

Service Robotics - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts 2019 - 2029

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Report description:

The Service Robotics Market size is estimated at USD 60.16 billion in 2024, and is expected to reach USD 146.79 billion by 2029, growing at a CAGR of 19.53% during the forecast period (2024-2029).

Service robots offer several features, such as delivering precise and high-quality service and helping users reduce human mistakes and operational expenses, due to which their demand has increased. Additionally, the rapid proliferation of service robot capabilities owing to technological innovations is also among the key factors driving the market's growth.

Key Highlights

- Service robots, both personal (for household, entertainment applications, etc.) and professional (for defense, security, medical assistance, etc.), are gaining significant popularity as technological improvement and the development of affordable robots have significantly enhanced their penetration among general consumers. According to data from the International Federation of Robotics (IFR), sales of professional service robots increased by about 37% in 2021.
- Technological innovations concerning cognition, interaction, and manipulation, have made service robotics more appealing. Technology and other component providers have moved the robotics ecosystem forward. For instance, recently, ABB entered into a strategic partnership with Switzerland-based start-up Sevensense to enhance ABB's new Autonomous Mobile Robotics (AMR) offering with technologies such as artificial intelligence (AI) and 3D vision mapping.
- The aging population of several countries, including Japan and China, is also driving the growth in the medical technology sector, thus, creating a massive market for service robotics in the region. For instance, according to the Japanese government's data released in September 2022, for the first time, Japan's over 75s accounted for over 15% of the population. Such trends encourage companies to invest in products for the elderly, which is a massive opportunity for the service robot providers.
- Service robots are usually deployed for personal/household purposes, like vacuum and floor cleaning, elderly assistance, and

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entertainment. However, several vendors have now started exploring new cases and are focusing on designing robots to perform tasks, such as delivering food and drinks to customers at hotels and airport lounges, handling check-in and check-out services at hotels, and even carrying luggage, which is boosting the demand for service robots.

-However, the factors such as low awareness, especially in developing regions, and the higher cost of service robots are challenging the growth of the studied market. Furthermore, a certain degree of technical know-how is also required to operate these robots, which is a significant challenge for the market's growth.

-The outbreak of the COVID-19 pandemic has had a mixed impact on the growth of the studied market. During the initial phase, the widespread lockdown imposed across most countries significantly disrupted the supply chain, making it difficult for the robot manufacturers to carry out production at full scale. However, the demand has witnessed an upward trend, especially in the healthcare and personal application segment, which is expected to sustain during the forecast period.

Service Robotics Market Trends

Professional Use of Robots to Account for a Significant Share in the Market

- Professional robots consist of field robots, defense, and security robots, medical assisting robots (MAR), public assistant robots, electrical industry robots, and robots for construction purposes. The increasing penetration of digital technologies and automation solutions across these sectors drives the demand for professional robots.

- For instance, service robots are deployed in the construction industry to overcome heavy labor costs, shortages, and accidents. It also helps construct more reliable buildings since there is less chance of human error. Technologies like 3D printing and demolition robots further act as catalysts in adopting robots in the construction sector.

- Exoskeleton robots are used as public relations robots. Most public relations robots are used to assist customers in finding an item or completing a task. These robots are deployed in retail to guide customers around a store and in the hospitality industry, banks, shopping malls, family entertainment centers, and more.

- Major application areas for professional robots are transportation, hospitality, medical, professional cleaning, and agriculture. Transportation was among the leading consumer of professional robots in the aforementioned year. For instance, according to IFR, about 121,000 professional service robots were sold in 2021 - more than one out of every three built were targeted for the transportation of cargo and goods.

- Service robots are used in medical and healthcare for various applications, including diagnostic systems, robot-assisted surgery or therapy, rehabilitation systems, etc. The outbreak of the COVID-19 pandemic played an important role in driving the demand for robots across the sector. For instance, according to IFR 2021, a 23% growth in the sales of medical robots was recorded in 2021, with the number of shipments touching 14,823 units.

Asia Pacific to Exhibit a Significant Growth Rate

- The Asia Pacific is one of the fastest-growing regions in the world, owing to the presence of a large consumer base, among which the demand for service robots is increasing, especially in countries such as China, Japan, South Korea, and India, among others. For instance, according to IFR, in 2021, the sales of professional robots grew by about 30% in Asia.

- Regional governments are also a significant factor in developing a regional robotics market. For instance, India plans to invest in military robotics, and the country is preparing to deploy advanced robotic soldiers in the next few years. This is evident from the fact that in January 2022, the All India Robotics Association (AIRA) announced the beginning of indigenous manufacturing of defense robots.

- A similar trend has been observed across other countries of the region as well. For instance, the Chinese government has

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ambitious plans for the country's robotics industry. The government has listed the robotics industry, along with artificial intelligence (AI) and automation, as one of the priority sectors for high-end development to push forward the transformation and upgradation of the manufacturing industry. This push is expected to raise the global market share of Chinese-made robots.

- Further, financial services companies in Asia are looking to streamline costs to boost dividends to shareholders, maintain profitability, and have a new tool at their disposal that appeals to customers, for example, service robots.
- Some major countries, such as Japan, China, etc., are also witnessing significant growth in the aged population. According to the estimation of UN DESA and the National Bureau of Statistics of China (NBSC), the percentage of the population aged 60 and above is expected to grow to about 38.81% by 2050. Such trends are expected to drive the demand for service robots in the country.

Service Robotics Industry Overview

The Service Robotics market is moderately consolidated, as major players have a significant market presence. However, with the demand growing, new players are also entering the market, driving competition and the market toward a fragmented stage. Vendors are adopting various strategies to consolidate further their market presence, including product innovation, partnerships, acquisitions, etc. Some major players include Daifuku Co. Ltd, Dematic Corp., Swisslog Holding AG, and iRobot Corporation.

In September 2022, Avidbots, a robotics company based in Canada, raised USD 70 million in the Series C funding round. The company primarily develops autonomous cleaning robots and has built Neo 2, a robotic floor cleaner designed for commercial environments such as warehouses, airports, and shopping malls.

In September 2022, Jacky's Business Solutions, a leading B2B technology solutions provider, announced a showcase of its latest iteration of Temi Robot (V3) at the Gitex event. The company launched this new personal assistance robot in the Middle East with Robot-as-a-service (RaaS) business model.

Additional Benefits:

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

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