INSIGHTS FROM THE AUTOMOTIVE INDUSTRY – THE CASE OF THE MERCEDES S-CLASS IN THE UNITED STATES

DOAA SALMAN ABDOU¹
NOURAN YASSER²
ANDREW RAAFAT³

Abstract

This paper provides a market analysis which represents a diagnostic procedure for determining the core causes of market behaviour from an economic standpoint. This paper reflects on the role of the automobile industry which has a substantial impact on a country’s growth since it contributes to high levels of employment, consumption, and investment. The goal of this study is threefold: first, use the demand and supply framework to explore the impact of the factors that drive those interactions and forecast future results for the S-class. Second, apply SWOT, PESTLE, and Porter’s model analysis to analyze the product line during the period from 2010 to 2020. Third, assess Mercedes-environment Benz to meet the company’s present and future objectives. Results show no violations of demand and supply laws for the S-class product in the United States, and it is a price-sensitive product, according to the findings. Fluctuations in the elasticities of demand and supply were observed due to the changes in the consumers’ willingness to buy the S-class and the changes in the market conditions which affected the supply over the decade of study. Results show Mercedes’ market opportunities is in a risky situation as the delay in the supply chain reflects negatively and give opportunities to other substitutes in the different market across the globe.

Keywords: S-class, economic growth, R&D, automotive sector, macro-environments

JEL Codes: L17, L22, L86, L82, O31

Introduction

In a competitive setting, market structure is critical for the execution of adaptive company strategies. In the business ecosystem, competitive strategies must be effective and well-designed. The competitive environment in which a company/firm operates is depicted by market structures. The characteristics of the market structure influence the competitive strategies used by a company in that market. Mercedes-Benz is a luxury motor vehicles company, founded in 1901 by Carl Benz, Gottlieb Daimler, Wilhelm Maybach and Emil Jellinek in Stuttgart, Germany. The company began as a business for the manufacturing of gas engines. After an increase in demand, the factory was relocated to a bigger site, while also working on developing car engines. The company’s take-off stage initiated with the K-class after World War one when the two competitors DMG and Benz & Cie merged. The reasons for the merger were the high inflation and low sales that followed after the war. Mercedes-Benz now evolved into the world’s largest producer of automobiles up to this decade. Mercedes has over 20 classes of cars, with different features and innovations (Mercedes-Benz, 2021).

¹ Prof. of Economics, Head of the Economic Department, October University for Modern Sciences and Arts, Cairo, Egypt, e-mail: dr.doaaslman@gmail.com; dsalman@msa.edu.eg
² October University for Modern Sciences and Arts, Cairo, Egypt, e-mail: nouran.yaser@msa.edu.eg
³ October University for Modern Sciences and Arts, Cairo, Egypt, e-mail: Andrew.raafat1@msa.edu.eg

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This paper focuses on the S-class and analyses its demand and supply patterns over 10 years in
the United States. The S-class was introduced in 1972 in Germany, becoming the best-selling
luxury sedan over the years. It is considered an innovational breakthrough for the company as
they utilized the technologies available to the full extent, these innovations were then reflected
positively on Germany’s Gross Domestic Product (GDP).

The automotive industry is considered the largest in Germany as it contributes about
3% to the GDP. In addition, 20% of the country’s exports consist of vehicles (Petroff, 2015).
Germany possesses the biggest automotive market in Europe, as 60% of the Research and
Development (R&D) growth in Europe was created by German automotive. Mercedes places
a major contribution to Germany’s economic development as it attracts various investments
into the country, including foreign investments. As a result, the GDP rises due to investments
being one of its components. In addition, numerous job opportunities are provided all over the
country, stimulating employment rates. The development of vehicles adds to the country’s total
output and exports, leading to high growth rates. Mercedes is considered an innovational hub
in Germany due to its use of technology to create various safety systems (Daimler, 2021).

This paper aims to analyse the demand and supply patterns in the United States of
America (USA) for Mercedes’ S-class over the decade, concerning prices. In addition to
determining the elasticity of demand and supply of the product. The aim is to also investigate
the factors that influence those relationships.

After the above sources are reviewed, the following research questions will be
answered: What is the demand and supply relationships for Mercedes-Benz’s S-class? In
addition, what are the factors affecting the demand and supply?

To test the framework for the industry analysis of Mercedes-Benz’s S class and to test
if a violation occurs. The motivation for this research is to provide insights into Mercedes’ S-
class as the brand’s popularity globally and their success in linking the name of Mercedes to
luxury among all nations despite differences in cultures and tastes in various geographic
regions has motivated the construction of this research. This research is divided into six
sections: Beginning with an empirical literature review to discuss the market type. Followed
by an analysis of the automotive industry using SWOT analysis, a macro analysis: of political,
economic, social, technological, legal & environmental factors (PESTLE) and a Porter Model.
Furthermore, the demand and supply patterns of the S-class will be investigated, by displaying
the descriptive statistics and discussing the various factors affecting those patterns. Finally,
conclusions and results will be drawn from the research conducted.

Literature Review
Theoretical literature
Adam Smith was one of the first economists to address the topic of the free market and
supply and demand. Smith came up with the theory of “the invisible hand” to explain the
importance of a free market. Smith claims in his theory that humans need to have the liberty to
pursue their self-interests, this will eventually lead to an unintentional increase in the common
wealth. He referred to this process as the invisible hand. He also saw that the interactions of
people in the market should not be obstructed by any excessive regulations by the government
and that these interactions would lead to an optimization point. This theory hinges on the
laissez-faire policy in which government intervention is kept to a minimum as there will be no
price controls and a balanced level of inflation. In addition, the market needs to fulfil many
requirements such as having minimal barriers to entry, low transportation costs and several
market participants of equal size (Vasilev & Gesheva, 2017).

David Ricardo (King, 2013) formulated the comparative advantage theory, in which he
defended the laissez-faire model. According to King (2013), Ricardo claims that if the
government does not enforce protection on the market, productivity would increase as the allocation of resources will shift from high cost to low-cost products. In this theory, the comparison between production costs of products is not performed in terms of money but in terms of labour time and resources and used the labour theory of value as a basis for his claims. The theory of comparative advantage is based on several assumptions which are, that employment of factors of production, capital and labour are moveable within the country, external trade is in a balanced state and the market prices display the real costs of production. These are the same assumptions of free trade and are unrealistic and detached from reality, especially in the cases of developing countries.

**Empirical analysis**

This section discusses the automotive sector and its significance on different economies, in addition to an analysis of the market type, barriers to entry, trade barriers in the automotive market and pricing strategies. To begin with, Mercedes is part of the automotive sector. Approximately 4.5% of jobs in the USA are supported by the presence of the automotive industry. They comprise about 1.7 million people directly responsible for the manufacturing, supplying, engineering, and designing of motor vehicles. Individuals in those jobs are responsible for generating about $70 billion in revenue. The automotive industry is critical to economic strength, as it is considered a homogenous consumer in the economy due to its purchases of raw materials, computers, machinery, and advertising services (Hill, Cooper & Menk, 2010).

Mercedes is considered an oligopoly as the market is controlled by a few numbers of competitors, including BMW, Audi, and Cadillac. They account for 52% of the market, with significant barriers to entry. Each company produces differentiated products in terms of technologies, innovations, and qualities, while also setting its prices. The oligopolistic market is also considered to be very concentrated with a fierce concentration in place. (Daimler, 2021). The company supports high barriers of entry to the market, as it produces luxury and innovational cars; therefore, technical barriers are put in place because of the technical knowledge and high costs of starting up similar brands. Meanwhile, the natural barriers also exist in the market due to the economies of scale that Mercedes gains, through the subsidies the company receives from the government. Exclusive resources, patents and copyrights and high government regulations are also part of the barriers to entry (Jolly, 2020).

Trade barriers refer to the variables that affect the number of goods and services shipped across borders. Trade barriers influence the ability of the automotive sector to trade freely between nations. Types include tariffs and quotas. Tariffs are the taxes imposed on vehicles when they cross national borders. The higher tariffs, the fewer cars that will be exported from countries.

Pricing strategies are the policies used to determine how much to charge for a product. Mercedes uses cost-plus pricing strategies, which refers to placing additional costs on the actual costs incurred, in return for the high quality and brand identity offered to consumers. They pay more to receive more. The company focuses on delivering luxury cars to the niche market, so the prices are not slightly compromised. High costs are invested in technologies and materials; therefore, the cars are highly-priced, serving individuals with high purchasing power. Those significant prices are used as a promotion method to enhance the image of the cars and to emphasize the exclusivity of the cars. In addition, the brand also implements the price skimming strategy when introducing new cars into the market, to increase their value-added and competitiveness (Daimler, 2021).

Collusion is the practice that allows businesses to generate above-average profits through the secret cooperation between brands to limit the competition. Automotive seems to
be colluding with competitors to destabilise the market. The European Union has accused automobile industry giants Mercedes and BMW of working together to limit automotive technology. The automotive industry has been accused of curbing innovation and delaying the introduction of clean emission technology. This occurs to keep costs down (Ivaldi, Jullien, Rey, Seabright & Tirole, 2003).

Mercedes comprises about 3.1% of the global market share, becoming the ninth largest market share in the industry (see Figure 1). On the other hand, the company has a 2% market share in the USA, with about 275,000 units sold to USA customers. 9000 of those were S-class sales in 2020. 14% of Mercedes’ total car supply is sold in the USA. Mercedes has recently developed different lines for different types of customers to gain greater market share over the last few decades. When looking for a Mercedes car, buyers have several options. They all have the concept of luxury but can be divided into several lines and features: E-class, G-class, GLC lines and Maybach (Statista, U. S., 2020).

![Figure 1. Mercedes Global Market Share](image)

Source: Statista, U. S., 2020

Research and Methodology

Using the data for model S-class for the units sold and produced to describe the relationship with the market forces and calculate the elasticity based on data from the company's financial analysis reports for the period between 2010 till the second quarter of 2020. This paper uses the regression equation to test if the decision for buying the curve referred to the price or not during the period under study. Furthermore, the study uses the SWOT, PESTEL and PORTER model to reflect on the industry's core success factors.

Demand driving factors

Mercedes’ luxury cars compete with Porsche, Jaguar, Maserati, and others on the market. In this situation, it is clear that Mercedes will lose money if it lowers the price of Mercedes cars and gains market share. The reason is that targeted customers are looking for high quality branded products at exceptional prices and prefer to offer expensive products. As a result, lowering the price of Mercedes will lead these customers to the more expensive alternatives mentioned above, gaining a premium image and reputation (Salman, D. M., 2019).

Consumer’s Budget

Mercedes’ customers have a large budget for luxury goods, so it's not plausible to argue that falling prices tempt them to buy Mercedes. The first exhilaration maybe because some consumers consider owning a Mercedes to be a result. Still, those who understand that it's easy to buy such or similar cars, which are their main target audience, rarely turn themselves to...
Mercedes. Adjustment period. At this point, the fall in Mercedes car prices can be said to attract many buyers who want to drive a car at first. Even high-end consumers who can easily buy other luxury cars will prefer to get the Mercedes brand. However, if a major target customer group switches to more expensive cars such as Jaguar and Maserati, Mercedes could lose its brilliance as the most expensive car brand (De Silva, Khatibi & Azam, 2020).

The validity of the relationships, factors affecting them, and price elasticities will also be discussed. No violations of the law of demand, which states that an increase in prices influences a decrease in the quantity demanded, have been witnessed for the S-class. The demand curve has a negative relation, which indicates that the S-class is price sensitive, and consumers are responding to changes in prices. An increase in the prices has led to a decrease in units demanded, except for the 4 years from 2011 to 2014 when a rise in the S-class’ prices still caused an increase in the demand, as seen in Figure 2. Individuals were in the market for luxury vehicles and substantial budgets were allocated; therefore, the increase in prices has not affected them during the 4 years. Mercedes was making up for the losses made because of the 2009 recession in the United States. However, the following years witnessed a significant drop in demand as prices were getting higher over time. The demand over the decade has been fluctuating, due to the constant changes in consumer preferences, which is one of the factors that has affected the demand for the S-class over the decade. Consumers have been demanding hybrid cars over the past couple of years, which were not introduced in the S-class as of 2020. In addition, the demand has significantly declined by about 4000 units in 2020, because of the pandemic that has affected individuals’ incomes in the United States. According to the demand equation, an increase in price by $1 causes a decrease in the quantity demand by almost 5 units.

**Figure 2.** Demand Curve for the S-Class in the United States

![Demand Curve for the S-Class in the United States](https://www.goodcarbadcar.net/mercedes-benz-s-class-sales-figures)

**Elasticity of Demand**

The elasticity of demand considers the consumers’ changes in demand when price changes are introduced. The elasticity of demand for Mercedes has fluctuated over the years, with 5 years having an elastic demand, where the quantity demanded was heavily influenced by the changes in prices. These fluctuations were due to the multiple substitutes of the S-class available as Mercedes has many competitors who offer luxury cars as well. On the other hand, the rest of the decade witnessed an inelastic demand as there were slight changes in quantity demand when prices increased. The consumers’ choices were not influenced by the price changes as substantial budgets were allocated to the S-class, so changes in prices didn’t discourage the target market from buying the S-class.
Supply driving Factors

Mercedes-Benz creates unique and innovative car designs, they are compared to German car producers (Audi, BMW, Porsche, Lamborghini). However, these companies will cover the main costs of building a car. Steel, iron, plastic, aluminium, and glass are the raw materials for making automobiles. Profit margin is a variable cost because it is controlled by changing the global price of that particular resource. Mercedes-Benz considers labour costs to be variable because workers’ incomes vary by economy and country (Oliva, 2021). Employees with high status receive a fixed annual salary. R & D is one of the most important costs of Mercedes Future. This of Benz is determined by the ability and level of competition, and the possibility that Mercedes-Benz has the money to invest the money. Prices for factories, dealers, office buildings, etc. are often overlooked. This is a fixed cost, but the variable cost is the maintenance of these buildings. However, shipping charges may change over time. As the prices of the raw materials used to go down, the supply increases (the curve shifts to the right), and the same applies to technological advances, changing market sizes, and even changing expectations for luxury cars. For example, Mercedes-Benz is insensitive to changing demand because it produces a certain number of cars each season based on projected demand (Oliva, 2021). The global chip shortage as a result of the coronavirus pandemic may not end until 2023, according to Mercedes and BMW, but the impact on car production will be less severe next year (Oliva, 2021).

The law of supply was not violated as a positive relationship was established between the prices of S-class and the quantity supplied. Over the decade, prices were increasing as Mercedes were producing more units across the years (see Figure 3). Mercedes’ acceleration of production was also due to the technology breakthroughs and innovations the company has created across the years, which increased their efficiency in return. The German government passed various policies which influenced the supply, including the subsidies provided to Mercedes which amounted to about $191 million over the past decade. As a result, this encouraged an increase in production. However, 2020 saw a significant decline in the units produced as the pandemic drastically affected the production plants globally due to the long periods of lockdowns. The automotive sector was one of the industries hit the hardest by the pandemic. In addition, the shortage of semi-conductors imported from China has led to a halt in production, decreasing the supply. The trendline has revealed the positive relationship between the price and quantity supplied, indicating that with every increase in price by $1, the quantity supplied increases by 0.0807 units.

Figure 3. Supply Curve

Elasticity of Supply

The elasticity of supply refers to the responsiveness of supply to changes in prices. Mercedes mainly had an inelastic supply over the decade, with an exception for 3 years where the supply was elastic. The price shifts throughout the years had an insignificant influence on the production of S-class, despite the increases in the costs of the productions. As a result, more revenues were generated for Mercedes. This inelasticity has enabled the company to set better pricing strategies. In addition, the S-class is an exclusive and luxurious car, which contributes to its inelasticity of supply. Meanwhile, a notable change in supply was witnessed when the supply was elastic. Mercedes had a quick response when prices were altered and ramped down production. The pandemic has caused elasticity in the supply because production levels fell due to the shortage of semiconductors. As a result, the percentage change in supply was greater than the percentage change in price.

SWOT Analysis

Strengths

To begin with, Mercedes’ strengths are highlighted in its innovations. It is considered an innovational leader as it is responsible for introducing diesel engines, anti-locking brakes, airbags internal combustion engines. The company’s fast adaptation to technologies has enabled a competitive advantage. In addition to holding patents to the majority of safety features, which ensure the safety of its customers. As a result, competitors are kept at bay which strengthens Mercedes’ position. Moreover, billions of dollars are allocated to R&D to enhance the cars produced. This contributes to the GDP, domestically and internationally, as Mercedes’ R&D methods contribute to increasing output and consumption. Finally, the diversification of its portfolio has a significant impact on the company’s growth, as it produces different classes of cars aimed at different consumers. Mercedes’ high levels of brand recognition make it one of the most valuable brands globally (Shaw, 2021).

Weaknesses

On the other hand, some weaknesses have been revealed for Mercedes. The company’s presence as a global brand negatively affects it in terms of minute-long issues having the ability to be blown out of proportion; therefore, adverse consequences occur. Furthermore, the large clientele all over the world leads to slow responsiveness and inadequate customer service which all harm the brand image. Mercedes has been subjected to high levels of carbon dioxide testing which contributes to the pollution (Shaw, 2021).

Opportunities

Opportunities for Mercedes in the market have also been analyzed, starting with expanding its market to more geographical locations. The company already operates in over 70 countries, but increasing those locations is viewed as one of its opportunities. Mercedes could also shift its focus to developing more fuel-efficient hybrid cars to break into the new and rapidly growing industry of hybrid cars. The company’s strong brand image will enable them to grasp those opportunities successful (Shaw, 2021).

Threats

A global brand like Mercedes also faces some threats in the market. The pandemic has drastically affected production due to lockdown measures enforced by the government. As a result, a significant decrease in output was witnessed (Ghosh, 2020). Furthermore, a shortage of semiconductors, which are critical chips used in manufacturing, has been reported worldwide in the automotive industry because chip producers shifting their production to
consumer goods and services. This has placed a major threat to Mercedes as it forces a drop in production and increased customer waiting periods. Regulations introduced all over the world threaten Mercedes’ ability to conduct business (Ewing & Boudette, 2020).

**PESTLE Analysis**

This section aims to analyze Mercedes’ external environment, which includes political, economic, social, technological, legal, and environmental factors. This analysis sheds light on the different factors which impact Mercedes.

**Political Factors**

Mercedes is one of the most popular brands in the automotive sector, so vehicle clearance and its paperwork are extremely costly and time-consuming. Obtaining permits might be delayed due to legislative issues, such as the various tax systems around the world and the import duty charges, which depend on the engine size. As a result, the prices of imported Mercedes cars globally would increase, so the demand for them will decline as individuals would direct themselves towards locally produced cars (Rosenzweig, 2018).

**Economic Factors**

Germany’s economy has been in a stagnant state since the 2009 Eurozone financial crisis. As a result, the country’s productivity has been declining, which affects Mercedes’ output in return. In addition, the rising rate of inflation leads to increased costs of production for the company, affecting its supply. The slowdown of the economy has affected the automotive industry (Rosenzweig, 2018).

**Social Factors**

Mercedes targets A class customers who buy the cars as it gives them a prestigious status and comfort; therefore, they increase their demand for Mercedes cars. However, individuals’ preferences are constantly changing, leading to brand switching (Rosenzweig, 2018).

**Technological Factors**

This is one of the most influential factors on Mercedes, as its brand is based on innovative technologies. The availability of technology and Mercedes’ full employment of it occur because of Germany’s research and development (R&D) infrastructure, which enables the company to develop features to satisfy customer needs. The automotive industry in Germany is considered the world’s most innovative, with high turnovers received from those innovations (Rosenzweig, 2018).

**Legal Factors**

Mercedes’ international presence obliges the company to study the various legal environments in different markets. Consumer and employee protection laws are significant in the market as disobeying them will cause the brand image to deteriorate, decreasing the demand (Rosenzweig, 2018).

**Environmental Factors**

Road traffic is one of the main sources of pollution in the world. Mercedes is obliged to adhere to the different environmental laws implemented in different regions, such as the enforcement of low waste factories and going green initiatives to be taken by the company in their various manufacturing centers (Rosenzweig, 2018).
Porter Model
This section aims to discuss the five elements of the Porter Model, concerning Mercedes. Those five elements include the threat of new entrants, competitive rivalry, bargaining power of suppliers, bargaining power of buyers and threat of substitutes.

The threat of New Entrants
Mercedes is not concerned about the threats that arise from new entrants into the market, as their market share is one of the biggest in the automotive industry, so the entry of new competitors will not affect the company. The automotive sector places high barriers to entry due to the large capital requirements, strict government regulations and economies of scale to enter the industry. In addition, Mercedes has a global and strong brand image that has already been built, which minimizes the threat of new entrants (Pratap, 2020).

Competitive Rivalry
Mercedes is considered to have a highly competitive rivalry due to the high competition in the automotive industry that occurs because of numerous amounts of investments in R&D. Those competitors include Porsche, Audi, BMW, and Volvo. Despite being direct competitors, each company offers significantly different features and designs (Pratap, 2020). The high competition levels in the industry encourage various brands to expand into the market. Mercedes’ expansion techniques date back in history when Daimler-Motoren-Gesellschaft (DMG) merged with Benz & Cie. to gain a higher market share and benefit from the wider economies of scale (Cain, 2021).

Bargaining Power of Suppliers
Mercedes has a low level of bargaining power over suppliers. There are various suppliers in the automotive sector, with each having a small market share, while the automotive manufacturers are of larger sizes. The suppliers don’t have the power to attempt to influence the prices. Mercedes has set extremely specific specifications, so they only select suppliers who meet these requirements. In addition, there are low switching costs between suppliers; therefore, Mercedes’ suppliers don’t entail significant bargaining powers (Kasi, 2017).

Bargaining Power of Buyers
Mercedes has moderately high bargaining power over buyers. There are numerous luxury vehicle manufacturers in the automotive sector, each offering different performances and prices. As a result, consumers get a variety of alternatives, holding the power to influence prices. Information about the different brands can easily be accessed, allowing consumers to make comparisons. Mercedes sets its focus on maintaining a strong brand image to retain the customers’ loyalties and the level of demand. Thus, buyers have higher bargaining powers (Kasi, 2017).

Threat of Substitutes
Mercedes’ threats of substitutes are considered to be medium. The source of the threats comes from competitor brands and other methods of public transportation. The brand’s high market share and prestige have minimized the threats they face from substitutes. The quality offered, customer experiences and brand image are all factors that limit the threat posed by substitutes (Pratap, 2020).

Porter's analysis reflects the importance of the automotive industry to the American economy as a vital pillar to achieving many economic objectives.
Conclusion
This paper has provided a detailed framework for the market industry of the S-class. Reviewing the above information has led to fulfilling the objectives of this research: what are the demand and supply relationships for the S-class in the United States while investigating the factors that influence those relationships? In addition, the hypothesis which aimed to analyze the industry and violations were also tested.

To sum up, Hill et al. (2010) revealed the significance of the automotive industry on the economy as it supports various job opportunities and contributes to R&D all over the world, in addition to the high levels of consumption the industry conducts. Mercedes has been considered an oligopoly due to the few numbers of competitors and high barriers to entry that are placed in the market (Daimler, 2021). Mercedes’ global high market share has placed the company in a position with a competitive advantage and added to its strengths; however, it also posed threats to its brand image. Moreover, Mercedes was mostly negatively impacted by various political, economic, social, legal, and environmental factors but technology on the other hand placed a major contribution to the success of the brand.

It has been established in the paper that the S-class had no violations of the demand laws and the cars were revealed to be price sensitive in the United States. Violations in demand only occurred in 2011-2014 when the quantity demanded increased with the increase in prices. These fluctuations occurred because of constantly changing consumer preferences. On the other hand, supply laws were also not violated for the S-class over the decade. Technology and subsidies from the government were the main factors that accelerated Mercedes’ production. However, a drop in the supply levels was witnessed in 2020 because of the pandemic as expected. The fluctuating demand and supply levels didn’t create a market equilibrium for the S-class and a surplus occurred.

Recommendations
It is recommended that Mercedes starts to implement the use of electric cars as it is an opportunity to innovate and breakthrough into new markets. Providing electric cars to the market will help to achieve a sustainable goal and protect the environment from fossil fuel emissions- which will place the brand at a competitive advantage. The company could continue to generate profits in the future if they continue to create and hold patents for safety technologies. In addition, increasing their market share through expanding into new countries is also recommended.

Conflicts of Interest
The authors declare no conflict of interest.
References


### Appendix

**Table 1. Demand, Supply and Prices of the S-class in the United States**

<table>
<thead>
<tr>
<th>Year</th>
<th>Elasticity of supply</th>
<th>Elasticity of demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>0.94</td>
<td>-0.65</td>
</tr>
<tr>
<td>2012</td>
<td>0.10</td>
<td>0.04</td>
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<tr>
<td>2013</td>
<td>-2.39</td>
<td>-1.40</td>
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<tr>
<td>2014</td>
<td>0.19</td>
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<tr>
<td>2015</td>
<td>2.54</td>
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<tr>
<td>2016</td>
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<tr>
<td>2017</td>
<td>0.29</td>
<td>-0.82</td>
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<tr>
<td>2018</td>
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<td>-0.11</td>
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<tr>
<td>2019</td>
<td>0.13</td>
<td>-1.34</td>
</tr>
<tr>
<td>2020</td>
<td>-2.41</td>
<td>-6.59</td>
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</table>

**Source:** GCBC, 2021

**Table 2. Elasticity of Demand and Supply**

<table>
<thead>
<tr>
<th>Year</th>
<th>Demand (units)</th>
<th>Price (US$)</th>
<th>Supply (units)</th>
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<tbody>
<tr>
<td>2010</td>
<td>13,608</td>
<td>18,719</td>
<td>1,236,989</td>
</tr>
<tr>
<td>2011</td>
<td>12,258</td>
<td>21,995</td>
<td>1,440,315</td>
</tr>
<tr>
<td>2012</td>
<td>12,587</td>
<td>47,990</td>
<td>1,547,057</td>
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<tr>
<td>2013</td>
<td>13,303</td>
<td>46,135</td>
<td>1,699,835</td>
</tr>
<tr>
<td>2014</td>
<td>24,524</td>
<td>70,000</td>
<td>1,838,268</td>
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<tr>
<td>2015</td>
<td>21,934</td>
<td>83,891</td>
<td>2,933,647</td>
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<tr>
<td>2016</td>
<td>18,803</td>
<td>92,164</td>
<td>2,002,997</td>
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<td>2017</td>
<td>15,888</td>
<td>113,169</td>
<td>2,123,947</td>
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<td>2018</td>
<td>14,978</td>
<td>192,160</td>
<td>2,168,496</td>
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<tr>
<td>2019</td>
<td>12,503</td>
<td>219,900</td>
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<td>2020</td>
<td>8,589</td>
<td>232,645</td>
<td>1,925,231</td>
</tr>
</tbody>
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**Source:** AUTOMOTIVE SALES DATA AND STATISTICS (2021) MERCEDES S-CLASS – US SALES. Retrieved from: [https://www.goodcarbadcar.net/mercedes-benz-s-class-sales-figures](https://www.goodcarbadcar.net/mercedes-benz-s-class-sales-figures)