

Automotive Steering Market - Growth, Trends, Covid-19 Impact, and Forecasts (2023 - 2028)

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Report description:

Currently, the Automotive Steering Market is valued at USD 27 billion and is expected to reach USD 38 billion over the next five years, growing at a CAGR of more than 5.5% during the forecast period.

COVID-19 has harmed the automotive industry, particularly the steering market. As a result of government rules and regulations for the pandemic, lockdowns have resulted in the closure of manufacturing plants, resulting in a significant drop in the production of vehicles and automotive components. The pandemic has impacted many business areas, including travel bans, logistics, and a disrupted supply chain that has halted raw material shipments worldwide. In addition, many companies have relocated their operational plants to other countries, causing the market to contract.

Over the long term, the increasing use of steering-mounted electronics, which makes it more intuitive, is one of the main factors driving the growth of the automotive steering market. Over the last two decades, steering has been used to control various automobile dashboard-based functions. Among these features are radio and music, cruise control, climate control, and a number of extras such as call answering.

Moreover, owing to cutting-edge steering-assisted safety technology, steering is becoming more balanced and suitable for driving in a variety of settings and speeds. Steering-assist technologies such as ASR and DSR change the steering feel based on vehicle speed and driving conditions by minimizing lateral and yaw motions.

Among regions, Europe holds the largest share of the steering market. The Europe automotive steering market is primarily driven by growing vehicle production and sales, increasing demand for electric vehicles, and strengthening emission norms, which, in turn, have been increasing the demand for luxury vehicles.

Further, Yano Research Institute Ltd. has released its investigation report on "the global electric power steering (EPS) market." It anticipates that the number of vehicles equipped with an EPS will more than double to approximately 98.65 million by 2035. The market in emerging countries will grow, and the "popularization of steer-by-wire systems for introducing self-driving technology" will be important. The global ESP market will grow, particularly in emerging markets such as India, ASEAN,. The transition from traditional hydraulic systems to EPS will be accelerated.

Automotive Steering Market Trends

Increasing Adoption of Sensors

The sensor located in the steering column measures two primary driver inputs - torque (steering effort) and steering wheel speed and position. Thus, three types of sensors are used in such systems: torque sensor, steering wheel speed sensor, and position sensor. These sensors deliver the signals as inputs to an ECU, which provides an appropriate output to the steering system for an action to take place.

Torque sensors are generally non-contact sensors. The sensor measures the steering force applied by the driver and, thus, enables sensitive control of the electric steering support. However, with the growing technological advancements, sensor products are also being consistently upgraded and improved in the automotive industry. For instance:

May 2022: LeddarTech, a global leader in ADAS and AD sensing technology, has announced the release of LeddarSteer, a digital beam steering solution designed for LiDAR smart sensor developers and Tier 1-2 automotive suppliers.

Moreover, the company may also promote the sensor to manufacturers of EPS, shift-by-wire transmissions, and hybrid systems that use motors as both starter and generator motors. Therefore, major players in the market are developing steer-by-wire systems suitable for all vehicle types. For instance,

March 2022: ZF demonstrated its latest steering systems at Work Truck Week (WTW). ZF's second-generation Active Kinematics Control (AKC) is focused on the North American market by incorporating steer-by-wire technology, the rear steering system now available to EVs, pickups, and heavy-duty vehicles.

August 2021: At IAA Mobility 2021, Schaeffler presented The Space Drive steer-by-wire technology, which sends solely electronic driving and steering directions to the vehicle wheels, paving the path for autonomous driving. Since Generation 3 is based on the AUTOSAR software standard, it can communicate directly with car electronics as well as onboard communication and network infrastructures, allowing it to be incorporated into current vehicle assistance systems.

Such improved sensor products for the EPS system are likely to continue to see increasing adoption among automakers during the forecast period.

Moreover, According to the Office for National Statistics (UK), sales of steering wheels, steering columns, steering boxes, and their parts for tractors, automobiles, and other motor vehicles peaked in 2016, totaling approximately 232 million British pounds. Since then, the value has been declining, which is expected to be around 152.7 million British pounds in 2021.

Europe holds a significant share in the Market

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The electric vehicle market has been rapidly growing across the world. For instance, In Europe, 2021 was a record year for electric vehicle sales. European automakers have been slow to enter the EV market but quickly emerged as key players. Additionally, several governments worldwide have formulated various policies, incentives, and projects to support the usage of electric vehicles.

By 2024, nearly 4% of the new car sales and 7% of the global car fleet are expected to be electric. With the growing electric vehicle sales, the deployment rate of lightweight steering systems (like electric power steering (EPS)) is expected to see a potential demand during the forecast period.

The automotive industry is the largest industry sector in the European Region. In terms of plug-in electric vehicle sales in 2021, Germany was the largest European market. In Germany, 681,900 plug-in electric vehicles were purchased by motorists. Norway had the largest market share of plug-in electric vehicles among European countries.

However, the country's economy struggled over the summer of 2022 due to weak car production, owing to the enactment of new EU-wide emission measurement procedures. With the European Union moving toward the Worldwide Harmonized Light Vehicle Test Procedure, some German automakers struggled to gain regulatory clearance. At the same time, production was also dampened by significant dealership discounts to clear stock before the new rules came into effect.

With the installation of new plants by OEM suppliers in Germany, the addition of lightweight steering systems, such as EPS, in cars is expected to lower the cost incurred on exporting the systems, thus, driving the market toward higher profitability. Moreover, advancements in the sensor technology of EPS and the reduced cost of manufacturing these systems have contributed to the growth of the German automotive steering market. For instance,

December 2022: Robert Bosch GmbH has announced that it will exhibit a number of smart products and solutions for future mobility at CES 2023. Its new "Vehicle dynamics control 2.0" smart control concept employs actuators from various vehicle domains, including braking, steering, powertrain, and suspension.

Thus, owing to the developments mentioned above, the automotive steering market in the region is expected to grow at a rapid pace.

Automotive Steering Market Competitor Analysis

The Automotive Steering Market is dominated by several players, such as Robert Bosch GmbH, ZF Friedrichshafen AG, JTEKT Corporation, Nexteer Automotive Corporation, NSK Ltd, Mando Corporation, and Showa Corporation. These companies have been expanding their business with new innovative technologies to have a competitive edge.

December 2022: Robert Bosch Engineering and Business Solutions (RBEI) opened a new smart campus at HITEC City in Hyderabad to support its software-centric product innovations. The Centre of Excellence is a Technology and Innovation R&D center focusing on the Automotive Engineering domain, focusing on Classical Powertrain, Automotive Steering, and other components.

November 2022: Continental AG announced the completion of the third expansion of its Timisoara electronic components factory. Every year, the Timisoara electronic components factory produces over 17 million units of various products, including control units for multiple technologies such as air suspension, power steering, and many other onboard instruments.

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Additional Benefits:

The market estimate (ME) sheet in Excel format 3 months of analyst support

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