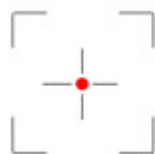

Global Escalator & Elevator Market Report: 2010 Edition

August 2010



**KONCEPT
ANALYTICS**

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Executive Summary

The Escalators and Elevators market or the E+E market, comprises three main segments including: New equipments, Modernization and Maintenance. Due to the global financial crisis, the new equipment market weakened during 2009. However, the Modernization and Maintenance Markets reported a stable performance during the period.

Globally, the E+E market has been dominated by four key players: Otis Elevator Company, Schindler Holding Ltd., ThyssenKrupp Elevator AG and KONE Corporation, which together control a major share of the whole market. The report gives a brief description of the competitive scenario of the global elevators and escalators market and also profiles the top players along with their strategies for growth.

The report analysis the market trends as well as the challenges posed by the global economic slowdown, amongst the others. The global industry has mainly been driven by the increasing urbanization and the ageing population. The report also throws light upon the safety legislations requiring modernizations of lifts in Western countries. Demand and order intake for new elevators tracks GDP growth and developments in construction activity with about a lag of one-year.

The report analyzes the Global Escalators and Elevators market. It also provides detailed information regarding the key regional markets, including Europe, China and the US. The new Escalator and Elevator market worldwide has been dominated by China. EMEA region has the largest share in the installed base of the Escalators and Elevators worldwide. China has been the fastest growing E+E market and in coming years, its share in the global market is expected to increase further.

Key Findings:

- The escalators and elevators market was valued at US\$55.91 billion in 2008, with elevators comprising the major share in the market. The Elevators market (including new equipment installation, maintenance, repair and modernization) was valued at US\$52.97 billion, while the Escalators market was around US\$2.94 billion.
- The global installed base of escalators and elevators had been near about 10 million and the new equipment market accounted for 445,000 escalators and elevators in 2009.
- China was the largest market with 49% share in the new equipment installation, whereas Europe led the market in terms of operational escalators and elevators with a share of 51%.
- Otis Elevator Company was the global leader in E+E market with 25% of the global market share in the year 2009.

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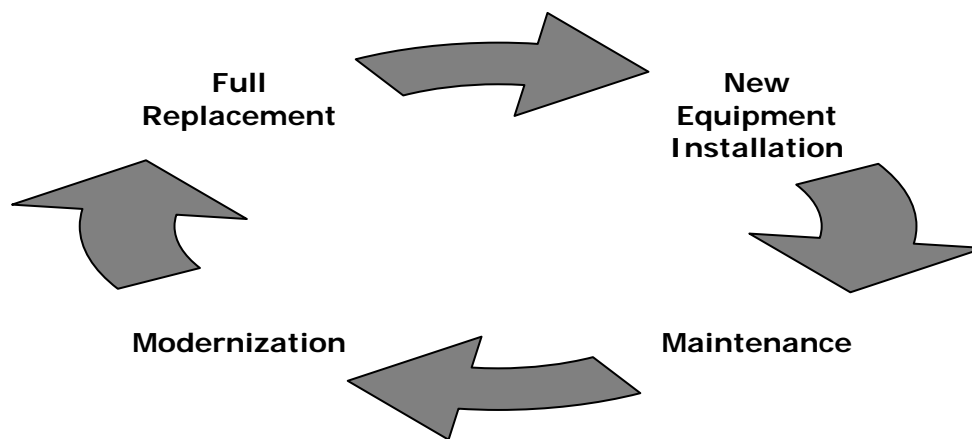
1. Industry Overview

The escalator and elevator market, also known as E+E market comprises three main segments:

- New equipments
- Modernization
- Maintenance

The life cycle of the escalators and elevators start with the new equipment installation. There is typically a time lag of 12 months for a new installed equipment to require maintenance but it can extend up to 30 months. Modernization is the next step in the complete life cycle of escalators and elevators. After a certain time period, the equipment requires full replacement.

Figure 1.1: Life Cycle of the E+E Market Equipments



An escalator is a moving staircase or a conveyor transport device for carrying people between floors of a building. The device consists of a motor driven chain of individual linked steps that move up or down on tracks, allowing the step treads to remain horizontal. Escalators include moving stairways and moving walkways. Moving stairways includes heavy duty transit and standard commercial. The specialty of escalators is that they move people efficiently between floors and in the case of moving walkways over long distances.

Pricing of escalator depends on the distance they are required to travel, the amount of rise and the various appearance options available.

The major product segments of elevators are gearless, geared hydraulic elevators, and machine-room-less (MRL). Primarily there are two types of elevators: hydraulic and electric. Hydraulic elevators work by pumping an incompressible liquid into a sealed container. The piston within the container is forced to move by the liquid filling in its space. The piston is attached with the cab of the elevator. The quantity of liquid and the rate at which it is pumped to vary the speed and distance traveled by the cab is managed by controls. General, lower buildings use hydraulic elevators, while skyscrapers require a different way to move the cab.

Electric elevators use powerful electric motor, cables, pulleys and counterweights to provide motion. The motor is turned by the elevator controls to move the cab

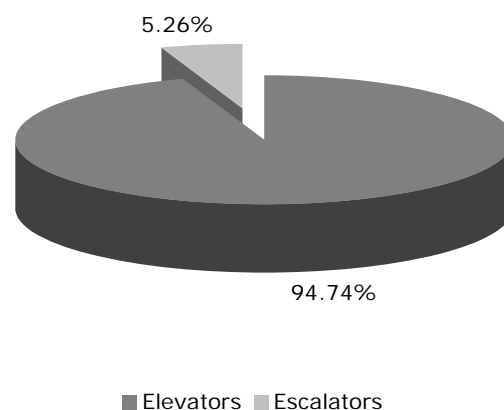
up and down and the counterweight is used to offset the weight of the cab and its passengers. As the cab moves upward in the shaft, the counterweight will move down and vice versa. Pricing of elevators is much like that of automobiles. Elevators also come with a base model that can be adapted or modified with dozens of performance and aesthetic options.

2. Global Escalators and Elevators Market

Globally, the escalators and elevators market is estimated to have declined in value terms in 2009 over the previous year due to the global economic downturn. In emerging markets, the industry has been increasing its installed base through new installations, which is driven by population and urbanization. In the developed markets, the main focus has been on modernization. The lag between the installation of new equipment to the conversion into maintenance is typically 12 months but can be up to 30 months.

The E+E market was valued at approximately US\$55.91 billion (or Euro 38 billion) in 2008, witnessing 9.6% increase over US\$51 billion in 2007. Out of the total industry value, elevators had a major share with around 95.7% of the total market value. The market for elevator installation, maintenance, repair and modernization was roughly US\$52.97 billion (or Euro 36 billion), while the corresponding escalator market was around US\$2.94 billion (Euro 2 billion).

Figure 2.1: Global Elevators and Escalators Market Breakdown (2008)



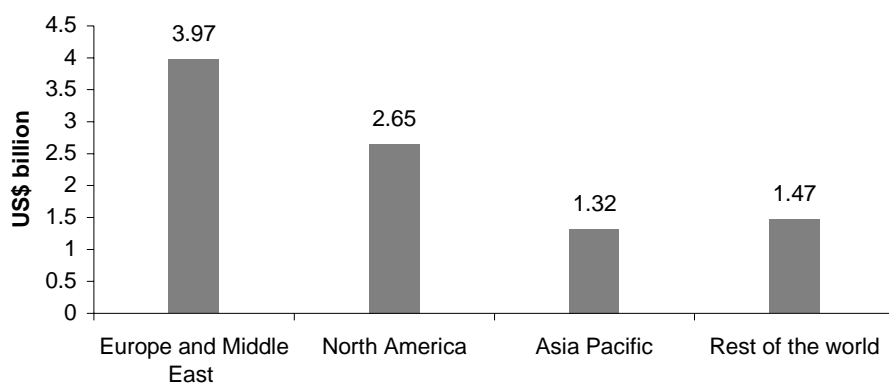
Source: Kone

Due to the global economic and financial crisis, new equipment markets weakened during 2009. The modernization markets remained quite stable despite the weak economic conditions, and the modernization market was valued approximately the same as the year before. Maintenance markets, being less cyclical in nature, had continued to grow. The growth was primarily due to strong new equipment deliveries in prior years.

The good development is expected to expand the new equipment market in the Asia - Pacific region. In 2010, the market has been predicted to continue declining in most countries in EMEA and North America, but by the end of the year, some stabilization is expected. Maintenance markets are expected to continue to develop well in 2010.

The E+E modernization market was valued at approximately US\$9.42 billion (or Euro 6.4 billion). The modernization market was the strongest in Europe and Middle East, followed by North America.

Figure 2.2: Global E+E Modernization Market-Geographic Breakdown (2008)

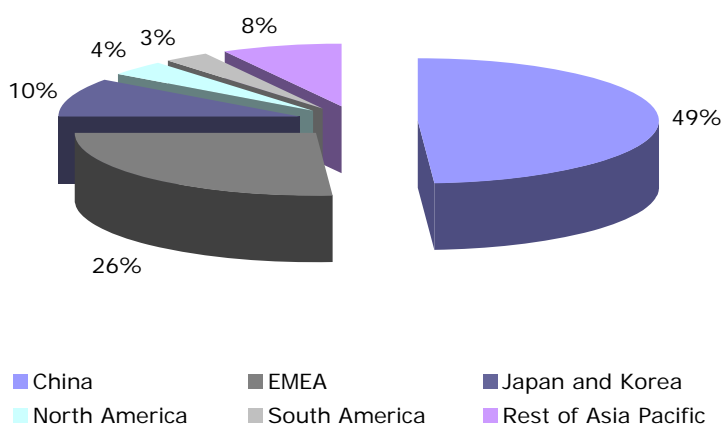


Source: Kone

The E+E market had shown a decreasing trend in 2009 both in new market units as well as units in operation. In 2009, there had been 445,000 escalator and elevator units in the new equipment market whereas those units in operation were somewhat less than 10 million.

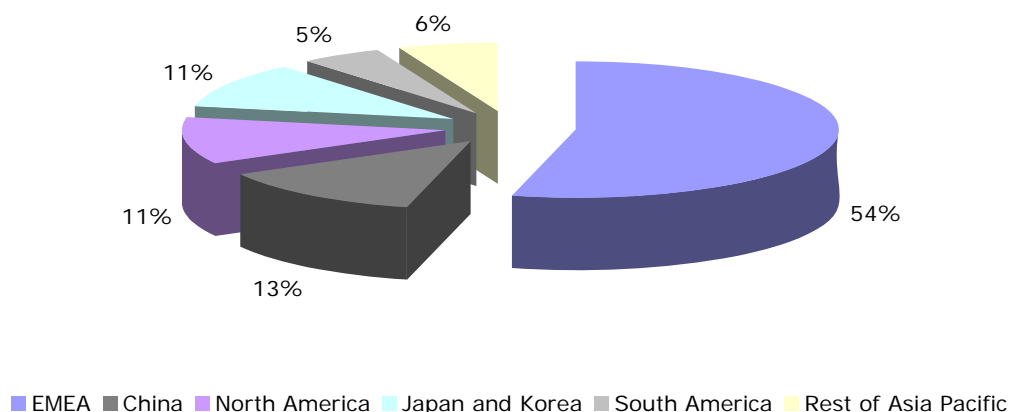
In volume terms, China had 49% share in the E+E new equipment market whereas it had only 13% share in the elevators and escalators in operation worldwide. EMEA, that is Europe, the Middle East and Africa had the largest number of elevators and escalators in 2009 but its share in the new equipments market was 26%. Asia-Pacific region has been showing signs of growth in the recent years due to increased urbanization and growth in construction industry.

Figure 2.3: New Escalator and Elevator Market by Region (2009)



Source: Company reports

Figure 2.4: Elevators and Escalators in Operation Worldwide (2009)

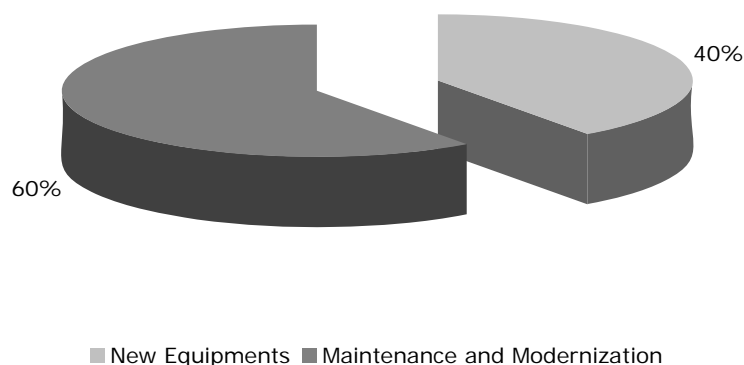


Source: Company reports

2.1 Global Elevator Market

In 2008, the global elevator market size was approximately US\$52.97 billion. Out of this, around 40% consisted of new equipment sales and installations and the remaining 60% was of maintenance and modernization of the existing systems. The maintenance and modernization business had been more stable in 2008 than the new equipments business.

Figure 2.5: Global Elevator Market Segmentation (2008)



Source: Kone

In 2008, there were approximately 9.1 million elevator units in operation worldwide, which represented 4.6% increase over the previous year, when the installed base of elevators was 8.7 million units. Out of these, 478,000 units were installed in that year.

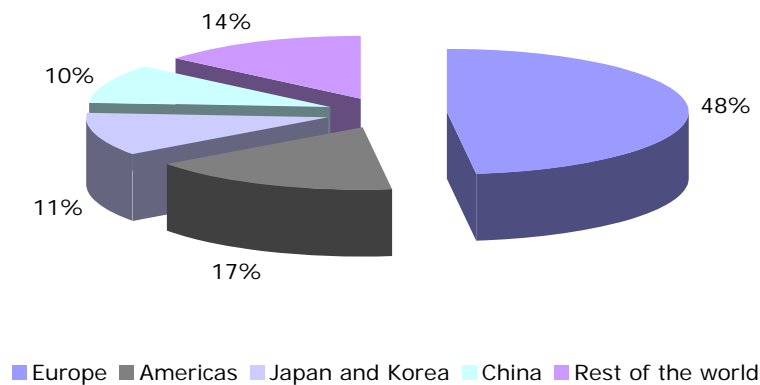
The European market size (in units) was significantly larger in 2008 than that of North America. The increase was primarily due to Europe's relatively higher population density and the increased prevalence of apartment or condominium dwellers. As a result, about half of the annual elevator installations in Europe were for residential buildings and approximately one fifth were for office buildings. Sales growth of new equipment in Europe was constant during the mid

to late 1990s, but has been weak thereafter given the reduced construction activity.

In North America, the largest elevator market segments were office buildings, sports and leisure facilities, and residential buildings, each with approximately the same proportion of the total market in 2008.

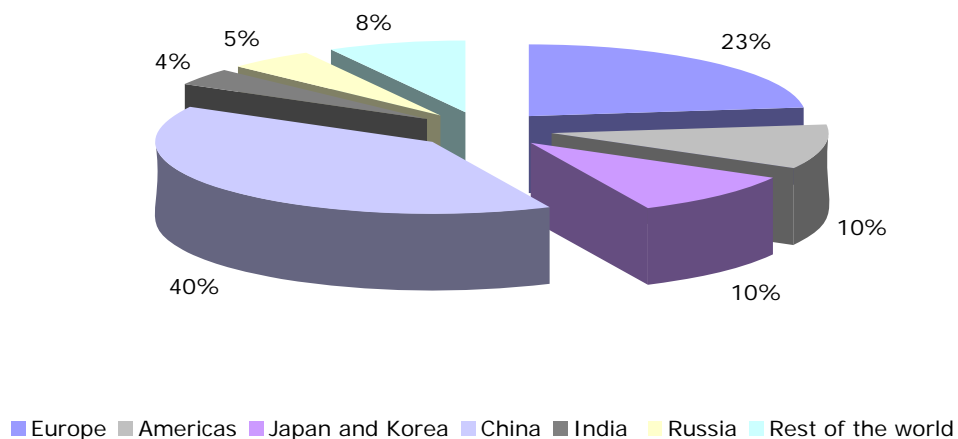
The new elevator market has shifted its focus to China, due to strong population growth and urbanization. The resident construction also supports the elevators market growth in China. In 2008, China accounted for around 40% of the new equipments market, whereas Europe, which accounted for 48% of the elevators in operation in 2008, had only 23% share in the new equipments market. Italy has the maximum number of lifts than any other country in the world with about 885,000 lifts.

Figure 2.6: Elevators in Operation – Geographical Breakdown (2008)



Source: Kone

Figure 2.7: New Elevators Market – Geographical Breakdown (2008)



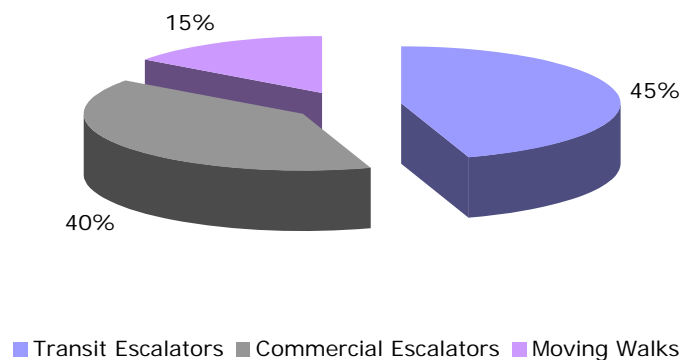
Source: Kone

2.2 Global Escalator Market

In 2008, the escalator market worldwide was estimated to be of US\$2.94 billion, which had a small share of only 5.26% in the global escalators and elevators market. Airports and public transportation terminals account for approximately 50% of the market. The remaining units are delivered for retail facility needs, hotels and leisure facilities, public spaces, offices spaces and residential buildings.

The escalator market worldwide can be segmented (by value) into transit escalators having the maximum share of 45% of the total demand in 2008, commercial escalators with 40% share and moving walks with the remaining 15% share.

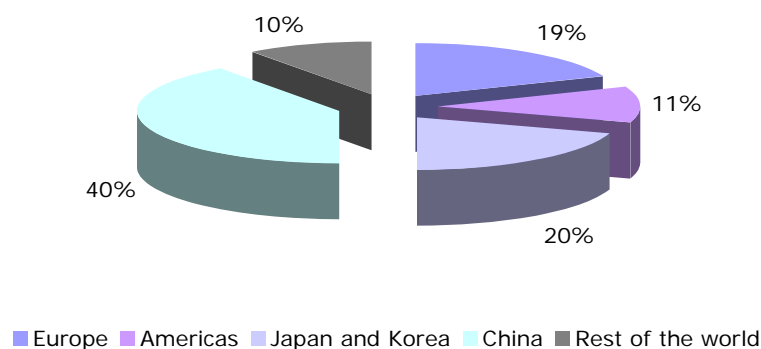
Figure 2.8: Global Escalator Market Breakdown (2008)



Source: Kone

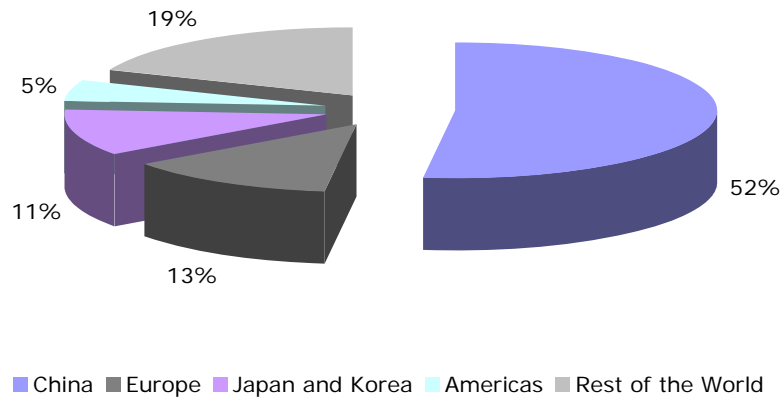
Worldwide escalator market seemed to be dominated by China in 2008 with China accounting for around 40% share in the total units in operation and also having 52% share in the new escalator market. In 2008, the total escalator units in operation had been 500,000 and there were 42,000 units in the new escalator market.

Figure 2.9: Escalators in Operation – Geographical Breakdown (2008)



Source: Kone

Figure 2.10: New Escalators Market – Geographical Breakdown (2008)



Source: Kone

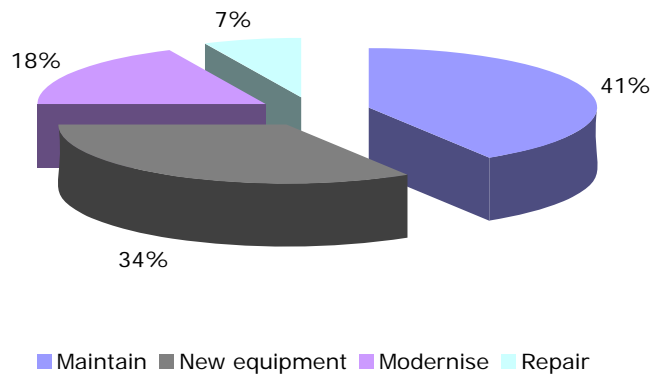
3. Regional Analysis

3.1 Europe

In 2008, the installed base of elevators in Europe was approximately 5 million, which was around 51% of the global installed base. In the seven European markets – Italy, Spain, Germany, France, UK, Switzerland and Portugal, the installed base grew by 2.8% in 2006, 3.3% in 2007 and 2.8% in 2008. The growth in 2009 is expected to be within 2.5% to 3%.

Europe is expected to install about 150,000 new elevators each year. Modernization and maintenance constitute a major part of the revenues of the elevator market in Europe.

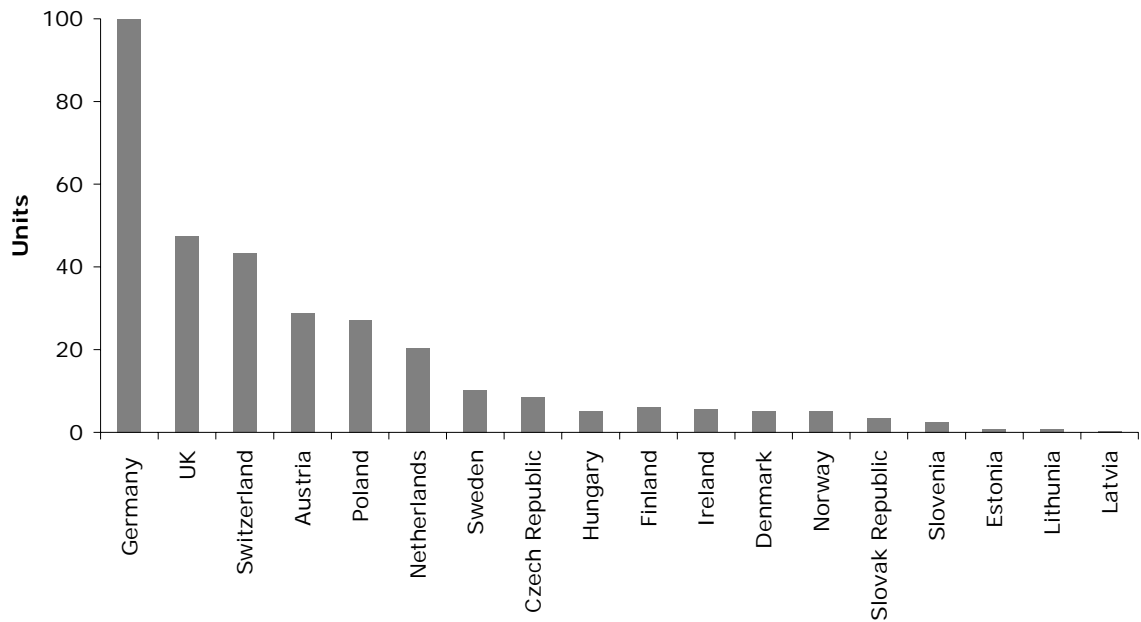
Figure 3.1: European Elevator Sales by Segment (2008)



Source: *European Lift Association*

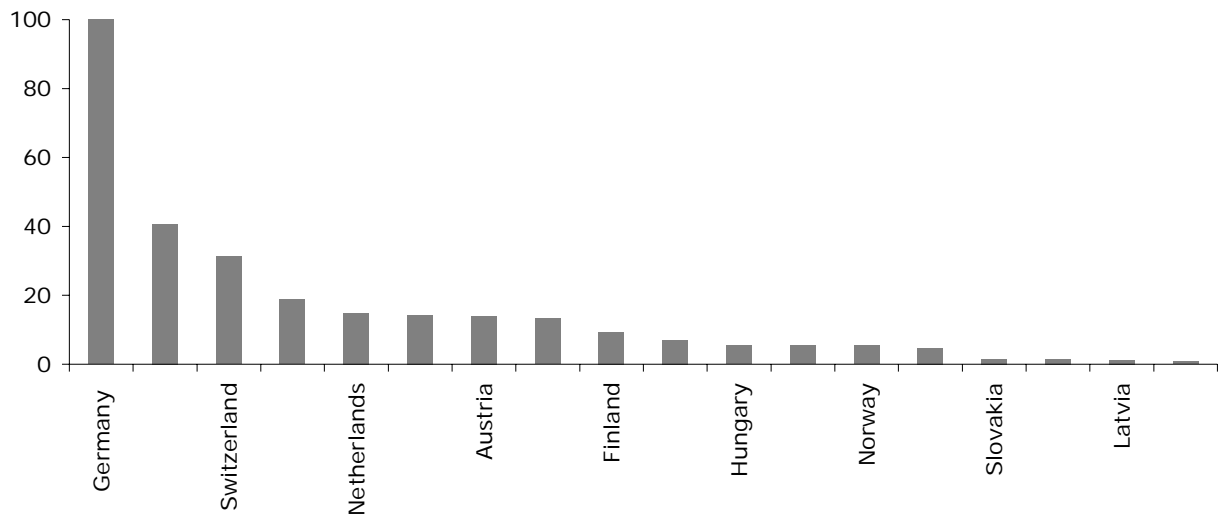
The economic slowdown had impacted the construction activity in almost all European countries, especially in Spain, Portugal, the UK and a number of Eastern European countries. This affected the new equipment market but the modernization market was not severely impacted. In Central and North Europe, the size of escalators and elevators market (both new equipment, repair and maintenance market) was the largest in Germany, followed by UK in 2009.

Figure 3.2: New Equipment Market Size in Eastern and Central Europe (2009)



Source: Based on KONE's estimates.
 Note: The figures have been indexed, taken Germany's market size=100 units.

Figure 3.2: Equipment Service Market Size in Eastern and Central Europe (2009)



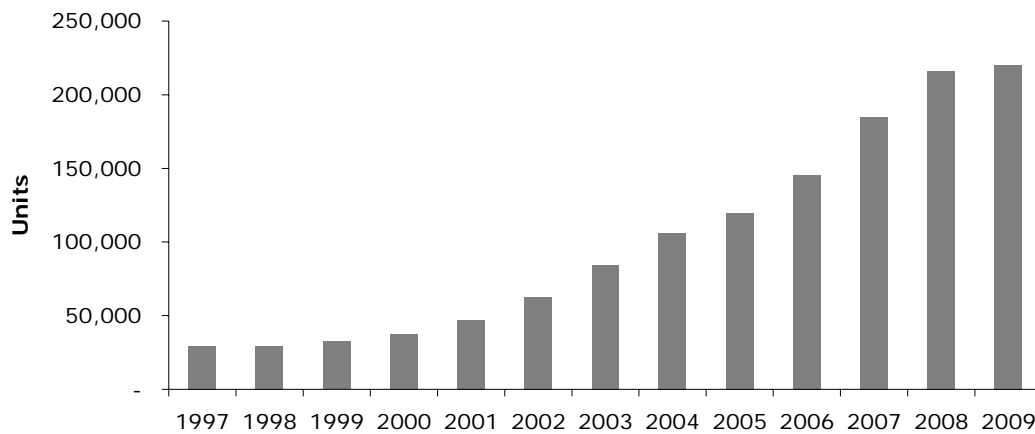
Source: Based on KONE's estimates.
 Note: The figures have been indexed, taken Germany's market size=100 units

3.2 China

In 2009, China had 13% of the global escalator and elevator units but it had a share of approximately 49% of the new equipment market. It has been predicted by the China Elevator and Escalator Association that in future China will remain the largest escalator and elevator market worldwide.

China has been the fastest growing geographical region in escalators and elevators market worldwide. In the new equipment market, China started growing rapidly from 1997 and has shown an average annual growth rate of 19% during 1997-2009. The market in China was impacted by the global financial crisis in the first half of 2009 but it had shown a very strong growth in the second half. The market size of China in new equipments was 220,000 units in 2009. It is expected that in the next five years, China's domestic market and exports of elevators and escalators would make up a half and one third respectively of the global market.

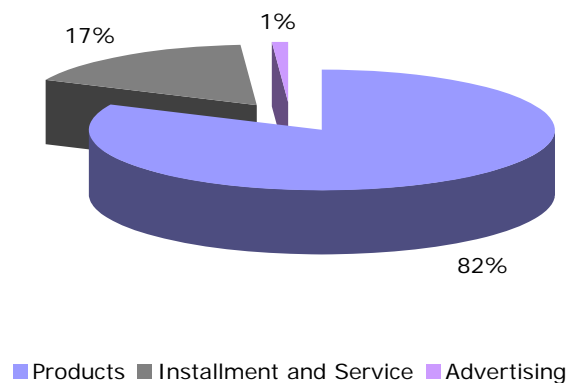
Figure 3.3: China E+E New Equipment Market in Units (1997-2009)



Source: China Elevator Association, KONE Corporation

The elevator industry in China has been divided in three parts: Products, Advertising and Installment & Service. Approximately 82% of the total expenditure of the elevator industry is done on the products, 17% is done on the installment and services of the products and the remaining 1% is done on the advertisement of the products.

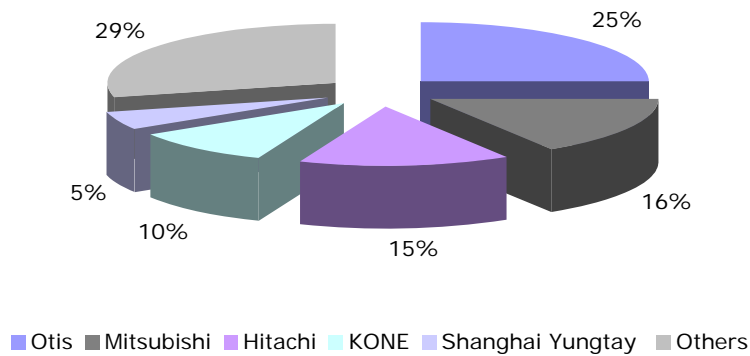
Figure 3.4: Market Breakdown of Elevator Industry (2008)



Source: Deutsche Bank, China Elevator Association

China's Elevator market has been dominated by five players, accounting for more than 70% share. Otis Elevators was the leading elevator manufacturer in China, having a share of 25%, followed by Mitsubishi and Hitachi.

Figure 3.5: Elevator manufacturing – Share of Key Players (2009)

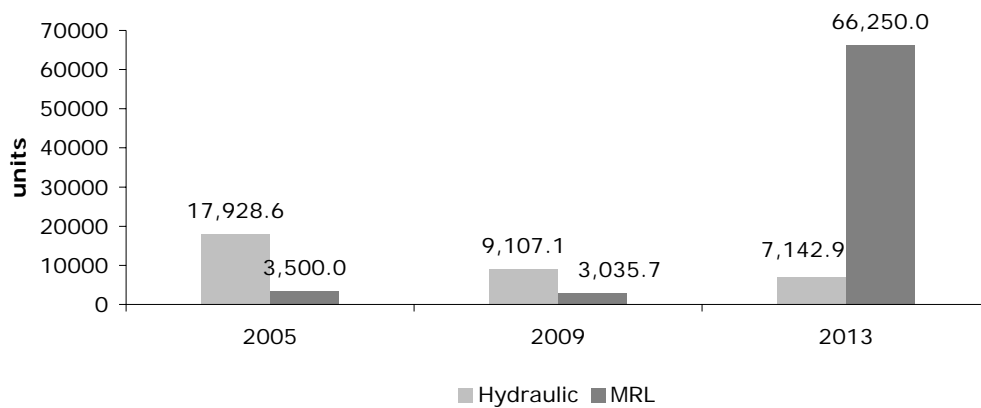


Source: Yungtay

3.3 The US

The US elevator market has been shifting from the hydraulic elevators towards the more technological, energy efficient and space saving type of lifts, known as Machine Room Less Elevators (MRLs). The use of MRL elevator is expected to save approximately 70-80% of energy as compared to hydraulic elevators. It also eliminates the cost and environmental concerns associated with a buried hydraulic cylinder filled with hydraulic oil in case of hydraulic lifts. In 2005, approximately 15% of the total lifts used in the US used MRL technology which increased to 25% by 2009. The use of MRLs is expected to increase to 50% by 2013.

Figure 3.6: The US Elevator Market – By Technology (2005-2013)



Source: Based on KONE's estimates

4. Market Movements

4.1 Key Trends

4.1.1 Shift Towards Energy Efficient Equipments

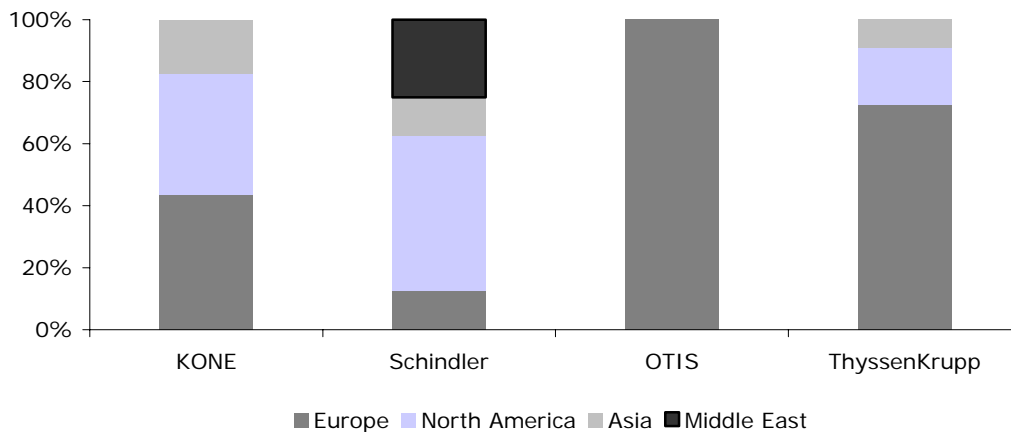
Worldwide energy consumption has been rising continuously, so the major challenge of today's time is to reduce the amount of energy being used. Therefore, there has been a shift from hydraulic lifts towards the more technological, energy efficient and space saving type of lifts, known as Machine Room Less Elevators (MRLs). Escalators and elevators are designed such that they are turned off and signalization is dimmed when the equipment is not in use and as soon as any signal is detected the equipment starts working.

Some elevators are made such that the excess braking energy is recovered from the elevator and is fed back to the network saving approximately 25% of the energy consumed by an elevator.

4.1.2 Consolidation in the Lift Industry

There has been consolidation in the lift industry and the four major players: KONE, Schindler, Otis and ThyssenKrupp are trying to increase their share in the markets. In 2008, KONE Corporation had a total of 23 Mergers and Acquisitions, with 10 in Europe, 9 in North America and the remaining 4 in Asia. OTIS had 8 Mergers in Europe.

Figure 4.1: Mergers and Acquisitions in the Lift Industry (2008)



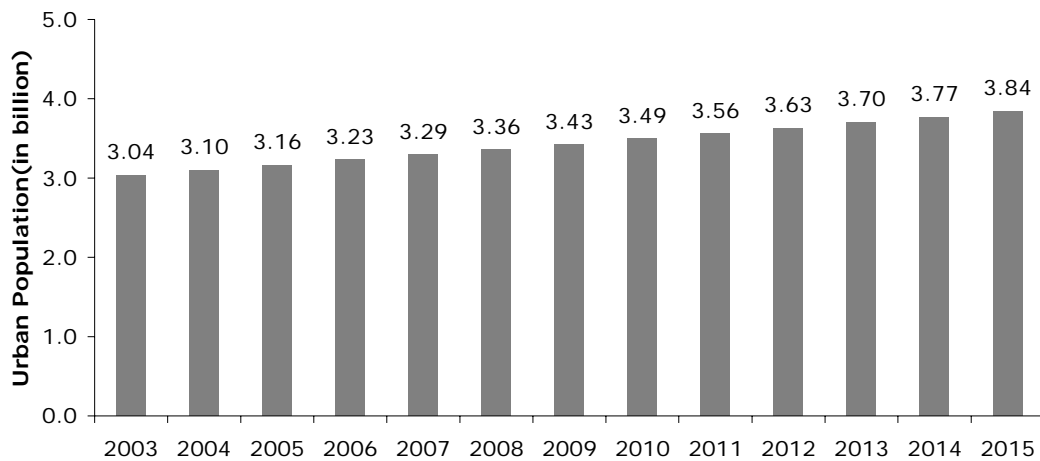
Source: FactSet, HSBC

4.2 Growth Drivers

4.2.1 Increasing Urbanization

Urbanization has been increasing at a very fast pace in the recent years. In 2008, more than half of the world's human population has been living in the urban areas and global urban population is expected to reach 3.84 billion in 2015. The growing urbanization is certainly going to have a positive impact on the Escalators and Elevators industry.

Figure 4.2: Global Urban Population (2003-2015)



Source: World Bank

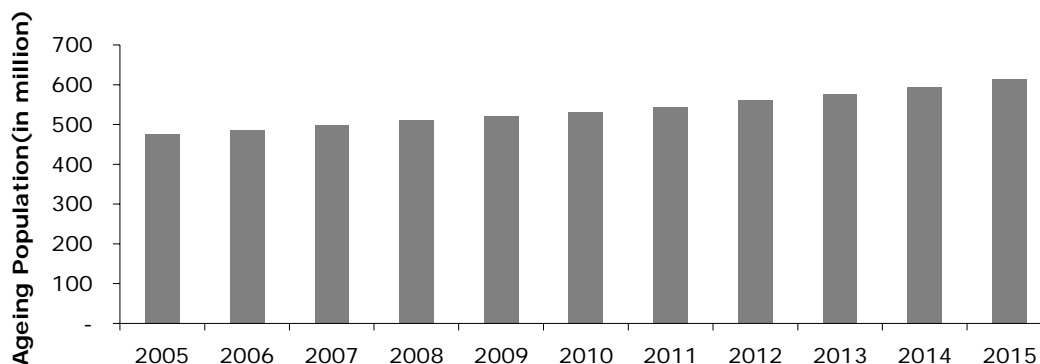
Although urbanization is a universal trend, it has affected the Asian market in particular. The Asian region not only exhibits the highest population density worldwide, but also the highest growth in terms of living standards.

4.2.2 Ageing Population

The E+E market growth worldwide is being fueled by the elderly people. Living in high rise buildings, the aged people certainly prefer to use lifts in place of stairs. As a result, increasing ageing population would directly lead to an increased demand of elevators. The population of people in the age group of 65 years or above is expected to reach 614.18 million by 2015, showing a CAGR of 2.6% during 2005-2015. This fact has proved to be in favor of boosting the demand for elevators.

Given the increasing demand, buildings are being equipped with elevators where none existed so far. This is not only true for the residential buildings but for official buildings too. The machine-room-less (MRL) elevators are gaining popularity for taking less space.

Figure 4.3: Ageing Population Worldwide (age>65) 2005-2015



Source: US census bureau

4.2.3 Regulations

Many countries have some set of rules and regulations that govern the maintenance activities in E+E industry. These regulations drive the industry as they provide certain norms for the maintenance and modernization of the escalators and elevators. Maintenance and modernization (service) sales represent a substantial share of the market.

Though it is difficult to determine the average product lifecycle for elevators and escalators yet it can be estimated within the range of 30 to 35 years. In the emerging markets like Asia, the installed base is fairly new; therefore, it does not call for modernization. Moreover, these markets are not bound by certain concrete legislations regulating elevators and escalators. However, Singapore and Hong Kong have been investigating the possibility of applying European Safety Norms for Existing Lifts (SNEL). In the meantime, China has also been working in the direction of establishing similar legislation, where an industry working group completed the filtering process.

Mature markets like Europe and US are already operating under some established legislations regarding the modernization of elevators and escalators. The American National Standards Institute (ANSI) establishes the codes for the safety in the US, while individual states have adopted standards based on these codes.

Europe introduced the Safety Norms for Existing Lifts (SNEL) legislation in 2003, which was enacted as a law in most Western European EU member states by 2007. SNEL not only identified minor issues, such as asbestos-free brake linings, but also pointed to flaws which required replacement of major parts of the lift, such as the demand for stopping accuracy, which calls for controlled drive systems, which in turn implies replacing the drive, control and hoisting systems. When SNEL was enacted into local laws, the time windows given for implementation were typically starting from 2006, with implementation to be complete by done by 2013-18, depending on the country.

Table 4.1: Implementation plans of European safety legislation in EU

Countries	Implementation plan
Austria	2007-12
Belgium	2005-18
Cyprus	No deadlines
Czech Republic	No deadlines
Denmark	Largely adopted
Finland	Adopted
France	2008-18
Germany	No deadlines
Greece	2006-13
Hungary	No deadlines
Ireland	No deadlines
Italy	2007-13
Luxembourg	No deadlines
Malta	2009-12

Netherlands	No deadlines
Norway	No deadlines
Poland	2012-22
Spain	2007-13
Sweden	2012-22
Switzerland	No deadlines
United Kingdom	No deadlines

Source: *European Lift Association*

4.2.4 Construction and Real Estate Industry

Demand for new escalators and elevator is directly correlated with the general economy and the developments in construction activity with about a one-year lag. Growth in construction and engineering industry would certainly drive the Escalators and Elevators market as increasing construction (excluding homes) would require increased elevators and escalators.

The global construction and engineering industry—excluding homebuilding—is estimated to reach a market value of approximately USD 1.3 trillion in 2008. This represents a 25.2 percent increase since 2003, or a compound annual growth rate of approximately 4.6 percent. The global homebuilding market is estimated to reach a value of approximately USD 840 billion by 2008, a 24.8 percent increase since 2003, equivalent to a compound annual growth rate of 4.5 percent. This market segment is defined as all residential construction including apartment blocks, housing estates and individual home developments as well as prefabricated houses and semi fixed manufactured homes.

5. Key Challenges

5.1 Economic Slowdown

The Escalators and Elevators industry is very much sensitive to the economic conditions and GDP with a lag of about one year. The industry is thus dependant on the prevailing economic conditions. The global economic slowdown has adversely affected the Escalators and Elevators industry. There has been a decrease in the new orders as well as the sales of the new equipments in almost all the geographical locations.

5.2 Possible Overcapacity

Big players have intensified competition in the market. The four leading global companies are present in all the developed markets. However, as the market for new installation reaches maturity, the demand for new installations has started to decline.

The original equipment manufacturers (OEMs) are heavily relying on the repair and maintenance for most of their revenues. Moreover, as the mature markets are also split between the four global OEMs and local competitors, the services business in mature markets has come under extreme pressure.

In order to compensate the loss of revenues from the mature markets, the leading companies are shifting their focus to the emerging markets like, China, India, and Central Europe. Accordingly, these players are aggressively trying to build up a dense installed base for future services revenues.

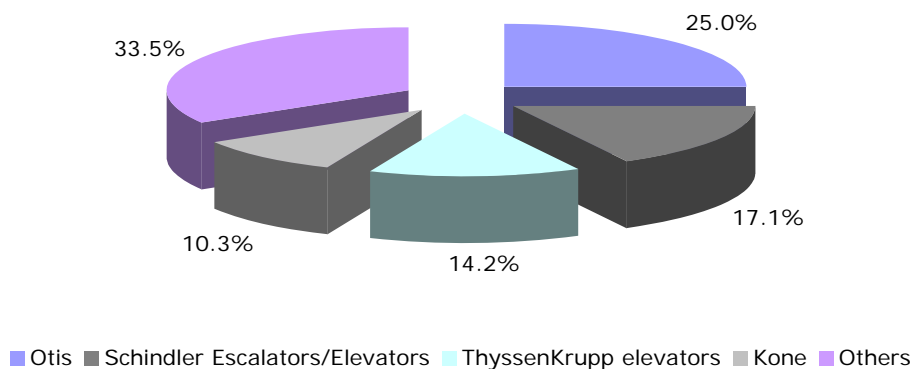
5.3 Entry Barriers

The industry is capital intensive and therefore requires huge amount of capital for any potential entrant to enter in the industry. Also, the four major players: Otis, KONE, Schindler and ThyssenKrupp control approximately 65% of the global market. Small companies can compete effectively in the market by specializing, which requires a huge expenditure on research and development.

6. Competitive Landscape

In the Escalator and Elevator market, the profitability of the companies depends on the engineering expertise and efficient production. Large companies have economies of scale in purchasing and small companies can compete effectively by specializing. The global Escalator and Elevator market is dominated by Otis Elevator company (a part of United Technologies), which had 25% share in the market in 2009, followed by Schindler Escalators/Elevators which had 17.1% share in the global market. The top four players including: Otis Elevator Company, Schindler Holding Ltd, ThyssenKrupp Elevator AG and KONE Corporation, controlled approximately 66.6% of the E+E industry in 2009.

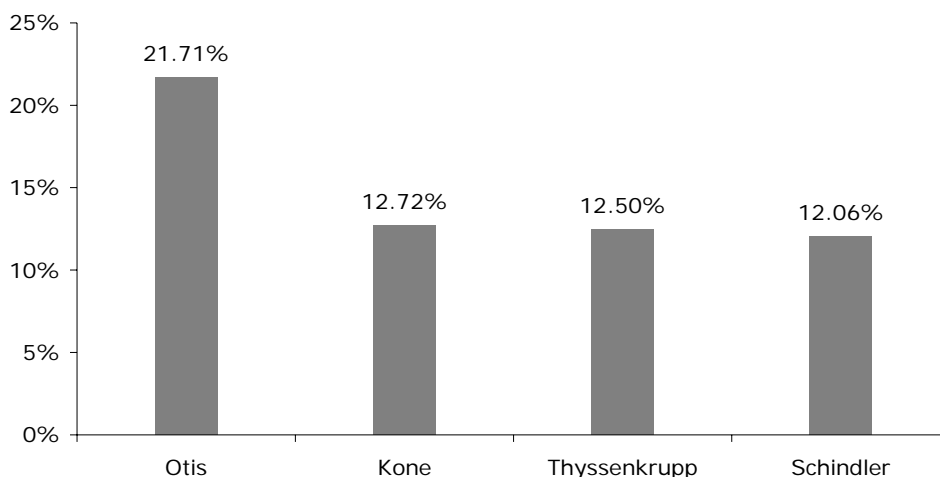
Figure 6.1: Market Share of Key Players (2009)



Source: RBS and Company reports

Otis enjoys the highest margins with EBIT margin of 21.7% in 2009. The EBIT margin of the remaining three top players was almost the same, with KONE reporting a slightly higher margin than that of Schindler and ThyssenKrupp in 2009. KONE had EBIT margin of 12.72% in 2009. The highest margin of Otis is due to higher leverage from volumes in new equipment business and a higher density of its service network.

Figure 6.2: EBIT Margin Comparison of Key Players (2009)

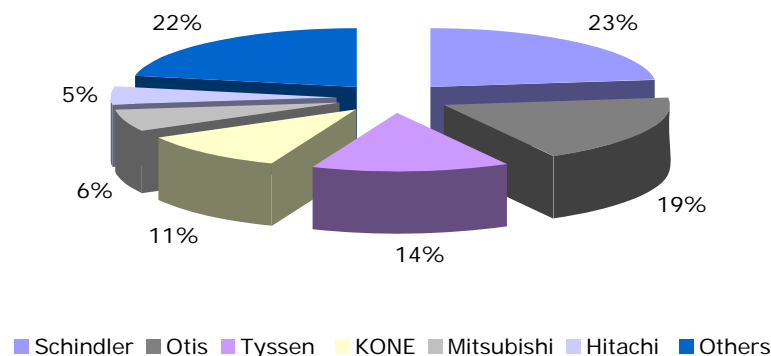


Source: RBS and Company reports

Note: ThyssenKrupp margin is calendarised

Although the Escalator and Elevator market worldwide had been dominated by Otis Elevator Company in 2008, but the global Escalator market was dominated by Schindler Holding AG with 23% share, followed by Otis with 19% share. The top six players: Schindler, Otis, Tyssen, KONE, Mitsubishi and Hitachi controlled approximately 78% of the global Elevator market in 2008.

Figure 6.3: Global Escalator Market Breakdown by Value (2008)



Source: Schindler

Otis has been the market leader during 2006-2009. The revenue of all the four top players in E+E industry declined in 2009 due to global economic downturn. In 2009, Otis Elevators generated revenue of US\$11,779 million, followed by Schindler Escalators and Elevators with revenue of US\$7,628.90 million.

Table 6.1: Comparative Revenue Growth of the Key Players (2006-2009)

	2006 (in US\$ million)	2007 (in US\$ million)	2008 (in US\$ million)	2009 (in US\$ million)
Otis	10,290.0	11,885.0	12,949.0	11,779.0
Schindler Escalators and Elevators	6,224.6	7,293.2	8,088.7	7,628.9
ThyssenKrupp Elevators	5,277.6	6,260.0	7,392.2	7,170.4
KONE	4,518.3	5,582.8	6,732.7	6,597.6

Source: Company reports

Note: The exchange rate used is the average of the corresponding year

7. Company Profiles

7.1 United Technologies Corporation

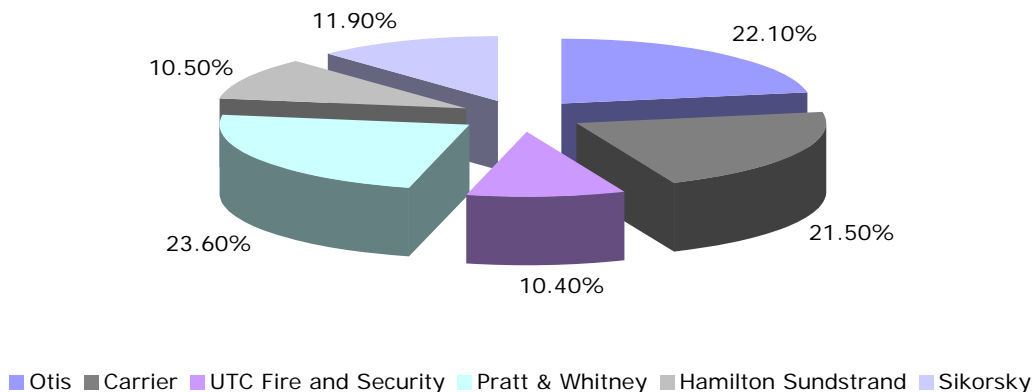
Business Description

United Technologies Corporation is a diversified company that provides a broad range of high technology products and services to the global aerospace and commercial building industries. Its businesses include:

- Carrier heating, air conditioning, and refrigeration solutions
- Hamilton Sundstrand aerospace and industrial systems
- Otis elevators and escalators
- Pratt and Whitney engines
- Sikorsky helicopters
- UTC fire and security systems

Carrier, Otis and Pratt & Whitney have been the most important segments, which together constituted approximately 67.1% of the company's total revenue in 2009. The share of all the segments in the company's total revenue in 2009 has been depicted in the following figure.

Figure 7.1: United Technologies Corporation—Revenue Breakdown (2009)

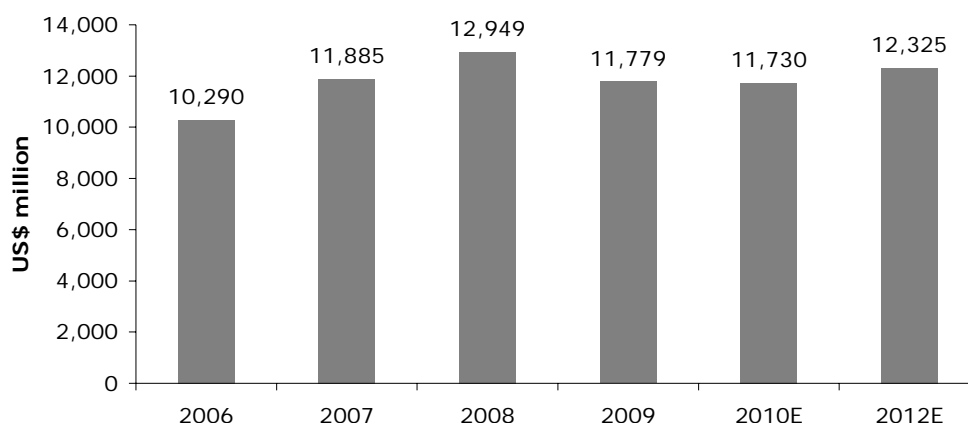


Source: Company reports

Otis had been leading the E+E market from many years. The primary business of Otis is to design, manufacture, market, and install a wide range of passenger and freight elevators for low, medium and high-speed applications, along with a broad line of escalators and moving walkways.

Otis escalator and elevator offers its products in more than 200 countries. Approximately 2.3 million elevators and escalators are in operation worldwide and 1.7 million are serviced worldwide by the company. Otis generated revenue of US\$11.7 billion in 2009, out of which 80% was generated outside the US. The company's revenue declined from US\$12,949 million in 2008 to US\$11,779 million in 2009 due to the prevailing tough economic conditions. The revenue is expected to increase to US\$12,325 million by 2012.

Figure 7.2: Otis Escalator and Elevator Revenue (2005-2009)



Source: Company reports

Business Strategies

Maintaining a balance across businesses

United Technologies Corporation strives to maintain a balance across its businesses in order to limit the impact of any one industry or geographical region on its operating results. The company basically deals in providing high technology products and services to the building systems and aerospace industries. Its operations are classified into six principal business segments: Otis, Carrier, UTC Fire & Security, Pratt & Whitney, Hamilton Sundstrand and Sikorsky. Otis, Carrier and UTC Fire & Security are collectively referred to as the 'commercial businesses,' while Pratt & Whitney, Hamilton Sundstrand and Sikorsky are collectively referred to as the 'aerospace businesses.'

The company succeeds in striking this balance partly through the commercial and aerospace revenue split as noted above, as well as through the geographic diversity that has evolved with the continued globalization of world economies.

The balance UTC tries to maintain is evident from the geographic and business split of its revenues over the years.

Table 7.1: Revenue Split by Business Segments (2007-2009)

Division	2009	2008	2007
Commercial and Industrial	58%	61%	62%
Military Aerospace and Space	21%	17%	16%
Commercial Aerospace	21%	22%	22%

Source: Company reports

Table 7.2: Revenue Split by Geographic Segments (2007-2009)

	2009	2008	2007
Europe	23%	25%	25%
Asia Pacific	13%	14%	14%
Others (Non US)	10%	11%	10%
US Exports	13%	12%	12%
International Revenue	59%	62%	61%

Source: Company reports

Growth Strategy

To expand itself globally, the company follows growth strategy. As part of the company's growth strategy, the company invests in businesses in certain countries that carry high levels of currency, political and/or economic risk, such as Argentina, Brazil, China, India, Russia, South Africa and countries in the Middle East.

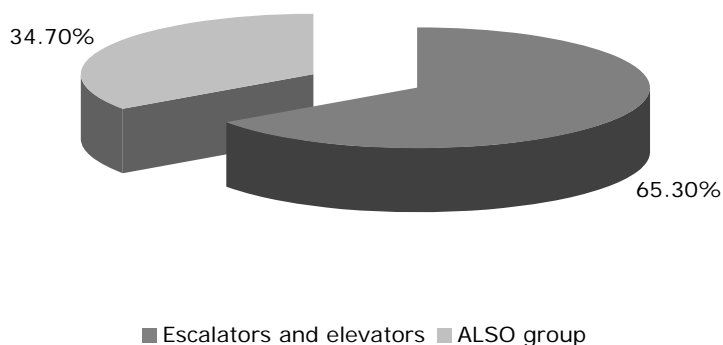
7.2 Schindler Holding Ltd

Business Description

Schindler Holding Ltd specializes in the production of escalators, elevators and moving walks. It is the largest supplier of escalators and the second largest manufacturer of elevators worldwide. It designs, installs, services and modernizes transport systems for almost every building type worldwide. Globally, on an average the company's equipments move more than 900 million people per day.

The company operates in two major segments: Elevators and Escalators; and ALSO. ALSO is a wholesale and logistics division which deals in the information and communication technology sector and the consumer electronics sector. Escalators and Elevators division provides escalators and elevators for all environments, from smaller residential buildings and office buildings to commercial towers, hospitals, heavy traffic environments and high rises. The company generates approximately 65.3% of the total revenue in 2009.

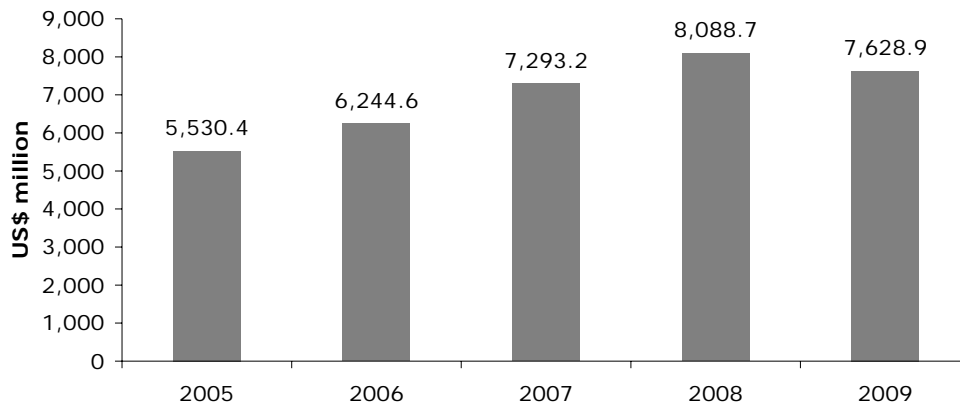
Figure 7.3: Schindler's Revenue by Segment (2009)



Source: Company reports

The company generated revenue of US\$7,628.9 million in 2009 from the escalators and elevators division. The revenue from the segment in 2008 was US\$8,088.7 million. The decrease in revenue in 2009 over the previous year was due to the financial crisis.

Figure 7.4: Schindler Elevator Revenue (2005-2009)



Source: Company report

Business Strategies

Leadership Through Service

The company works on the strategy of “Leadership through Service”, that is attaining leadership by providing services. As around 30 million individuals worldwide use Schindler products every hour, the company ensures that the customers and passengers can rely on high-quality mobility solutions and services at all times. Two factors are essential in order to achieve this:

First requisite is the strengthening of Schindler’s global presence and the related expansion of its service network in the individual markets. The company is thus able to exploit different global growth cycles, to smooth out currency risks, to reduce response times and at the same time, to increase the productivity of its services.

The second prerequisite is a clear focus on its core competencies in the elevators and escalators business in order to outperform the competition in an increasingly price-sensitive market through cost leadership. Schindler works constantly in order to secure this competitive advantage.

All processes are therefore continuously optimized, manufacturing depth is reduced by focusing exclusively on strategic core competencies, and the range of product families is reduced to a reasonable number. At the same time, Schindler focuses continuously on developing leading products featuring the latest technology.

7.3 ThyssenKrupp AG

Business Description

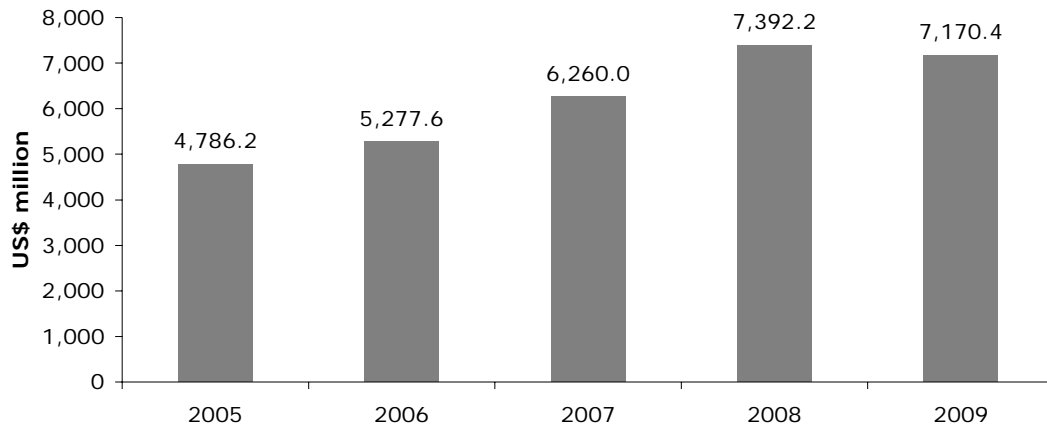
ThyssenKrupp is one of the largest steel producers and is an integrated materials and technology group offering solutions for sustainable progress worldwide. The company operates in more than 80 countries. The company’s 8 business areas are divided in two divisions: Materials division and Technology division.

Material division: This division includes: Steel Europe, Steel Americas, Stainless Global and Materials services.

Technology division: This includes the Elevator technologies (Escalators, elevators, moving walks, passenger boarding bridges and stair lifts), Plant technology, Components technology and Marine systems.

In 2009, elevators accounted for 13.1% of the company's total revenue. The revenue of the elevators division dropped down to US\$7,170.4 million in 2009 from US\$7,392.2 million in 2008, as the business got affected by the prevalent global economic conditions worldwide.

Figure 7.5: ThyssenKrupp Elevator Revenue (2005 – 2009)



Source: Company reports

Business Strategies

Improved Cost Base

The company has been strategically implementing cost reduction and restructuring programs in order to strengthen the company's position in the global market and to increase its competitiveness. The company has launched PLuS program which was the company's response to the global economic recession. The program is also expected to improve the company's cost base in the future.

To Be Technologically Ahead

The company has the strategy to be technologically ahead of all its competitors in order to improve its competitiveness in the market. Their technological initiatives open up new roads for the company to progress. It has more than 3,500 scientists, engineers and other specialists working on 2,000 plus research and development projects across 85 development centers. One such technologically innovative effort by the company includes the concept of energy saving elevators.

The company also focuses on innovation in service business by improving business and developing new service offerings for the customers. New applications in the civil engineering field have also been developed.

Focus on Quality Oriented Equipments

The main focus of the company is to manufacture quality equipments. The introduction of TWIN elevators is an approach towards quality orientation. In the TWIN system, two elevator cabs travel independently one above the other in the

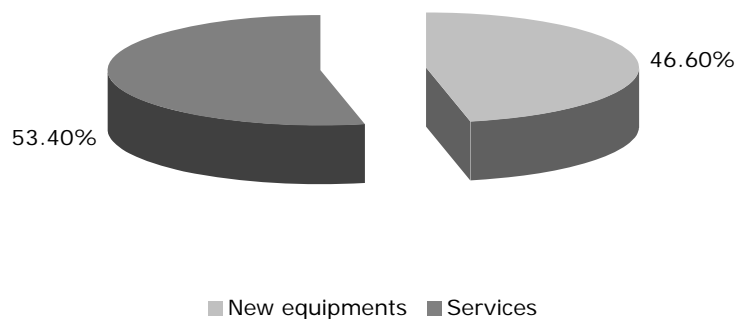
same shaft, taking up much less space while at the same time increasing capacity and convenience.

7.4 KONE Corporation

Business Description

KONE Corporation is an international engineering and service company and deals in the installation, maintenance and modernization of escalators and elevators. The company also deals in the maintenance of automatic building doors. The company mainly deals in two segments: New equipments and services. The company generates maximum share of its revenue from service segment.

Figure 7.6: KONE Corporation – Revenue by Segments (2009)



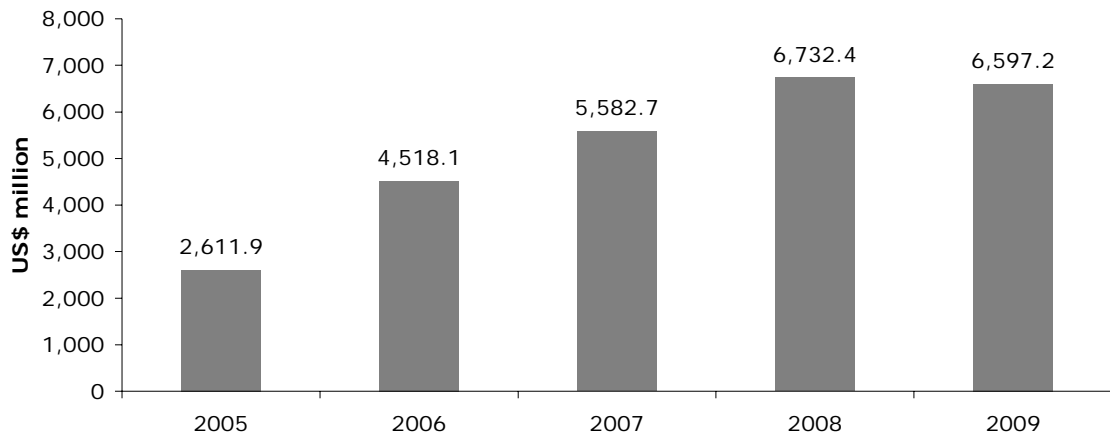
Source: Company reports

The company offers its services to builders, developers, building owners, facility managers and architects in more than 50 countries. It operates through its subsidiaries located in the US, France, United Kingdom, China, Australia, Italy, Germany, Finland, the Netherlands, Spain and others.

KONE is one of the global leaders in the elevator and escalator industry. The company focuses on the customers needs and therefore has developed many new products and services. The company also focuses on the research and development in order to provide innovative products and modernization techniques.

The company is the fourth largest player in the global escalators and elevators market. Its revenue has been increasing over the years with a CAGR of 37.1% during 2005-2008. The revenue decreased in 2009 to US\$6,597.2 million from US\$6,732.4 million in 2008.

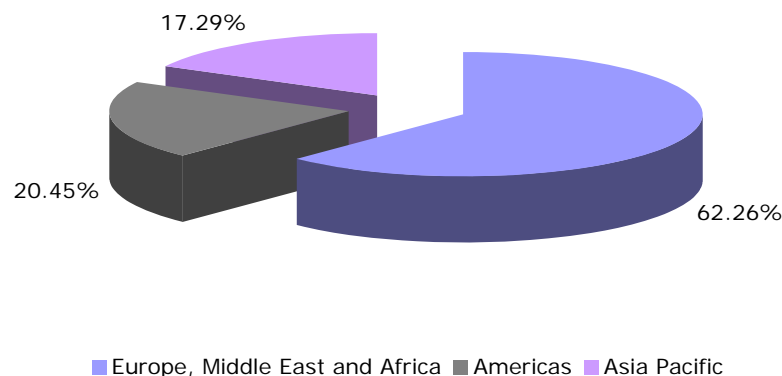
Figure 7.7: KONE Corporation's Revenue (2005 – 2009)



Source: Company reports

The company operates primarily in Europe, Middle East and Africa (EMEA) region and generated approximately 62.3% of its revenue from this region only. It had 20.5% of the revenue from the Americas and the remaining 17.2% of the revenue from Asia Pacific.

Figure 7.8: Revenue – Geographical Breakdown (2009)



Source: Company reports

Business Strategies

Wide Geographical Presence

KONE Corporation has been operating globally and its operations are well covered in Europe, Middle East and Africa; Americas; and Asia. This wide geographic presence decreases the company's business risks. The company has high quality customer base in all the major markets. The company has strategically expanded itself in the emerging economies

Innovative Research and Development

The company focuses intensely on Research and Development techniques, which helps it to continuously develop new products and technologies. KONE's innovative modernization solutions range from small upgrades to full replacement

of the equipment. The company therefore invests a substantial amount in Research and Development activities every year. A strong focus on R&D could help the company launch new and innovative products to sustain its market share in the highly competitive industry. The company provides a complete range of energy efficient machine-room-less (MRL) solutions. Also, the company has the first and only 'A' rated elevators in Europe (Germany).

Its R&D centers are located in China, India, Italy, Germany, Finland and the United States and claim responsibility for the continuous development of solutions for elevators, escalators, maintenance and modernization. To achieve the best solutions, work is carried out in cooperation with various customer groups, suppliers, strategic partners and research centers.

Customer focus

Almost all the tasks of the company are customer oriented. The company places a lot of interest in satisfying the customers worldwide. The company's delivery process has been in such a way that it provides material deliveries to the site in correct timings as required. The equipments produced by the company are well managed and installed and take less time on sites, thereby helping customers save their time.

The maintenance process of the company provides harmonized modular based maintenance methods. The call center facilities are provided by the company, which provides after sale services to its customers. The company provides training programs in order to increase customer focus.

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Konzept, through its Customized Solutions fulfills specific information needs of its clients. It could be a thorough understanding of the competing products in a specific market, differentiation strategies of its key competitors, regulatory constraints in any specific geographic region or exploring potential business opportunity in any market.

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