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**THE GLOBAL BUSINESS ENVIRONMENT  
MODULE CODE LCBB4005**

**NEW BUSINESS OPPORTUNITIES AND  
PRODUCT LIFE CYCLE – ASSESSMENT 2**

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## Introduction

The electric vehicles industry (EVs) has developed rapidly quickly in recent years because of political, economic, environmental, and other agreements between countries on the international level.

This report will include different models and framework which will help in analysing the functioning of the automotive industry. The study consists of Porter's Value Chain model, and the critical activities are identified. Also is described the Product Life Cycle along with the different stages. The research will give data on what and why it can be to change that increases business opportunities of the electric vehicles industry.

In the paperwork will use the company Volvo Group examples. One of the significant European companies operating in the automotive industry. Volvo was developed in 1927. The organisation is providing high-quality electronic cars to meet the customer's demand.

## Internal analyses

### Porter's Value Chain

There is the consideration of the model Value Chain of the EVs Industry. It was developed based on the theory and the general model by Michael Porter as a tool for business analyses and described in his book "Competitive Advantage: Creating and Sustaining Superior Performance" in 1985.

One of the most effective models that support in identifying and analysing different activities of the industry is Porter's Value Chain model. In this context, the investigation will aid in classifying and inspect, which movements in the field economic are critical for the future and which activities of the business will not be needed in future.

Dissect reveals the advantages and disadvantages of the industry. If the producers have power in the differentiation, they try to perform their activity better than competitors. If they are more competitive than their rivals in reducing costs, are concentrates efforts there (Liu, 2013).

Volvo Group uses Porter's Value Chain approach to create a long-term and competitively sustainable development agenda. It seeks to participate in mutually beneficial associations with its business partners.

The revision of productivity with the help of the model requires a new set of steps in product development with a change in the processes of purchasing, production, distribution and service, products in use, reuse of products.

Using a social strategy for differentiation, Volvo makes the changes in the value chain, referring to legislation, changes in society, customer needs and new technologies (Kherchi et al.,2019).

### Identify key primary activities

The Automotive electric vehicles industry is producing cars which are with new and advanced technology that meet the needs of its clients.

With the help of Porter's Value Chain, the industry identifies its primary and ancillary activities by added their values to the value of the final product.

The main activities bring their value directly to the cost of the production process.

- ✚ **Inbound logistics** – In this activity, the manufacturers to receive material from different suppliers. It includes a collection of raw material, storing of input and distributing of raw material to the production department.

For Volvo Group, relationships with suppliers are far-reaching - used highly advanced components (95% of them are certified to ISO 14001) and long-term contracts (Kherchi et al.,2019).

- ✚ **Operations** – This action refers to the processing of raw material into high-quality products of cars. This activity consists of machining, packing, assembling as well as testing of the manufactured product.

Volvo's production facilities are of audited quality from third countries, and 98% of them also have an environmental certificate (Kherchi et al.,2019).

- ✚ **Outbound logistics** – The logistics movements can be described as the process of handling final goods, material handling, warehousing of products, order processing along with transportation and delivery of the electric car.

- ✚ **Marketing and sales** – The primary activity is especially important as this will support in attracting and informing customers about electrical car products. It consists of newspaper and magazine advertisement, TV commercial, social media marketing, the websites on the companies, International Organisations for EVs producers and their websites and so on.

All sales partners answer by the high expectations from Volvo and are covered by Volvo's environmental requirements (Kherchi et al.,2019).

- ✚ **Services** – The organisations must provide adequate services to customers as this will support in developing a strong relationship with them. This activity includes final checking of the electric car, after-sales service, complaint handling and guidance to the customer about the vehicle and its features. 90% of Volvo distribution centres are certified according to ISO 14001 (Kherchi et al.,2019).



Source (M Mavrodieva)

### Support Activities

As noted above, core activities bring their value directly to the product. At the same time, support activities sometimes also play a profoundly severe role in creating the value of the product.

In the current high-tech age, the competitive advantage is often due to modern improvements and innovations in the automotive industry.

It follows that the departments that develop R&D and others that maintain "Information Systems" or deal with "General Management" are an extremely significant source of competitive advantage and differentiation in the field (Chowdary, 2015).



Source (M Mavrodieva)

### Evaluate key primary activities that will be critical for future

Different primary activities are crucial in future for the development of electric cars. For inbound logistic organisation needs to be more focus on the election of raw material that is useful for the development of high-quality electronic vehicles. This includes new technology, carbon frames, electric engines, battery and so on. Operational activities performed with new and modern techniques as well as robotic support which will support in the expansion of the industry.

### Evaluate the main primary and secondary activities that are not necessary for the future

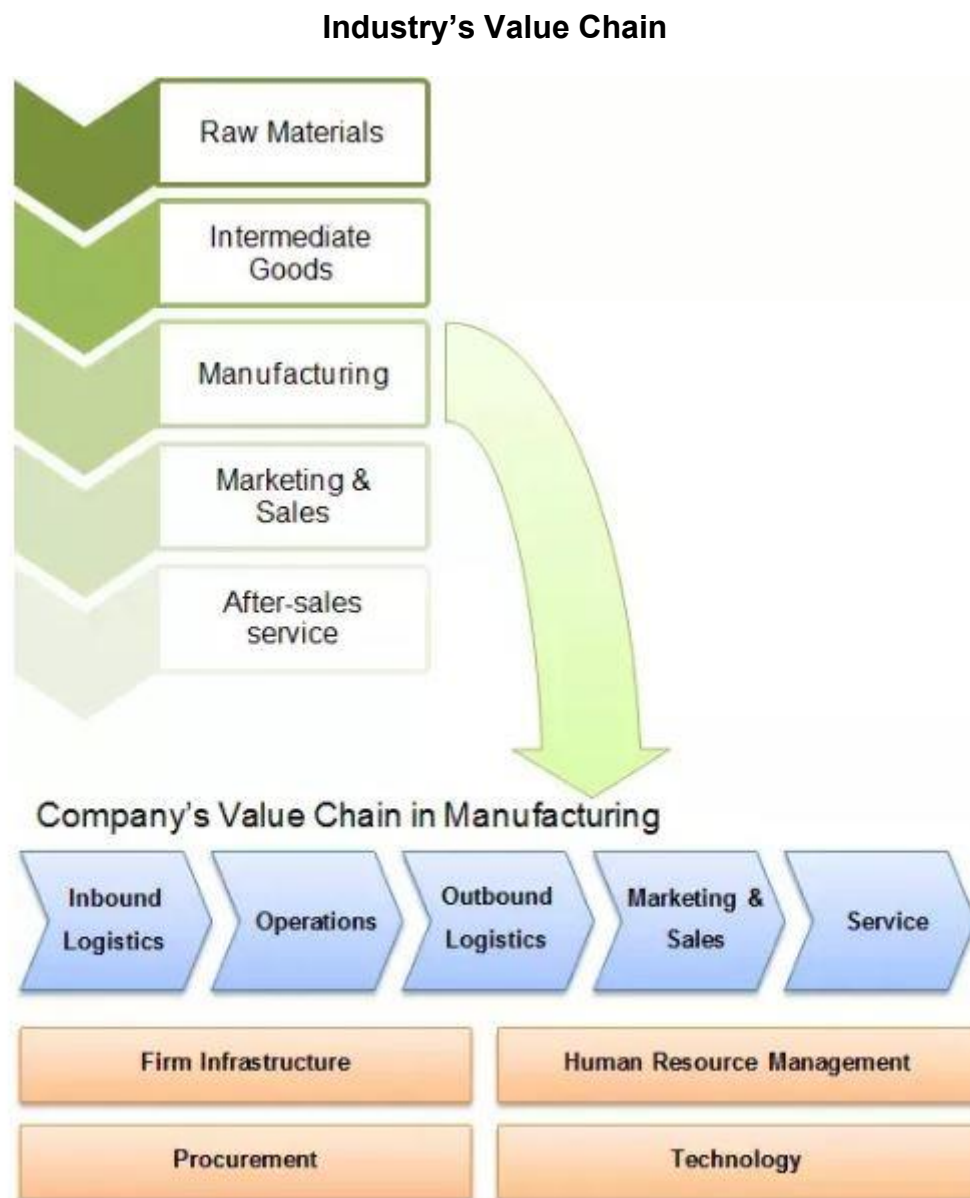
Various primary and secondary movements will not be needed in the future in the production of electric vehicles.

At the entrance, the raw materials that are delivered are extraordinarily differentiated, and there is no need to sort its.

Worker participation in production processes will be reduced by relying on robotic machines and production lines. This will reduce the number of total workers. At the same time, highly skilled workers will be sought to service large-scale production facilities.

### Industrial value chain

The value chain model is shown here, which helps to identify and analyse the value of the various activities in the automotive industry. It as well shows their impact on the cycle, scale, development, and growth of production. Also, it is necessary to be investigated the value chains of the involved supported producers (suppliers and al.) for a full review of the industry (Liu, 2013)



Source (Quora, 2015)

## The different value chains

### **Supplier value chain**

New technological productions require the provision of other types of supplies and suppliers (automotive OEMs). Their materials must meet specific certificates and parameters. The choice of supplier is of great importance for the production itself because, in case of untimely or poor-quality delivery of materials, the whole production suffers or may even stop.

### **Company value chain**

The company value chain includes an analysis of the various companies that carry out business activities in the automotive industry. These are the so-called ancillary chains, subsidiaries, or diversified sectors. For example - productions for fabrics and skins - as accessories in cars; productions for brake systems, for oils and batteries, etc.

### **Chain value of the channel or distributor**

The Automotive Electrical Industry must identify and analyse a different distribution network to deliver high-quality products to the customer. For example - sales of EVs directly from manufacturers, sales from authorised distributors, purchases from retail stores, deals from leasing companies.

### **Chain value to buyers**

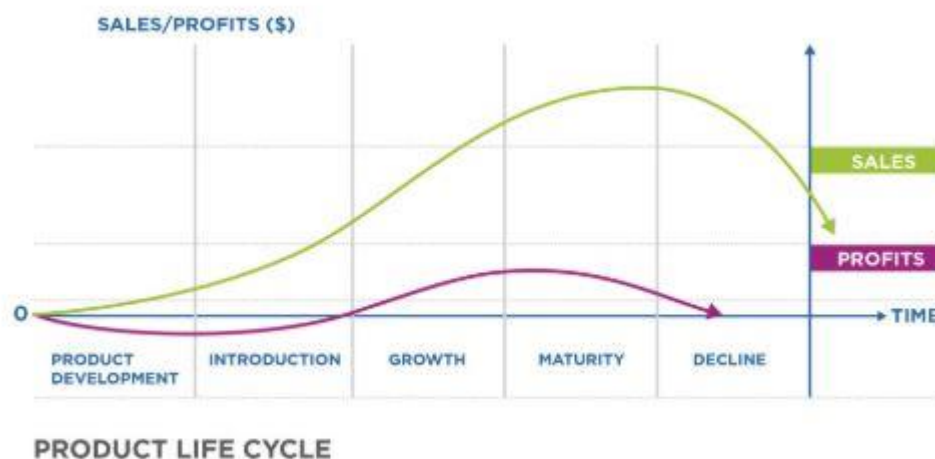
Buyer value chain analysis is useful for identifying different types of buyers who are interested in buying EVs and electric car products. Car companies give a significant advantage to their buyers because brand loyalty is a significant factor in choosing vehicles.

### **Disposal or recycling of a value chain**

This value chain analysis is useful in taking corrective action and techniques to recycle manufactured products. At the same time, it is essential, because the production of EVs is also part of the global plan for environmental protection and conservation of non-renewable resources on the planet (Liu, 2013).

## Product life cycle

The product life cycle is a model that theoretically explains the process of creating and putting into operation a product. From the appearance of the idea by the goods to the entry on the market, stable sales and, accordingly, the depletion of opportunities and the death of the product. This pattern illustrates the key five stages that each product goes through. According to life cycle theory, each industry goes through several different scenes (cycles) over time, like the product life cycle (Windrum and Birchenhall 1998).



Source (Mullor-Sebastian, 1983)

### Identify the critical phases of the life cycle of electric vehicles

There are five different periods that the life of electric cars goes through. Each of them is especially important and has a disparate impact on business results as well as product sales. The stages of this process are listed below.

- ✚ **Product development** - The period when birth the concept, the first investment made, new product ideas are generated, the prototypes are performances and tested, and at the same time sales have not begun.
- ✚ **Introduction** - This is the phase in which the products are developed and introduced in the market area. The first stage of the life cycle of the electric car has been set. The products are launched on the potential market, as well as various activities are undertaken to attract more customers.
- ✚ **Growth phase** - When the introduction period of the product is completed, then the growth phase begins. The EVs product will grow in the market area. At this stage, sales of the product will increase, and it will become increasingly known, attractive and preferred by customers.
- ✚ **Maturity** - In the third phase of the product life cycle, electric cars will reach their maturity. The mass of customers has information about the product, know it, like it and prefer it. This is the stage of stable sales.
- ✚ **Decline** - This is the last phase, and in it, the products will lose their value in the market area, sales will decrease. Electric vehicles will not be in demand or will be in short order on the market. There will probably be other vehicles of the future that will dominate the market (Hawkins et al., 2013).

### Assess at which key stage of the product life cycle is the electric vehicle

Electric vehicles are relevant in the growth phase. This is one of the most useful periods of the product life cycle, and at this stage, the company will be able to realise

more sales and profits. In the process of growth, the products on stage are more attractive to customers of electric vehicles. The costs for marketing and promotion are lower compared to the moment of product introduction. The scene of growth is taken for the time in which sales, revenues, together with business profits, begin to grow (Nordelöf et al., 2014).

### Assess at which key stage the electric vehicle was five years ago

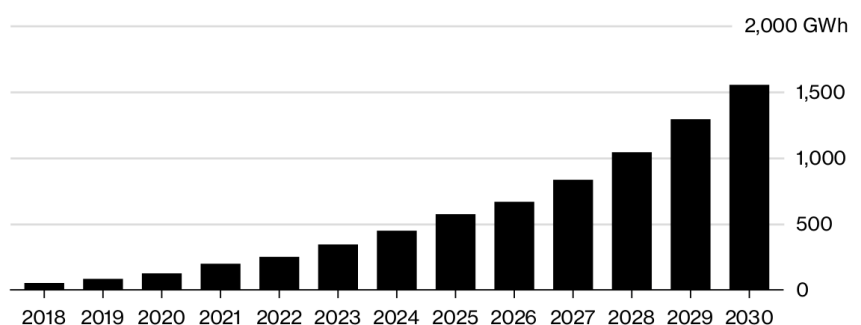
The electric vehicle products were at the introduction stage 5 years ago. This is the first stage in which the newly developed products are launched on the market. During this period, potential customers receive information and get meet with the product for the first time. The implementation phase is considered most expensive for the industry as it requires costs for product development, market positioning and branding, costs for mass advertising and familiarisation of consumers with the benefits of the product, costs for continuous quality control and many others. At this stage, the company's goal is to promote the electric cars along with its features to attract more clients to the product (Nordelöf et al., 2014).

### Assess which key stage the product will be in the coming years

In the next 5 or 10 years, EVs products will come out from the growth period and enter the maturity phase. Both stages are efficient and profitable for the automotive industry. The scene of maturity is considered at the peak of the product life cycle. With this level, the price is low, as the target customer has complete information about the products and their characteristics. At this stage, the products will be able to give more revenue to the company by reducing the advertising and promotional costs of the organisation.

#### Powering the Future

Battery demand will soar as electric cars become the norm in the next decade



\* Figures reflect passenger car battery demand only  
Source: Bloomberg New Energy Finance

**Bloomberg**

Source (Bloomberg, 2020)

According to the above assessment of the different stages of the vehicle product, it can be determined that each step of the Product Life Cycle is significant and will have a high impact on the overall performance of the product. It is vital for the industry to develop relevant strategies according to the stage of the product life cycle and to follow them.

## **New opportunities and discontinued business**

New opportunities are opening for the automotive industry and the production of electric cars that will help increase sales and business profitability. Manufacturers must identify and analyse client needs while developing electric vehicles. This will help to create high-quality products that lead to customer satisfaction. Electric cars offer modern mobility to their consumers (Cui et al., 2019).

Due to the increasing demand for electric cars, all those companies that produce vehicles with conventional engines will be closed. The goal of the modern automotive industry is to reorient its production capacity to the production of electric cars. Thus, it will meet the requirements for environmental protection, care and conservation of resources and will remain on the market as a lucrative economic field.

## **Conclusion**

From the above report, it can be concluded that various factors affect the productivity and efficiency of the electric vehicle industry. The Value Chain model is operative in identifying and analysing different types of activities that will affect the production and sales of electric vehicles. There are several external factors of the business environment (PESTEL, Porter's Five Force, which I examined in Assessment 1) that will support making the correct business decisions for growth and development. Besides, the Product Life Cycle is a process showing the diversified stages through which a product move. In conclusion, I would like to add that the modern vehicle industry is an essential, expensive, necessary, exciting industry. In it which there is room for scientists, researchers, highly skilled workers, and those who love cars.

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