

Global Business Environment Assessment 2

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Table of Contents

Introduction	3
Application and discussion of porter's value chain to electric car industry.....	3
Inbound Logistics	3
Operation.....	3
Outbound logistics.....	4
Marketing and sales	4
Service	5
Firms infrastructure	5
Technology.....	6
Procurement	7
Conclusion	7
References	8

Introduction

The value of the global electric car market is estimated at \$162.34 billion in 2019 which expected to touch \$802.81 billion within 2027(Lane, 2020). The highest amount of revenue is generated from Asia-Pacific area in Electric car market. Plug-in and hybrid electric cars constitute 10% of overall car registration in the UK till May, 2020 (Statista, 2020). The study discusses Porter's value chain model with respect to the electric car of Volvo. Volvo manufactures electric cars which is known as "XC40 Recharge Pure Electric" which is the first electric car production of the organization. It is expected that the model will be started to be delivered in the UK from the beginning of 2021.

Application and discussion of porter's value chain to electric car industry

Porter's value chain model refers to the combination of primary and secondary activities which are undertaken by an organization to develop value for the customers.

Primary activities include five major functions of an organization related to manufacturing and selling of electrical vehicles of Volvo which are described below (Simatupang *et al.*, 2017) It includes production of electric vehicles to transfer to the customers.

Inbound Logistics

Bashir and Verma, (2017) explained that inbound logistics refers to the suppliers of raw materials including receiving, arranging and allocation different resources of the product. That's it covers various activities like inventory control, warehousing, material handling and others. Electric cars include fuel cells and battery electric vehicles. That's why Volvo starts with ten potential suppliers in order to get a long-term electric vehicle battery and then after evaluating them Volvo selected two suppliers including LG Chem and CATL (autonews, 2019). The two suppliers are selected on the basis of its sustainability, product quality, openness and program timing. Further both suppliers have global access which is extremely beneficial for Volvo because it helps the organization in effective inventory control through reducing supply risk, so both LG Chem and CATL supplies Volvo for its Europe, China and the US manufacturing unit.

Operation

It refers to all the different activities of Volvo that transfer all input into the final electric vehicle (Fontainhas *et al.*, 2016). The operation of Volvo starts when it decides to manufacture a full

electric car as it is the first producer of full electric car in the UK. That's why it inaugurated a new assembly line of batteries which enables the pure electric car to reduce carbon emission by 25% within 2025 (telegraph, 2017). The company planned to launch five pure electric cars within 2019 to 2021. Three out of five electric cars will be models of Volvo and the rest of two will be the range of Polestar Volvo cars. The electric cars of Volvo are supplemented by a series of diesel and petrol plug-in. Thus, the operation of Volvo cars includes advanced manufacturing facilities, so it decided to establish an electric battery plant in South California through investing \$600 million (Gómez Vilchez and Thiel, 2019). It helps the brand to reduce the transportation cost in the US region.

Outbound logistics

According to Rajahonka and Bask, (2016) outbound logistics refers to the activities which help in storing and delivering the products to the customers including storage, distribution, transportation and others. Volvo has nine dealerships in the UK in order to ensure effective access to its electric cars across the country where Marshall Motor group is a major dealer of the organization which supports it to transfer electric cars from manufacturing units to customers. Marshall motor is operating to the motoring customer from past 100 years and it is the largest representative of Volvo which caters customers with efficiency and integrity (Volvocars, 2018). The long-term dealership helps the brand to distribute electric cars of Volvo in the UK. Distributors like Marshall helps Volvo to reach different locations of the UK which ensures effective distribution of the organization.

Marketing and sales

Vaid *et al.* (2020) explained that marketing and sale refers to the activities that are performed by an organization for promoting the product in order to enhance sales of the organization. In the case of electric cars, marketing activities play a significant role because they create awareness about the importance of using electric vehicles because of environmental issues. Volvo adopts a unique marketing strategy for enhancing the sales of electric vehicles like it launched "Take Charge electricity" offers in November 2019 which enables customers of plug-in hybrid cars to get reimbursement of expenses related to electricity that has been generated through charging the car during the 12 month period (volvocars, 2018). The offers were available for different electric car ranges of the organization including luxury seven-seater car models, XC90 and premium SUVs under XC40 range. It was previously applicable for the buyer who purchased Volvo electric car models within 30 June, 2020 but later it was extended to 30 September, 2020. This marketing strategy is used by Volvo for encouraging car users to

shift towards full electric cars. The offer works through calculating the electricity expense related to charging from June 2020 and the company will repay the amount at the end of 12 months duration (automotiveworld, 2020). The consumed electricity by the car is measured through the “Volvo On Call” app. It helps the brand to promote its plug-in hybrid models of cars as Volvo is considered as leading company plug-in hybrid electric cars.

Service

As per Grieger and Ludwig, (2019) services refers to the activities which are procured on the basis of the core product in order to create a customer's purchasing and consumption experience. Customer service is an important element of the electric car market because it is a new concept in the automobile industry, so meeting customer requirements is an important element. Volvo provides Service Plans for all of its products including electric cars which enables customers to get regular servicing facilities and the customer can buy the car within 48 months after registration (volvocars, 2018). The servicing plans are developed on a monthly basis without interest. It provides a personalized servicing facility because different customers purchase different range electric cars and they have various queries or issues different from each other. Further, alternative transportation is provided by the organization when customers are in the service period. Thus it can be understood that personalized servicing facility provided to the customers helps the organization to create value in its core products of electric cars and other cars.

Supportive activities of porter's value chain model provide its assistance for primary activities which are described below with respect to electric cars of Volvo (Kingkaew and Dahms, 2019).

Firms infrastructure

Vilchez *et al.* (2020) explained that firm infrastructure refers to the facilities that enable an organization for producing the products. Electric car manufacturing requires advanced facilities in order to ensure the production of electric cars in an effective manner. That's why Volvo committed to make a “flawless launch” of a full electric vehicle through enhancing manufacturing facilities in its electric car factory in Belgium. The organization enables its Belgium manufacturing unit to manufacture electric vehicle batteries in three shifts of a day which ensures 24hours production of batteries which is utilized in rechargeable car manufacturing process. Irrespective of delivering battery manufacturing facility the company developed a deal with South Korean company, LG Chem for supplying “78kWh XC40 batteries” as many top manufacturers like Audi and Jaguar faced challenges in terms of battery in the production process of electric cars. The company consists of a manufacturing facility in

its 5000 square meter manufacturing unit of Ghant which has capacity of producing 100 cars in a day. Such infrastructure enables the organization to set a target where 50% sales will take place for electric vehicles. That's why the organization has invested € 150 million for improving its infrastructure facility in order to manufacture electric vehicles (Schmidt, 2020).

Human resource management

According to Stewart and Brown, (2019) human resource management refers to all the activities which control employees of the organization. Volvo group has a total 81,000 employees across the world who ensures the organization manufactures electric cars with efficiency and achieves the sales target of the company (volvogroup, 2019). The company believes that employees help the organization to successfully operate in the electric car industry. The HRM department of the organization stands for gender equality as the organization targets to achieve "35% female leaders" within the year 2030. The organization took initiative "eachforequal" in order to develop awareness among collagenous of Volvo regarding gender equality. It develops a series called #womenOfVFS" where it shares incredible jobs of 12 women in the financial department of the organization on how they build careers within the organization (volvogroup, 2020). Further, employees help customers to understand the function of electric vehicles because they are new types of vehicles. Thus, employees convince customers in purchasing electric vehicles through ensuring the quality service of the organization. Thus, HRM plays a crucial role in the electric car industry. The effective HRM team of Volvo hires new Research and development head in order to develop cars under Polester Volvo series in 2018.

Technology

Technology has been an integral part of electric cars as the hype of smart cars has been reduced with innovative electric cars (Bi *et al.*, 2018). Technical development has enabled the car industry to develop electric cars where the car runs through batteries. Further, there are hybrid models which can run on batteries for only 20-30 miles. However, technical innovation of Volvo enabled the organization to launch full electric cars, so the organization required long-term batteries as its manufacturer car which can run over 200 miles with a single charge of a battery. Research and development team helps the organization in technical development through enabling it to produce batteries for full electric cars. The innovation of technical development enables the organization to provide a completely different experience to the customers. Volvo also considers the driving challenges in rough roads in its technical innovation while developing electric cars. Hans Pehrson appointed as head of the research and

development department of Volvo who act as a driving force for technical development of electric cars of Volvo (Evans, 2018). Not only car technology but technical efficiency of the organization enables it to get online booking for “Volvo XC40 Recharge” through depositing \$1000. Therefore, it can be illustrated that technology helps in providing effective service in the electric car industry.

Procurement

Explained that procurement refers to the activity related to the purchasing function of the organization (Bienhaus and Haddud, 2018). It supports Volvo in purchasing decisions of batteries from CATL and LG Chem for manufacturing electric cars effective procurement facility also helps the organization in manufacturing batteries for its electric car production.

Conclusion

The study reflects that Porter’s value chain model helps to explain different competencies of Volvo which enable the organization in manufacturing full electric vehicles in an effective manner. Producing electric vehicles requires a lot of manufacturing facilities along with strong supplies and distributors in order to sell the product effectively to the customers. It has been understood that Volvo made investment in order to get technical facilities and enhance the production process of the organization. Further it has strong primary activities of porter’s value chain which enables it to operate in the electric car industry. Supporting activities like technology, human resources management, infrastructure facility helps the organization to serve customers efficiently in getting an electric car. Volvo ensures effective customer service and marketing initiative for enhancing sales of the organization.

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