**Level\_7\_Business Innovation and Enterprise Innovation analysis17-18**

**Case study –Tesla Driverless Car**

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# Introduction

In the 21 century, the era of globalization brought many changes. Business refers to making of different products and offering various services to customers, through which they can lead to market. There are many factors that make business successful in which innovation become a key player. Innovation refers to a new idea or complete transformation of products and services of a company. With help of innovation, every business can lead in the market and make their position more strong. There are many companies, in which innovation becomes an integral part of the business process such as Apple, Facebook and Tesla (Tesla Autopilot, 2017). Innovation also supports a business by leading with creativity and introducing newer technologies in the company. Tesla is one of those organisations which have prime focus on innovation and advanced technology.

Tesla Inc. was founded in the year of 2003. It is USA based company which is mainly focused automaker, energy Storage Company, and solar panel manufacturer. The company is known for manufacturing electric car. The founder of the company is Elon Musk who currently is also the CEO of Tesla. The company conducts its business operation worldwide. The first model which offered by company Model S which was the best selling plug-in electric car in the 2015 and 2016. The company sells more than 150,000 units in the year of 2016. Tesla aims to disruptive technology so they can target market effectively (Hannan, Hoque, Mohamed and Ayob, 2017).

The present report is based on Tesla motor products innovation. This report makes focus on the market condition for Driverless car. It also includes different market analysis and innovation which are taking place in the market. At the end, it gives a recommendation for adopting a best competitive strategy in order to long-term business success.

**Analysis of success/failure of Tesla Innovative Product Driverless Car**

SWOT Analysis of Tesla Innovation

Tesla becomes the first company in history which offers an electric car for their consumers. It is one of the most innovative companies in the world because of its advance and high tech security features. In the next segment of car development, the company tries to develop autopilot car. In the present work, Tesla offers only semi-autonomous car but the organization is looking forward to developing a fully driverless car (Dalvagas, 2015). The company is planning to launch the car in 2019. However, the automotive industry is highly competitive due to that the business has to face a lot of the problems. There are many other companies which are also planning to launch driverless cars. In highly competitive business world, there Tesla needs to develop effective business strategies. Following is the SWOT analysis of Tesla’s new innovation.



Figure 1: Model X

**Strength**

Tesla is a well-recognized brand. Apart from its vehicles, the company is also known for the sustainability of products. The brand has gained a reputation on the global level. Brand recognition is an important factor that generates high level of sales for the company. Tesla model is also known for its sustainable model innovation. From solar products to its energy storage systems, all are known for its sustainability. Both its Model X and Model S are fully electric, high-performance vehicles with exceptional functionality. The sale of Tesla products at the global level is increasing day by day. Company revenue increased $2.16 billion, or 63% to $5.59 billion in between 2015 to 2016 (Tesla, 2017). Tesla super network charger plays an important role for widespread adoption of Tesla products.

**Weakness**

Tesla motors offer high-quality products with innovation. However, cost of the products is very high. The concept of the driverless car is a fast-growing concept but it is not affordable by the middle-class consumers. Apart from model 3, model S and model X are very costly. Even the Model 3 is somewhat high priced for the middle-class consumers in developing countries (Itani and et.al., 2017). The high cost of car is main weakness for Tesla. Another weakness for the company is its low presence in the market. Tesla model is based on the super network charger but to developing such type of network, organization needs to make a huge investment.

**Opportunities**

The era of 21st century has grown fast on sustainability. Consumers are demanding more of environmentally friendly products. Tesla motor has become generating high quality and pollution free products for their customers. The electric car concept helps to keep environment pollution free. It can become a growing opportunity for Tesla motors and help to keep generating more consumers’ demand (Chopra, 2017). The Asian market is heating with growing demand for automobile products. The company can focus on expanding its demand in the Asian market. Autonomous driving technology becomes the fast-rising trend in the world. Apart from Tesla, there are many other car brands that are working in asimilar direction.

**Threats**

Tesla motor is facing high competition from the luxury brand and environment-friendly brand. Companies like BMW and Audi are offering high price and low price products to their buyers with high fuel efficiency. It leads to high competition in themarket for the Tesla. The company needs to bring more affordable products to their buyers so the business should break the image.

Strategic external analysis and forecast scenarios and likely opportunities for product innovation.

 The Tesla motor is the premium motor company. Its innovative approach and effective market network help to thecompany for increase business opportunities. In the present era, due to consumer awareness demand for the electric cars increase. In the driverless carsegment, the company has wide opportunities in the automobile industry. However, in the expanding of thebusiness network the company has to face high competition and threats from their competitors. Apart from the Tesla, other car companies also making anelectric car for their buyers. Following is anexternal analysis of Tesla Company (Kissinger, 2015).

**Political factors**

The political stability of the country createshuge impact on the company’s growth its and products expansion. Tesla is theUS-based brand and the government is also promoting electric car. In the world, there are many nations which are facing high pollution. In order to overcome this problems government is also promoting such practices through which they can maintain environment pollution free. The government is also increasing theincentive for the electric automotive and expanding the free trade agreements. Through which the company can expand their market in other nation as well (Mangram, 2012). On the other hand, the political stability of major market makes remote or macro environment favorable to the company’s market penetration strategies. So political factor, bring more opportunities for the Tesla motors.

**Economic factors**

Tesla business performance benefits from the lower battery costs. The renewable cost adds more attraction to the company’s products and it also helps to business for attracting to more customers in the company. However, the Autopilot system in the new model is quite expensive so, it is possible that the business cannot perform well in the Asian and European market because of economic instability. The Asian market highly prices sensitive and Tesla products are quite expensive.

**Social factor**

The low carbon products and renewable energy products raise the demand for Tesla products. These external factors increasing demand the company’s electric driverless cars and related products. The driverless products can become more popular in the young generation and people who want more safety features in products. In the present time, the consumers have become more aware and also raise demand for the eco-friendly products. So these factors lead expansion opportunities for the Tesla motors (Lieberman and Kline, 2017). In addition, Tesla has an opportunity to boost its financial performance based on the increase in the distribution market.

**Technology factor**

Technology plays an important role for Tesla motors. These external factors help to the company to increase its potential rapid obsolescence of technologies used in its products. Use of solar batteries and its related technology help to gain more customers. In addition, in the business process, the company is also using automation technology (Kancherla and Daim, 2018). The online mobile systems also help the company to increase its quality of products and add an extra feature for safety.

**Legal factor**

In the automobile company, the main legal factor which impacts the business is safety. Tesla has the opportunity to expand its business overseas by considering expansion of protection for its international patent. In addition, the company also has the opportunity to expand its business through the energy consumption regulation that client organizations must follow. At the international level because of free trade agreements and internal trade Agreements, company made a direct sale in the other countries. However, there are also some threats available for business. The expanding the business the company needs to follow other legal agreement and regulations of another state which can become potential threats to the Tesla.

**Environmental factor**

The environmental factor has a favourable impact on the Tesla motors. It helps the company for promoting its eclectic cars on raising concern on climate change and expanding environmental programs and rising standard for disposal (Voigt,Buliga and Michl, 2017). Through this, the company increase demand for its products and also bring significant growth opportunities.

**Forecast scenario and product’s growth opportunities**

Tesla motors placed to be at forefront of a re-thought and revitalized world-order in mobility. In the scenario of the automobile industry, Tesla has to face huge competition from other companies. For example, use of the disruptive trends transforms the automotive industry. In the forecasting scenario, the automobile industry is full of challenges and uncertain. The impact of the disruptive technology is changing consumer demands and their desires. There are many customers and the people who want to adopt the mobility in their car systems. Tesla no doubt is one of the most innovative companies in the present time. In the Forecast scenario, over the last five years, the automobile industry has grown. The consumers become more demanding and the aware regarding the products used by people (Kolb, Miller and Jung, 2016). At the same time, the company is also investing billions of dollars in the electric cars and the powertrains.

Tesla Motors is known for its sustainability in the products because the major car components are operated by the solar energy and the sustainable energy. The similar approach is also used in the previous model such as model X and model S. These models were positioned as medium volume and high priced model. The model 3 especially known as the Autopilot project becomesgrowing achievement. The company already booked 300,000 pre-orders and the consumers around the world are also show desires for zero-emission car (Martin, Bishop, and Boies, 2017).

In the present time, the major concern around the world is adopting such technology which makes the environment pollution free. Tesla is also looking forward the eclectic car segment where the company is using the solar systems. The rise in the environmental protection and reduce the CO2, growth for the products is high. In addition, the driverless cars become more popular because it helps to people for experience new things and also provides extra feature for safe riding.

# Business issues and their potential as per current industrial environment

Whenever a company plans to launch a new product or service in any market, significant analysis and study of the industrial environment are performed. It helps in gaining insight regarding current market trends and the possible threats which might ruin executed strategy. Functioning as the strategic leader of the automobile industry, Tesla has been empowering its production unit with a vision to manufacture automobiles that reflect technological developments (Digani, Sabattiniand Fantuzzi, 2014). Driverless cars are a consequent example that depicts that Tesla offers exemplary services to customers worldwide.

Currently, automobile industry is experiencing shifts in buying behaviour of customers. Despite a consequent increase of 63% in revenue from 2015 to 2016, Tesla figures out intense competition in global automobile markets. Companies like Audi, Toyota, BMW, Volkswagen, etc. are creating products that are equally competent with Tesla’s automobiles. However, there are trends of the automobile industry which are relatively more effective in influencing strategies and decisions of major corporations of the field (Sakhaiiand Vatani, 2016). Digitalisation, automation and virtual presence are some of these market changes that have affected business functioning in the automobile industry.

From the use of digital sources in buying a car to the inclusion of digitalised amenities in the car, use of digital technology is quite prominent. A potential issue recognised here is the need to develop e-commerce platforms by automobile companies (Lee, Bagheri and Kao, 2014). For Tesla cannot just remain physically present amongst the consumers. The organisation has to ensure that customers are connected with their purchase dealer and the service centre irrespective of their place of operation. This, in turn, indicates that increasing dependency of customers towards more convenient options of purchase has caused companies to opt for such options (Penilla and Penilla, 2017). Tesla’s driverless car product can reach out consumers in different regions through interactive websites and high amount of digitalisation in services.

 Autonomous vehicles shall be streamlined in near future with an amalgamation of different technologies like GPD, sensors, cameras, artificial intelligence and algorithms which ensure broader connectivity. Internet of Things is the potential issue which is currently experienced in the automobile industry (He, Yan and Da Xu, 2014). Accidents and deaths are quite common in the modern day scenario due to illegitimate driving techniques and irresponsible human nature. However, the inclusion of internet of things in the autonomous vehicles helps in reducing aforementioned fatal situations. As per Elon Musk the founder of Tesla Motors, autonomous vehicles shall be costlier in their initial sales cycle. Driverless cars are quite costlier because of inclusion of technology which is not produced widely. However, automobile industry environment will transform completely because of autonomous vehicles (Digani, Sabattiniand Fantuzzi, 2014).

Cyber-security and internet crimes are increasing exponentially due to lack of legislations and proper guiding materials for users. People are less aware of certain important facts regarding disclosure of sensitive information over the online platforms. This is creating barriers for the automobile industry companies that have transformed their manufacturing processes as per internet requirements (Sakhaiiand Vatani, 2016). It is good to have all devices connected because it supports lesser fuss in accumulation and management of data. However, cyber-security is evolving and causing great threats to confidential data delivered over clouds and big data management software of business organisations.

Production and manufacturing of automobiles lead to accumulation of waste and by-products. Hazardous waste has a severe negative impact over the environment and living beings (Lee, Bagheri and Kao, 2014). It contributes to global phenomena like greenhouse gas emissions and global warming. Automotive suppliers are largely benefitted by waste management because of lesser costs involved in the arrangement of waste. Tesla and its competitors are experiencing severe backlash from non-government organisations due to improper waste reduction techniques. Furthermore, an inclination of businesses towards sustainable processing techniques is influencing consumers to purchase those products that do not breach sustainability laws (Penilla and Penilla, 2017).

From the evaluation of automobile industry environment, it is clearly stated that introduction of automated vehicles or driverless cars by Tesla is maximising profits from current opportunities. With increasing demands of customers for such fascinating products is enhancing them to pay beyond set limits and purchase the car. However, there are several issues like lack of digitalisation, e-commerce operations, improper waste management and deposition of hazardous waste material in the automobile industry. These are governing decisions of consumers as well as the automobile companies. On the other hand, a critical change that is transforming automobile environment is integration of autonomous supply chain with automation in vehicles. Tesla has to overcome this issue by successfully producing driverless cars.

# Critically analyze the reasons for business failure and develop strategies to avoid the pitfalls.

It is not necessary that every prepared strategy reaches its objectives and provides estimated results. The same principle applies to Tesla’s current strategy of deploying driverless vehicles for attracting customers and transforming the automobile industry. However, following listed are some of the reasons which contribute to business failure.

* ***Improper planning***: The strategy developed for selling or introducing a product fails due to improper planning. Setting up immeasurable goals and objectives misguides the entire working team on that specific project. Right at the creation phase of a strategy, Tesla can experience significant damage to reputation through products and services if vision and objectives are immeasurable (He, Yan and Da Xu, 2014). Furthermore, ineffective planning results in least detection of mistakes or scaling of improvement opportunities. This automatically limits successful execution of strategy.
* ***Lack of communication***: The idea of driverless cars cannot be conceptualised and transformed into visualised product by Tesla if communication is paralysed. The purpose behind specific actions and changes in ideology has to be communicated effectively to every participating person in the company. It helps in reducing chances of misleading the team from set objective (Grant, 2016). Furthermore, communication ensures improvements in performance when situations don’t occur as per prepared plan.
* ***Insufficient knowledge of market***: Market is subjected to continuous changes because of continuous interaction between companies and customers. Brand reputation of Tesla is hampered if strategies regarding driverless cars are not effectively executed. Attributes like product design, correct selection of marketing media, customer perceptions and competitive awareness form the part of market knowledge (Stadtler, 2015). When strategic plans lack in any one attribute of this multidimensional market then consequent failure of the product is experienced by Tesla.
* ***Insufficient quality management***: Often strategy fails in execution due to ineffective management of product quality. Automobile industry was transformed when total quality management principle was launched by one of the competitors of Tesla. The failure of strategy in this aspect for driverless cars can take place when production suffers lack of quality management (Pollard, Chuo and Lee, 2016). Any sort of negligence in manufacturing of the said product to delivery of the same to customers is a part which reflects ignorance of organisation. Hence, overall strategic failure occurs.

Pitfalls are often unrecognised even after proper planning and analysis. The reasons behind these pitfalls have been listed above. Certain strategies have been described ahead for avoiding complications:

1. Development of communication channels is the first step that Tesla has to consider for successful launch of driverless cars. Use of social media communities and different interactive platforms helps in easier communication. Furthermore, team deployed in manufacturing, production, marketing and sales of driverless cars has to be made aware about vision and objectives of the strategy (Grant, 2016).
2. Lower management level employees and executives must be asked for their feedback regarding objectives and goals. Immeasurability of developed objectives reduces because different perspectives are acquired. Necessary improvements are made in time and chances of further failure are consecutively reduced. Tesla’s driverless cars can reach out the customers only when complications in development process are effectively handled (Stadtler, 2015).
3. Pitfall regarding analysis paralysis occurs due to insufficient knowledge of target markets. The number of competitors operating in the same segment and lack of customer perceptions in car design results in lesser acceptability. Furthermore, best approach to plan and execute the strategy is not evaluated when market analysis is weakly performed (Lee, Bagheri and Kao, 2014). Henceforth, strategic tools like SWOT, PESTEL or Porter’s five force model can be used for conducting market analysis.
4. Total quality management principles have to be adopted by Tesla for gaining control over post production practises. In case when owners of driverless cars are facing any sort of issue or problem in handling company can provide service centres and assistance. This helps in maintaining cordial relations with customers and Tesla experiences better strategic management (Pollard, Chuo and Lee, 2016).
5. The most crucial technique for avoiding or handling pitfalls effectively is assigning proper responsibilities to the selected team. Tesla can easily launch its driverless cars with effective team management principles (Sakhaiiand Vatani, 2016). It includes defining roles and responsibilities for the participating individuals. Furthermore, multiple divisions of roles are avoided for reducing chaos and misunderstanding in the organisation. When administration is flexible and accountable then product development is easily accomplished. In addition to this, proper accountability supports easier recognition of mistakes and in time resolution of the concerned issues (Pollard, Chuo and Lee, 2016).

Understand and critically reflect on why businesses must innovate

Innovation can become a key factor for the success of the automobile. In every business, the demand of consumers is always dynamic (**Platinum Asset management,** 2017). In order to fulfill the demand of customers and maintain business operations, companies spend million dollars so they can satisfy customers. There are many reasons available which can justify that how innovation is essential for leading company at the global level.

In the automobile industry, the role of technology is also core for product and production. The fast changing scenario and consumer’s awareness lead business towards disruptive innovation which makes the business faster growing. Tesla also becomes one of the most innovative companies in the industry. Use of innovation and technology make the business fast growing.

**Customer’s attraction**

The main reasons why business must apply innovate because of the growing demands of customers. The company needs to work towards the innovation which makes helps top gain loyalty and satisfaction for the customers. The similar approach is also adopted by the Tesla Company. In the innovation, the research and development department support better products design more different and unique so more and more customers can be add to the project. Tesla uses the solar energy system in its cars products so it helps to buyers to create low pollution in the environment and long-term sustainability of the products (Cooper, Doody,andAllwood, 2017).

**Safety features and low-cost product**

The innovation also leads to safety of products and keep the costs low as much as possible. For the automobile industry which already is facing a lot of challenges, in such time it is essential to provide some extra features which can make products more safe and secure. Tesla products are highly secure because the company uses disruptive technology and technique (**Howell,** 2017). Through which the company easily can add more customers. In addition, the price of the fuel is highly floated at the rate. By making the electric cars and using the solar system Tesla Company can make the product innovative. However, in the present time, the model X and the Model S both are quite expensive and far reach from the hand of middle-class people.

**Provide global connectivity**

At the present time, business is become more innovative and conducting most of the operations at the global level effectively. For the business, it is becoming essential to lead the global network and connectivity. The current business is run by the global policies and its regulations. Tesla is USA based company which is focusing on its global expansion such in Middle East, European and Asian markets (Taumar, 2015). Innovation helps the company to capture global presence and it also helps the company to maintain its present growth and sales. In addition, through innovation, the company can also lead their global demand. However, to lead the global network and demand Tesla need to make strong its distribution network and also the company need to spend money on its research and development so they can easily capture the global market.

**Long-term success**

The innovation becomes an integral system in the Tesla motors. Through which the company, sustain in the market for the long-term and also gain the competitive advantage for the long term. Tesla, in order to keep control, over the market, leads innovation. The demand of customers always changes and innovation helps to fulfill the desire of customers in more accurate manner. Tesla is also promoting the long-term business in the market and the company is also following sustainability in the business model, due to which there are many customers are adding in business day by day (Rowland, 2017). The Solar system and disruptive technology make products effective and unique. It also leads the company towards sustainable changes and development.

Business strategy recommendations to develop competitive advantage

The Tesla Motors is marked as the one of the best company in the world. The company is consciously making efforts for to make their products successful. In the Driverless car project, the company requires a suitable strategy which makes business enable to grow fast (Meissner, Polt and Vonortas, 2017). The best suitable strategy for the company is an intensive growth strategy. With the help of this aggressive market strategy, the business aims to maximize their revenue from the market. Tesla is already generating high revenue from its previous model. Now, the company has aim to produce more unique products for their customers. Another object of this strategy is to provide the intensive growth and brand recognition. Following are the main components of intensive growth strategies.



Figure 2: Tesla Roadster in 2011

(Rowland, 2017).

**Market penetration**

The market penetration focuses on the present market. Under this strategy, Tesla Motor can increase its revenue through the intensive market growth. With the help of the method, company can increase its revenue and also it helps to business to enhance its sales in the current market. Presently the company is offering its products in the US (Chen and Perez, 2017). The major customers of the company belong to the USA, so with the market penetration strategy, Tesla can increase share in the present market. In addition, this intensive growth strategy is also helping to business to gain competitive advantage based on theincreased market share. It can be considered as the aggressive strategy which helps the company to gain market share in the USA.

**Product development**

It is second intensive growth strategy in which the company focuses on the development of products. In the intensive strategy, the company grows by adding more feature products and services for their customers (Dutta, 2017). Tesla currently offers limited products and services to its customers. There are only two model X and Model S. In the next segment of Cars, the company is focusing on the driverless car. In the product development, R&D use the technology through which they can generate less pollution and Zero emission services for their customers. The solar system in the car and other advanced technologies make products more unique with high quality. In relation to competitive advantage, this strategy helps to business to grow the market. However, for this strategy, Tesla needs to make ahuge investmentin R&D and also make sure to adopt ahigh rate of agrowth market.

**Market development**

Tesla Motors, Inc. uses market development as a tertiary intensive growth strategy. This strategy includes entering the new market with to generate more sales and grow the business. The company has limited reach for their customers. Tesla motors have limited number of customers and limited network for distribution. The company needs to expand its business by entering the new business market (Appleyard, and Chesbrough, 2017). Countries like China and India, where thedemandfor such products is high because these countries are facing pollution-related problems. This strategy clearly supports the vision and mission of the Tesla Company and further global expansion and highlight leadership in the automotive industry.

**Diversification**

It refers to the new products in the new market. Tesla applies this strategy, to grow the market and products. However, for adopting this strategy company need to make huge investment and risk are also high. The company wants to create new stationary battery products for a variety of non-automotive applications but this strategy has alow significant impact on the business.

From the above discussion, the best strategy for the expanding Tesla motor is the market development. In the present time, thecompanyhasstrong position in the USA market but lack of presence in another market (DeBord, 2017). Through the market development, Tesla can expand and take advantage of thecompetitive business environment. The market development helps to achieve its mission and vision in more accurate manner. In addition, themarket development also helps to reach its mass customers. The new segment in the car helps to company to expand its business. The company need to identify new market for their expansion so they can ensure the long term success and also ensure to develop long term business relationship with customers in the market.

# Conclusion

Today is automobile industry become fastest growing sector because of its innovation. Through the disruptive technology and its innovative approach companies able to serve better services and products to their customers. Tesla is one of the leading companies in the automotive industry. Through which the company adds more value feature in its products and services. The company is best known for its electric car; apart from that it also serves solar battery and energy storage products for their customers. With the help of innovation and advanced technology, company brings the changes.

As the increase in concern towards the environment, Tesla is able to offer such products which have zero carbon emission on theenvironment. The company is ranked amongst the top brand that satisfies their customers with high rank. From the above report, it is concluded that has the favourable market condition. As, the customers and different nation become aware of the environment, the demand of Tesla products increase. The growth rate of the sales of Tesla increased in the past few years. The success of model X and Model S clearly show that company can easily attract more customers in the business. However, there are also certain problems such limited customers and thehigh cost of the products. Tesla’s product is involved high costs because of renewable energy sources and systems. In the present time, the company has alimited area of in distribution network. So the business needs to make thefocus on the market development. The best strategy for the Tesla Motor is adopting market development strategies so they can survive in the market for the long term.

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