficulties are directly comparable to the geographical distance. Nowadays Kone is not a typical Finnish company, it is doing well. Kone was not a typical Finnish company in those days either, it chose the step by step strategy. The people in Kone clearly understood the connection between cultural differences and geographical distance and the fact that going too far too soon may end up to a disaster.⁴⁾

One of the most decisive success factors in Kone was its way of implementing its acquisition strategy. It collected information continuously about the competitors making careful analyses about them. On the basis of these analyses Kone could plan well in advance which competitors they were interested in if the possibility for acquiring them was provided. Consequently, when a company became for sale they could be the first one to give their offer. In short Kone's way of implementing its acquisition strategy may be summarized in the following steps: 1) careful analyses, 2) effective planning, 3) clear strategy, 4) rapid decision making, 5) fast moves.

¹⁾ Simon, 1993, 2, 4, 6

²⁾ Simon, 1993, 6

³⁾ Rantanen, 1982, 73; Luostarinen, lectures, 1992; Pohjola, 1992, 33; Kone transparency

⁴⁾ Mustonen, 1985, 37

⁵⁾ Repo, 1991, 30; Luostarinen, 1992, lectures

Even if Pekka Herlin nowadays has a fortune which may be count in billions of marks his lifestyle is not to spend money. Also Kone, the main owner of which he is, has always led a modest life; it is one of the most "Spartan" companies in Finland. All the money of Kone has always been put into the development of business or acquisitions, it has no additional property like landed property and real estates. Also the profits from the successful Eastern trade in the 1970s and 1980s were used reasonably in order to strengthen the positions in the West.¹⁾

The need for planning and control is inevitable in a large corporation. In Kone Corporation there is a corporate wide system for both planning and control which is called the PBC-system. It was created in the late 1960s just before the beginning of Kone's intensive internationalization process. Due to the excellent timing of PBC-system's establishment, it is one of the most important factors which has influenced Kone's success in its internationalization process.²⁾

The war reparations imposed by the Soviet Union in 1944 by the resolution of the Continuation War was a bitter pill to swallow for Finns not only at the time of payment but even today. The fact is, however, that the imposed war reparations were, if not good luck at least something valuable to Kone's further development. The reason for this is that the quantities and demands of Soviets were on such a high level that Kone was compelled to develop its technology and expand its factories in order to be able to respond to the demands. Kone's task was to deliver 100 freight elevators, 200 cranes and 72 electric hoists without forgetting to pay attention to the demands of its other customers as well. The smallest cranes ordered by the Soviets were as big or bigger than any Kone had ever produced. The last part of the payment was delivered 24.8.1952.³⁾

5.4. PH and the Strong Ownership

Even if the success factors of Kone's internationalization are numerous, the influence of Pekka Herlin should not be left without consideration. The Herlin family has always had a strong ownership of Kone, which certainly is among the most important reasons for the success of the company: the chosen strategy is followed since the owners have a clear control over the company.⁴⁾

Pekka Herlin became managing director of Kone Oy in 1964 - in his own opinion a little bit against his own will. He would have preferred to be a farmer and enjoy life with his artist friends. Due to Pekka Herlin's interest in farming, he has always been very far-sighted as manager. Accordingly, at the beginning of his leadership he gathered young people who were 20 years ahead of their time to work for his company. Many of them were his school friends and many of them still work for Kone. Old and loyal workers mean a lot to Pekka Herlin - even that much that at the top of the company there has not been any space for younger newcomers.

¹⁾ Repo, 1991, 31; Repo, 1992, 15; Kone transparency

²⁾ PBC manual, 1981, 2; Kone transparencies

³⁾ Simon, 1991, 10; Pohjola, 1992, 11

⁴⁾ Pennanen, 1992, 27

One of the greatest and most yielding far-sighted ideas of Pekka Herlin has been the narrow strategy chosen by Kone in the 1960s.¹⁾

Pekka Herlin has an extremely strong desire to win and he does everything he can in order to be the best - he even uses conflicts as strength developing catalysators for the happenings inside the organization. Additionally, he has the instinct of an animal, an ability to smell the danger in wind, says some friend of his. Pekka Herlin also has an ability to manage people. As a strong personality, however, he is not authoritarian but likes to discuss and listen. He is capable of delegating and never sticks to minor details but he has given to many peculiar persons the kind of space they have needed in order to be happy in their works in Kone.²⁾

6. THE MOST SIGNIFICANT NEW SUBSIDIARIES IN THE 60S - 80S AND THEIR INFLUENCE IN BUSINESS

In 1968, when Kone made its first acquisition, it was among the first Finnish companies which made foreign direct investments.³⁾ The market area was Scandinavia with which Kone was already familiar due to exporting activities. The acquisition target was the Scandinavian elevator business of Sweden's Asea Graham which considered Swedish AB Asea-Graham, Norwegian Asea-Graham Norsk A/S and Danish Thrige-Titan Elevator A/S. The deal was quite unusual since a larger company was taken over by a smaller one and so the acquired operations immediately trebled Kone's annual elevator sales.⁴⁾

After Asea-Graham purchase Kone began an agressive acquisition program that would take it first into the larger markets of Europe and then to more distant continents. In 1969 Kone acquired the minority share in a Spanish factory, Eguren S.A. The next acquisition was the purchase of Austrian Sowitch AG in 1970. Sowitch AG was found in 1914 and at the time of purchase its sales was FIM 15 million and the number of personnel 506 employees. The French elevator business of Italy's Falconi was bought in 1972. Financially Falconi France was not considered a big investment but a launch to new and unknown market area, France. The new company, which was named Kone Ascenseurs, concentrated in sales, installation and maintenance. ⁵⁾

In 1973 Kone acquired an access to the German markets. The name of the company was Hävemeier & Sander KG and it was situated in Hannover. The company was found in 1873, its sales was FIM 53,7 million and the number of employees 585 in 1973. Hävemeier & Sander KG had production plants in Hannover and both sales and maintenance organizations in several German cities. In 1974 a small U.K. firm, Whitbread Lifts Ltd joined Kone.

¹⁾ Repo, 1991, 29, 31; Lindstedt, 1992, 37-38

²⁾ Repo, 1991, 29, 31; Repo, 1992, 15-17

³⁾ Luostarinen, lectures, 1992

^{4) 1910} Kone 1990, 1990, 5; Simon, 1991, 18

⁵⁾ Rossi and Santonen, 1990, 48; Simon, 1991, 17

⁶⁾ Kone Annual Report 1973, 7

The sales of the company was FIM 3,3 million and the number of personnel 95 in 1974. Its business was mainly maintenance.¹⁾

However, these transactions of early 70's paled in comparison to the acquisition announced at the beginning of the year 1975: Kone had acquired the European elevator and escalator business of American Westinghouse Electric Corporation and its subsidiary Westinghouse Electric S.A. The purchase considered both the French Société Française des Ascenseurs Westinghouse and the Belgian Westinghouse Electric Corporation S.A. The sales of Société Française des Ascenseurs Westinghouse was FIM 205 million and the personnel 2 589 at the time of purchase. The company manufactured and marketed elevators mainly in France having production plants in Nice and Châteauroux. The sales of the Belgian company, Westinghouse Electric Corporation S.A., was FIM 94 million and the personnel 969 in 1974. The headquarters and production plants were situated in Liège. In addition to Belgium, the company marketed elevators to several other countries.²⁾ This acquisition was the biggest transaction, in terms of sales, during Kone's acquisition process in 60s - 80s. It is easy to understand its significance when knowing that in 1975 the sales coming from acquired Westinghouse organization were as much as 41.3% of Kone Elevators' total sales.³⁾ In 1975 Kone bought also the majority share in a Spanish factory, Eguren-Kone S.A. in which it already had a minority share.4)

In 1976 Kone moved on to a new continent buying the Brasilian Elevadores Induco Ltda. Kone had difficulties in Brazil from the very beginning. One of the biggest was the language but also the tight Brasilian import restrictions were a problem. According to these restrictions all the components had to be made in Brazil which demanded extremely many-sided production readiness of the factory.⁵⁾ The other country where Kone had difficulties was Spain. The main reason for problems there were the environmental factors like unrest in Spanish Basque area where Eguren-Kone S.A. was situated. Consequently, Kone sold its majority share of Eguren-Kone S.A. in 1977 (and the minority share later in 1980). The acquisition of Eguren-Kone S.A. is the only total failure of Kone's acquisitions.⁶⁾

In 1979 Kone broadened considerably its market area acquiring the British elevator company Marryat & Scott Ltd. The company had subsidiaries or associated companies in e.g. Saudi Arabia, Egypt, Kenya, Hong Kong and Singapore. In 1980 Kone did not make any significant acquisitions and a year later it made only one minor acquisition in Norway. The name of the company was Fortuna A/S and it was the oldest elevator company in Norway. By this acquisition the position of Kone Elevators in Norway was brought to the same level than in other Scandinavian countries. (8)

¹⁾ Kone Annual Report 1974, 9

²⁾ Kone Annual Report 1974, 9

³⁾ Rossi and Santonen, 1990, 55

⁴⁾ Kone Annual Report 1975, 11

⁵⁾ Rossi and Santonen, 1990, 62

⁶⁾ Kone Annual Report 1979, 17; Rossi and Santonen, 1990, 63-64

⁷⁾ Kone Annual Report 1979, 17

⁸⁾ Rossi and Santonen, 1990, 66-67

Kone's first acquisition in North America took place in 1982 when Kone purchased the American Armor Elevator Company Inc. In 1931 found Armor was not a new acquintance for Kone since Kone had already in 1975 been interested in buying the company. In that year, however, financially troubled Armor was bought by its own workers. Armor's annual sales were FIM 200 million and it had 750 employees at the time of purchase. Its headquarters and factory were situated in Louisville, Kentucky. The acquisition of Armor, which lauched Kone's activities in North America, was followed by the purchase of Canadian F.X. Drolet Inc. in 1984. Its territory was mainly the province of Quebec and the headquarters were in Quebec City. The annual sales of the company were over FIM 19.8 million and the personnel 50 employees.¹⁾ In 1985 Kone purchased 51% of the Canadian Montgomery Elevator Co. Limited the headquarters of which were in Toronto. At the same time Drolet Elevator Inc. was transferred under ownership of Montgomery Elevator Co. Limited. Alltogether the annual sales of elevator activities in Canada are FIM 190 million and number of personnel 400.²⁾

In 1985 Kone bought a new, German elevator company also. The name of the company was Bauer Aufzugsfabrik GmbH & Co. and its main market was southern Germany having activities in other parts of Germany as well. In Sweden Bauer Aufzugsfabrik GmbH & Co. operated through its subsidiary. The sales of the company were FIM 180 million and the personnel totaled around 600. However, the biggest acquisition during 1985 was the purchase of Italian Sabiem S.p.A. The company had a good position in the Italian elevator market, export activities to several countries and subsidiaries e.g. in France, Venezuela and Mexico. The annual sales of the company were FIM 300 million and the number of personnel around 1300. To Kone Elevators the acquisition of Sabiem meant the opening of the new market area, Italy.³⁾

In 1986 Kone purchased an English company, Biddle Holdings PLC, which owned an elevator company called Bennie Lifts Ltd. The annual sales of the company were FIM 100 million and the number of the personnel 450. In 1987 Kone broadened its market share in Italy acquiring the Italian FIAM Partecipazione S.p.A. The annual sales of the company were FIM 350 million and it had 900 employees. The new Italian company was planned to co-operate with the earlier acquired Sabiem S.p.A. Together these two companies formed the leading elevator company in the Italian market.⁴⁾

In 1988 Kone acquired American Flynn-Hill Elevator Corporation the territory of which is New York. The annual sales of the company were FIM 120 million and the number of personnel 340.⁵⁾ The most significant acquisition in 1989 was the purchase of Dutch Starlift B.V. which was a leading elevator company in Netherlands. Its annual sales were FIM 250 million and the number of personnel 700. In the same year Kone Elevators acquired a couple of smaller, mainly maintenance services selling elevator companies. One of them was English Leonard Lifts Ltd. the territory of which is London. Its sales were FIM 40 million.⁶⁾

¹⁾ Kone Annual Report 1981, 11; Kone Annual Report 1984, 9; Rossi and Santonen, 1990, 68

²⁾ Kone Annual Report 1985,11

³⁾ Kone Annual Report 1985, 11

⁴⁾ Kone Annual Report 1986, 9; Rossi and Santonen, 1990, 77

⁵⁾ Kone Annual Report 1988, 9

⁶⁾ Kone Annual Report 1989, 9

In 1990 Kone made several acquisitions the majority of which were relatively small. The most significant of them was in Australia and New Zealand functioning EPL-Kone. Earlier Kone owned 30% of the company but by this purchase its ownership rose up to 100%. EPL-Kone is the leading elevator company in Australia, its annual sales are FIM 500 million and the number of personnel 1250. In the same year Kone bought a new company in Italy also, Bassetti Elevatori S.p.A. Its annual sales were FIM 65 million and the number of personnel 120.¹⁾

In 1991, 1992 and 1993 Kone did not do any significant acquisitions.

7. CONCLUSIONS

This paper was based on searching for answers to three different questions concerning Kone's internationalization: 1) why did Kone internationalize, 2) how did Kone internationalize and 3) what factors influenced Kone's success.

The first question "Why did Kone internationalize?" is answered in chapter 3., Reasons For Internationalization, considering two separate reasons, independence and expanding the market area.

Internationalization was never an absolute value for Pekka Herlin. He simply realized that if the elevator company wants to do business, Finland is a very tiny market for doing that. So, in this situation Kone had only three alternatives: bankruptcy, to sell the company to a multinational elevator company or to become multinational and thus expand its market area and save its independency. In order to let the family enterprise survive and grow Pekka Herlin chose the last alternative.

The second question "How did Kone internationalize?" is answered in chapter 4., The Strategy of Internationalization. Kone had a clear strategy in its internationalization process. The strategy was chosen according to the nature of its product and it was followed consistently. Additionally, some supportive activities were developed to strengthen the clear strategy.

Less than one half of Kone's business is production, the rest comprises installation, maintenance and modernization. These things speak clearly in favour of the creation of the company's own organization in elevator business when internationalizing its activities. Since greenfield investment was considered very complicated, time consuming and expensive, Kone chose acquisitions as a strategy of internationalization. With an acquisition the mother company also gets a readily built, definite market share and customer group as well as an access to the management staff with knowledge of local conditions. All these things are especially important in elevator business due to the considerable share of maintenance and modernization activities.

Kone Annual Report 1990, 9

Since under Pekka Herlin's guidance Kone business grew geographicly and quantitatively too large to be handled with rough estimates, the planning, budgeting and control system was designed. In the late 1960s also the LRP and the practice of monthly Rush Reports and Monthly Result and Operative Asset Reports were introduced. A little bit later, in the early 1970s, the first computer-based reporting system was introduced. At the same time Kone implemented its first International Management Development (IMD) training program to provide topmanagers with the know-how to apply these new tools. It was soon followed by RMD (Regional Management Development), and SMD (Supervisory Management Development).

The third question "What factors influenced Kone's success?" is answered in chapter 5., Factors Influencing the Success. Naturally all the things mentioned in the previous chapter has to be considered as basis for Kone's success: well-chosen strategy of internationalization and reasonable supportive activities, planning and control as well as management education. These things alone, however, could not guarantee the success. Additionally, Kone had/has a good business philosophy and it was/is constantly developing its strategy of international activities. Also luck, coincidence and the three Herlin family members, especially Pekka Herlin, had their roles.

Kone is a multinational company. People in Kone, however, do not call the structure of their company multinational but multilocal. The term multilocal means that the focal point for Kone activities is the local market area, not the international headquarters. This has led to a considerable autonomy of local companies. Autonomy, on its part, is connected with the fact that all that matters is profitability. Thus, one of the main characteristics of the business philosophy in Kone is that as long as the budget is carried out the headquarters keep their hands off about the daughters and let them choose their own methods to meet the performance standards expected of them. Control, however, is extremely tight.

Kone's field of business is narrow. It concentrates on vertical transportation and material handling being one of the market leaders in its fields. The main rule here is that one should not go to the field where one has nothing to give but concentrate on one's own area of special know-how. This is what Kone has done and how it has succeeded. When the internationalization process of Kone was/is successfully over the objective was/is to develop more to the direction of service company instead of production company. Service orientation is inevitable especially due to the local competitors. Local competitors know their markets like their own pockets and take good care of them. If big multinationals are not able to do the same, they will lose the game.

As was typical in most engineering-driven organizations, also in Kone the approach to quality was not taken that seriously. However, when the organization began to consider more carefully the customer requirements, the attitudes towards the quality needed to be changed. This kind of transformation required also considerable changes in Kone's corporate culture. The earlier focus of corporate culture, technological and administrative values, were replaced with the Total Quality Management by concern for such human issues as job satisfaction, personnel development, and individual initiative.

Kone began its internationalization process early enough, more than 25 years ago. It had a good product which is one of the most crucial things for successful internationalization. Also, Kone followed the step by step strategy ie. started to internationalize from familiar neighbour

countries. Additionally, Kone's way of implementing its acquisition strategy was well-established. It collected information continuously about the competitors making careful analyses about them. On the basis of these analyses Kone could plan well in advance which competitors they were interested in if the possibility for acquiring them was provided. Consequently, when a company became for sale they could be the first one to give their offer.

The war reparations imposed by the Soviet Union in 1944 was a bitter pill to swallow for Finns. The fact is, however, that the imposed war reparations were, if not good luck at least something valuable to Kone's further development. The reason for this is that the quantities and demands of Soviets were on such a high level that Kone was compelled to develop its technology and expand its factories in order to be able to respond to the demands. Under these circumstances the family enterprise managed to develop the technological strength that later enabled it to succeed in the competition on world markets.

Three generations of Herlins have guided Kone through the three major stages of its development and growth to date. Harald, Heikki and Pekka Herlin have each been the right man in the right place to make decisions which in prevailing situations were inevitable in order to let Kone Oy survive, grow and develop. Additionally, the Herlin family has always had a strong ownership of Kone, which certainly is among the most important reasons for the success of the company: the chosen strategy is followed since the owners have a clear control over the company.

LIST OF REFERENCES

Annual Reports of Kone Corporation 1973-75, 1979-81, 1984-86, 1988-90, 1992-93

Corporate Management Development within Kone Corporation Purpose, Design and Content of Programmes

Haarla, Pekka (1979)

Kone analysoi tulevaisuuden vaihtoehdot: Pakko vei uusille markkina-alueille. Kauppalehti, 29.10.1979, 9

Haarla, Pekka (1979)

Edeltäjän virheistä otettu tarkoin opiksi. Kauppalehti, 30.10.1979, 9

Helve, Lauri (1975)

Kone Oy yrittää Euroopan ulkopuolelle: Suurkorjaukset edessä uusilla hissitehtailla. Helsingin Sanomat, 14.2.1975, 29

Holtari, Timo (1990)

Kone muuttuu palvelutaloksi: Best in Town. Markkinointiviestintä, No. 3, 22-24

Kansainvälistyminen tai käpertyminen (1974) Yritystalous, No. 12, 26-29

1910 Kone 1990 (1990)

Kone Manager 2000 The New Management Education System

Kone transparencies Company presentation transparencies

Laitinen, Aarno (1988)

Matti Matinpalo, herra Hissi. Fakta, No. 9, 69-71

Lindstedt, Risto (1992)

Isä, poika ja Kone: suomalaisia sukuja. Suomen Kuvalehti, No. 14, 32-38

Luostarinen, Reijo (1992)

Lectures in Helsinki School of Economics and Business Administration: Internationalization of the firm

Luostarinen, Reijo and Lawrence Welch (1990)

International business operations. Kyriiri Oy, Helsinki

Mustonen, Anneli (1985)

Hissillä maailman ympäri. Mark, No. 8, 36-38

Niemi, Reijo (1973)

Kone kasvanut kansainväliseksi yrityksiä ostamalla. Talouselämä, No. 37, 12-15

PBC manual (1981) Manual concerning planning, budgeting and control in Kone Corporation

Pennanen, Risto (1992) Kone tähyää Venäjälle. Fakta, No. 4, 25-27

Pohjola, Pekka (1992)

Kone-uutiset, erikoisjulkaisu: 1942-1992

Rantanen, Esko (1982)

Koneen vanha resepti: Tuttu tuote, suuri markkinaosuus. Talouselämä, No. 12, 72-73

Repo, Eljas (1991)

Suomalainen karhu. Kauppalehti Optio, No. 12, 28-31

Repo, Elias (1992)

Gerhard Wendt, mies Herlinien varjossa. Kauppalehti Optio, No. 20, 14-18

Rossi, Kristiina and Mari Santonen (1990)

Kansainvälistymisprosessi ja sen kuvaamiseen soveltuvat lukusarjat - esimerkkiyrityksenä Kone Oy, hissiryhmä. Markkinoinnin pro gradu -tutkielma. Turun Kauppakorkeakoulu, Turku

Simon, John (1990)

Kone Culture. Kone News & Views, No. 4, 2-4

Simon, John (1990)

Kone Culture. Kone News & Views, No. 2, 3-4

Simon, John (1991)

Kone History 1910-1990. Kone News & Views, No. 1, Special Issue

Simon, John (1991)

Kone Culture. Kone News & Views, No. 2, 4-6

Simon, John (1992)

René Hernotte: "Most of all, I am proud of our success". Kone News & Views, No. 2, 8-9

Simon, John (1993)

Koneposti

Zejan, Mario Carlos (1988)

Studies in the behaviour of Swedish multinationals. Ekonomiska studier utgivna av Nationalekonomiska institutionen 23, Handelshögskolan vid Göteborgs universitet. Kompendietryckeriet, Kållered

Interviews: Pekka Pohjola, head of the information department, Kone Oy, 18.6. 1993, Helsinki

Arvo Tuononen, retired administrative director, Kone Oy, 16.9. 1993, Vantaa

Ari Himma, management development manager, Kone Oy, 28.10. 1993, Helsinki

Pennanen, Risto (1992) Kone tähyää Venäjälle. Fakta, No. 4, 25-27

Pohjola, Pekka (1992)

Kone-uutiset, erikoisjulkaisu: 1942-1992

Rantanen, Esko (1982)

Koneen vanha resepti: Tuttu tuote, suuri markkinaosuus. Talouselämä, No. 12, 72-73

Repo, Eljas (1991)

Suomalainen karhu. Kauppalehti Optio, No. 12, 28-31

Repo, Eljas (1992)

Gerhard Wendt, mies Herlinien varjossa. Kauppalehti Optio, No. 20, 14-18

Rossi, Kristiina and Mari Santonen (1990)

Kansainvälistymisprosessi ja sen kuvaamiseen soveltuvat lukusarjat - esimerkkiyrityksenä Kone Oy, hissiryhmä. Markkinoinnin pro gradu -tutkielma. Turun Kauppakorkeakoulu, Turku

Simon, John (1990)

Kone Culture. Kone News & Views, No. 4, 2-4

Simon, John (1990)

Kone Culture. Kone News & Views, No. 2, 3-4

Simon, John (1991)

Kone History 1910-1990. Kone News & Views, No. 1, Special Issue

Simon, John (1991)

Kone Culture. Kone News & Views, No. 2, 4-6

Simon, John (1992)

René Hernotte: "Most of all, I am proud of our success". Kone News & Views, No. 2, 8-9

Simon, John (1993)

Koneposti

Zejan, Mario Carlos (1988)

Studies in the behaviour of Swedish multinationals. Ekonomiska studier utgivna av Nationalekonomiska institutionen 23, Handelshögskolan vid Göteborgs universitet. Kompendietryckeriet, Kållered

Interviews: Pekka Pohjola, head of the information department, Kone Oy, 18.6. 1993, Helsinki

Arvo Tuononen, retired administrative director, Kone Oy, 16.9. 1993, Vantaa

Ari Himma, management development manager, Kone Oy, 28.10. 1993, Helsinki

APPENDIX: Structure of Kone Group's Turnover and Personnel, years 1969-1993

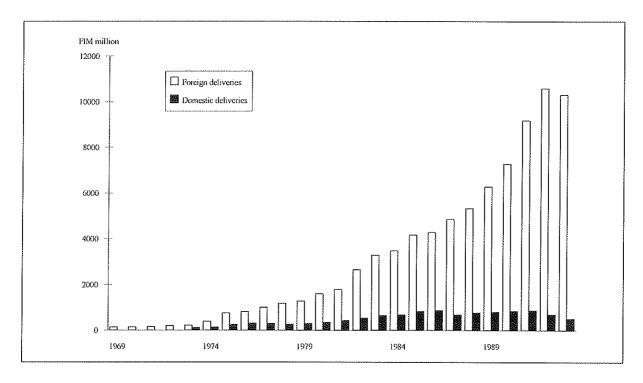


Figure A.1. Foreign and Domestic Deliveries

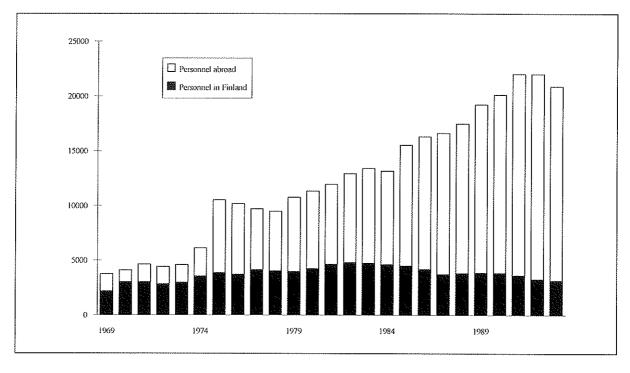


Figure A.2. Personnel Abroad and in Finland

ELINKEINOELÄMÄN TUTKIMUSLAITOS (ETLA)

THE RESEARCH INSTITUTE OF THE FINNISH ECONOMY LÖNNROTINKATU 4 B, SF-00120 HELSINKI

Puh./Tel. (90) 609 900 Int. 358-0-609 900

Telefax (90) 601 753 Int. 358-0-601 753

KESKUSTELUAIHEITA - DISCUSSION PAPERS ISSN 0781-6847

- No 477 SYNNÖVE VUORI, Yritysten ja toimialojen väliset teknologiakytkennät Suomen teollisuudessa. 31.01.1994. 41 s.
- No 478 OLLI TAHVONEN, CO₂ Taxation and Dynamics of Fossil Fuel Prices. 31.01.1994, 31 p.
- No 479 TEPPO I. KYHERÖINEN, Teletoiminnan kansallinen kilpailukyky. 04.02.1994. 91 s.
- No 480 KATI KORHONEN, Advantage Finland Metals Production Technology. 15.02.1994, 34 p.
- No 481 PASI KUOKKANEN, Energian tuotannon koneet ja laitteet. 15.02.1994, 46 s.
- No 482 GEORG ANGENENDT, Identification and Discussion of Parameters that can be used to Analyze Industries with Michael E. Porter's System of Determinants that Influence the Competitive Position of Nations' Industries.
- No 483 MIKA WIDGRÉN, Voting Rule Reforms in the EU Council: Needs, Means and Consequences. 10.03.1994. 40 p.
- No 484 RITA ASPLUND, Teollisuuden työntekijöiden palkat ja inhimillinen pääoma. 06.04.1994. 75 s.
- No 485 JARMO VEHMAS, Massa- ja paperiteollisuuden elinkaariarviointi ja metsäteollisuuden ympäristöhaasteet. 06.04.1994. 57 s.
- No 486 JUHANA A.A. HEIKKILÄ, Corporate Venture Capital mallina suuryritysten ja pk-yritysten yhteistyölle. 07.04.1994. 63 s.
- No 487 SUVI HINTSANEN, Energia-alan tietämyspohjainen vienti. 07.04.1994, 49 s.
- No 488 JULIANNA BORSOS, Foreign Companies in Estonia Industrial Environment and Experiences. 30.03.1994. 82 s.
- No 489 ANTTI PUTUS, Matkapuhelinteollisuuden kotimainen kehitys ja kilpailukyky. 11.04.1994. 41 s.
- No 490 JARI ILKKA, Kirjapainojen kansallinen kilpailukyky ja teollinen tulevaisuus. 14.04.1994. 54 s.

- No 491 PASI KUOPPAMÄKI, European Markets for Corporate Control: A Study of Takeovers' Influence on Corporate Behavior and Implications on EC Competition Policy. 25.04.1994.

 131 p.
- No 492 TOMI TORRI, The World Economy of Metals; A Finnish Perspective. 02.05.1994. 49 p.
- No 493 PHA KAIPAINEN, Competitive Advantage of Finnish Steel Industry. 02.05.1994. 76 p.
- No 494 ERKKA HOPPONEN, Itsenäisen voimantuotannon rahoitus ja kilpailukyky. 16.05.1994. 75 s.
- No 495 JOUNI P. MÄKELÄ, Teleklusterin tutkimus- ja kehitystoiminta sekä koulutus ja konsultointi. 16,05,1994, 67 s.
- No 496 JYRKI RUUTU, Tuntipalkkojen ja työmäärän jousto teollisuudessa laman aikana. 18.05.1994, 68 s.
- No 497 MIKA MALIRANTA, Suomen työn tuottavuuden kansainvälinen taso ruoan, juomien ja tupakkatuotteiden valmistuksessa. Kahdenvälinen vertailu Ruotsiin ja Yhdysvaltoihin. 24.05.1994. 23 s.
- No 498 MAARIT SÄYNEVIRTA PEKKA YLÄ-ANTTILA, Teknologiaintensiivisten yritysten kansainvälistyminen. 06.06.1994. 54 s.
- No 499 PETTERI KAUPPALA, Matkustajalaivaliikenteen kansallinen kilpailukyky. 06.06.1994. 65 s.
- No 500 KAAREL KILVITS, Current State of Estonian Industry. The basic material prepared in autumn 1993 for the joint Estonian-Finnish study project on "the Future of Estonian industry". 10.06.1994. 74 p.
- No 501 KALLE LAAKSONEN RAIJA VOLK, Elintarvikeklusterin kilpailukyky Väliraportti. 20.06.1994. 59 s.
- No 502 SYNNÖVE VUORI, Teknologian tutkimuksen nykytila Suomessa. 21.06.1994, 23 s.
- No 503 PETRI ROUVINEN, Hyvinvointiklusterin kilpailukyky Väliraportti. 27.07.1994. 66 s.
- No 504 SYNNÖVE VUORI, R&D, Technology Diffusion and Productivity in Finnish Manufacturing. 30.08.1994. 27 p.
- No 505 MINNA SALMI, The Rise of Kone Elevators to the top of the world. 05.09,1994, 29 p.

Elinkeinoelämän Tutkimuslaitoksen julkaisemat "Keskusteluaiheet" ovat raportteja alustavista tutkimustuloksista ja väliraportteja tekeillä olevista tutkimuksista. Tässä sarjassa julkaistuja monisteita on mahdollista ostaa Taloustieto Oy:stä kopiointi- ja toimituskuluja vastaavaan hintaan.

Papers in this series are reports on preliminary research results and on studies in progress. They are sold by Taloustieto Oy for a nominal fee covering copying and postage costs.

d:\ratapalo\DP-julk.sam/05.09.1994