
Market Scenario

Human Machine Interface (HMI) is a type of user interface that allows to connect an operator to the controller for the system to work. It can handle human-machine interaction. The interface between the operator and controller consists of a hardware and a software device that allows the user input to be translated for understanding by the user. HMI is also known as man-machine interface (MMI), computer-human interface or human-computer interface. The interactions in HMI are of two types, human to machine, and machine to human. The interface deployed in HMI involves motion sensors, speech-recognition, and other interactions in which information is exchanged. Some of the most trending HMI technologies are head-up display system, keyless entry, power seats control, and occupant detection. The automotive industry is going through a revolution where technology plays a major role in competing in the industry.

The factors that are responsible for the growth of automotive HMI market are a growing demand in connected cars market, focus on improvement in technology among automotive manufacturers, and increasing sales of passenger and commercial vehicles. The growing demand for connected cars will result in increased demand of HMI in vehicles. The connected car is a standalone device that communicates and interacts with other devices. The use of HMI in the car will allow smooth interaction between the vehicle and its occupants. The user can access various controls in the vehicle through standard or multimodal HMI. The automotive manufacturers are moving towards the development of a technology that will result in a higher market share. The key trends in automotive HMI market are integration of smartphone with HMI, increased safety features, gesture and voice recognition for enhanced HMI, and its wide use in autonomous vehicles. The trend of automotive HMI will result in the growth of the market in future. Also, increased sales of passenger and commercial vehicle in emerging countries will result in higher demand for HMI in vehicles.

The automotive HMI market is segmented based on product, technology, access type, and vehicle type. On the basis of product, the market is segment into voice control, central display, instrument cluster, head-up display (HUD), others. The HUD segment is expected to dominate the market during the forecast period because HUD is used in luxury and mid-sized vehicles. The increased emphasis on reducing the distraction of the driver has majorly driven the segment. HMI manufacturers and OEMs are focusing on the installation of HUD in mid-size vehicles. On the basis of technology, the market is segmented into visual, acoustic, and others. The visual interface technology is expected to dominate the market during the forecast period due to factors such as innovation in electronic systems, integration with display systems, and increased consumer preference for adoption of visual interface technology. On the basis of access type, the market is segmented into standard HMI and multimodal HMI. The multimodal segment is expected to dominate the market during the forecast period because OEMs are shifting their traditional control system with high-tech HMI. The multimodal input systems such as touch screen, haptic feedback, and gesture and voice control are replacing the traditional form of technology such as warning lights, hard push buttons, and rotary controls. The trend of multimodal system is basically due to growing demand from luxury segment. On the basis of vehicle type, the market is segmented into passenger car and commercial vehicles. Passenger car segment is expected to dominate the market in future due to increase in sales of passenger cars in emerging countries.

Automotive HMI Market, By Segmentation
On the basis of region, the market is segmented into North America, Asia Pacific, Europe, and Rest of the World. Asia Pacific region is expected to account for the largest market share due to increased demand of HMI in high-end vehicles. In Asia Pacific, countries such as China, and Japan are becoming manufacturing hubs for automakers due to the lower costs involved. Also, the increase in disposable income will result in increased sales of vehicles. This will result in growing demand for HMI in the vehicles. North America is expected to be the second largest market due to booming sales of luxury car segment. The increased sale of luxury cars will also result in higher installation of HMI in the car, leading to the growth of the market. In North America, U.S. is expected to dominate the market in future.

Key Players

The key players in automotive HMI market are Denso Corporation (Japan), Alpine Electronics, Inc. (Japan), Synaptics Incorporated (U.S), Clarion Co. Ltd. (Japan), Magneti Marelli S.p.A. (Italy), Delphi Automotive PLC (U.K), and Continental AG (Germany). Robert Bosch (Germany), Valeo S.A. (France), Altran Technologies, SA (France), Visteon Corporation (U.S.), Luxott Holding, Inc. (Switzerland), and Voicebox Technologies (U.S.) are among others.

On Oct 2017, Denso developed the world’s largest automotive head-up display with human-machine interface (HMI). This HMI is the world’s largest automotive head-up display with approximately 24-inch projection.

The report for Global Automotive HMI Market of Market Research Future comprises extensive primary research along with the detailed analysis of qualitative as well as quantitative aspects by various industry experts, key opinion leaders to gain the deeper insight of the market and industry performance. The report gives the clear picture of current market scenario which includes historical and projected market size in terms of value and volume, technological advancement, macro economical and governing factors in the market. The report provides detailed information and strategies of the top key players in the industry. The report also gives a broad study of the different market segments and regions.

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