

Department of Mechanical & Aerospace Engineering

ME524 – Group Project Abroad

DEVELOPMENT OF AN ELEVATOR PROTOTYPE

WORLD ELEVATOR MARKET STUDY

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# World Elevator Market Study

The world elevator market has experienced a significant rise in total market worth over the past twenty years due to the increasing demand for elevators globally. According to the Freedonia Group’s, an independent global market research company, industry study titled ‘World Elevators. December 2013’ [1] the total elevator market worth has increased from $24.9bil to $66.2bil in the twenty years leading up to 2014. This demand has been due to an increase in global urban population, notably from 2.5 billion in 1994 to 3.8 billion in 2014. In this timeframe, countries such as China and India, and countries within the Middle-East have seen rapid economic and social development within urban areas resulting in the emergence of a vast and lucrative market for elevator manufacturers and service providers [2].

Typically, the world elevator market is split into two categories: the Equipment market and the Services market, each with subsequent sub categories. The following flow hierarchy chart shows how the market is made up [Figure 1]:

**Figure 1- Elevator Market Hierarchy**

During the last twenty years both the Equipment and Services sectors of the market have seen an increase in revenue. Figure 2 is a graph detailing the market growth for both sector and the overall market growth over the timeframe in consideration:

**Figure 2- World Elevator Market Growth**

We can clearly see that the Services sector of the market has consistently generated more revenue than the Equipment market over the last twenty years, and as of 2014 the individual value lies at $36.8bil and $29.5bil respectively. Lawmakers and global standards committees, in particular for the European sector the European Committee for Standardisation, have progressively become more stringent on elevator safety and regulation allowing both markets to flourish. One instance of increased elevator rules, and thus a surge in the market, can be seen within legislation in the United Kingdom within the addition of section M in 2004 to the Disabled Discriminations Act 1995 [3]. This addition to the legislation provides further guidelines for the accessibility of disabled people within new and existing buildings in the UK, in particular section 3.1 titled “Provision of Lifting Devices”. The requirement therefore to satisfy this piece of legislation has resulted in an increase in the overall market: a trend that has been seen not just in the United Kingdom but also globally, as lawmakers become increasingly more stringent on accessibility laws.

This act has since been replaced by the 2010 Equality Act; an act that has been created with the addition other anti-discriminatory acts providing clear guidelines on key issued, least of all accessibility in buildings; with clear emphasis on the need for elevators and escalators in buildings that without would otherwise be inaccessible to a disabled person.

The respective market share of each sector has been consistently dominated by the Services sector; however recent figures suggest that the Equipment share is increasing, with the Services share decreasing respectively [1] as shown in figure 3.

**Figure 3- World Elevator Market % Share**

The Equipment market percentage share has steadily increased from 35% in 1994 to 45% in 2014, compared to the decline in the Services (however still with a considerably higher market share) of 65% in the same period of time. This trend is forecasted to continue and the Equipment market will have a majority share of the market within ten years.

As previously mentioned the total world urban population has increased by 52% during the last twenty years, resulting in a dramatic increase in the elevator market worldwide. Figure 4 the world elevator market value per region over this timeframe:

Figure 4 - World Elevator Market Share by Region

From this diagram we can clearly see that the market within Western Europe has consistently been the most valuable market for elevator manufacturers and service providers over the past twenty years. However at the turn of the millennium, an emerging market in Asia has brought a significant increase in the market value to a point where it is now (2014) the most valuable market worldwide. This trend is said to continue as the world urban population increases and in particular the urban population within Asia increases. It is estimated [4] that the rural populations of China and India currently stand at 48% and 68% respectively, compared to Western Europe where over 80% of its residents live in urban environments. As the urban population of Asia increases, the need for commercial and social buildings equipped with elevators and escalators will only increase.

# References

1. Freedonia Group, Inc. (2013). *World Elevators .* Available: http://www.freedoniagroup.com/inthenews/566557/world-elevators.htm. Last accessed October 2014.Sensorsmag Elevator market developing countries
2. Sensors Online. (2013). *Global Demand for Elevator Equipment & Services to Reach $111 Billion.* Available: http://www.sensorsmag.com/sensors/news/global-demand-elevator-equipment-services-reach-111-billion-12551. Last accessed October 2014.
3. HM Government. (2010). Access to and use of buildings. Part M. *The Building Regulations 2010*. 1 (Section 3), p36-40.
4. The World Bank. (2014). *Urban Population (% of total).* Available: http://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS. Last accessed October 2014.