

Research Synopsis

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Title: “Evaluation of Trends in the Indian Medical Device Market”

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Introduction

The medical device industry in India is a critical component of the healthcare ecosystem, providing essential tools for diagnosis, treatment, monitoring, and prevention of health conditions. Unlike pharmaceuticals, medical devices achieve their effects through physical or mechanical means, ranging from simple tools like thermometers to advanced technologies such as MRI machines and robotic surgical systems. This study provides a comprehensive analysis of the Indian medical device market, exploring its current landscape, growth opportunities, and key drivers. By leveraging secondary data from government reports, industry publications, and market research, the study aims to offer insights for stakeholders, including manufacturers, healthcare professionals, investors, and policymakers.

The Indian medical device sector is undergoing significant transformation, driven by increasing healthcare demands, supportive government policies, private sector investments, and technological advancements. Initiatives like the “Make in India” campaign and the Production-Linked Incentive (PLI) scheme are fostering local manufacturing and reducing import dependency. Additionally, innovations in AI-driven diagnostics, digital health platforms, and wearable devices are enhancing healthcare accessibility, particularly in underserved areas. This synopsis summarizes the market’s structure, growth dynamics, regulatory frameworks, and research methodology, highlighting the industry’s potential to improve patient outcomes and healthcare delivery in India.

Market Overview

Market Size and Growth

India ranks among the top 20 global markets for medical devices, holding the fourth position in Asia after South Korea, China, and Japan. As of 2020, the Indian medical device market was valued at approximately US\$12 billion, with a projected compound annual growth rate (CAGR) of 15%, outpacing the global growth rate of 6%. By 2025, the market is expected to reach US\$50 billion, driven by rising healthcare needs and technological innovation. The diagnostic imaging segment is anticipated to grow at a CAGR of 1.5% from 2020 to 2025, while medical equipment exports, valued at \$2.90 billion in FY22, are projected to reach \$10 billion by 2025.

Market Segmentation

Medical devices in India are categorized based on risk and intended use, aligning with international standards such as those set by the Global Harmonisation Task Force (GHTF). Key market segments include:

- Medical Equipment and Gadgets: 34% market share, encompassing surgical tools and monitoring devices.
- Diagnostic Imaging Equipment: 31% market share, including MRI and CT scanners.
- Patient Assistance and Non-Medical Items: 19% market share, covering prosthetics and wearables.

Key Drivers

Several factors are propelling the growth of the Indian medical device market:

- Government Initiatives: Policies like “Make in India” and PLI schemes encourage domestic production and innovation.
- Private Sector Investment: Increased funding supports research, product development, and market competitiveness.
- Technological Advancements: AI, wearable devices, and minimally invasive technologies improve healthcare delivery, particularly in rural areas.
- Regulatory Reforms: The Medical Devices Rules, 2017, effective from January 1, 2018, provide clarity and align with global standards, enhancing safety and quality.

Significance of the Study

This study is vital for understanding the dynamics and opportunities within India’s medical device market. It provides actionable insights for stakeholders to make informed decisions, supporting the development of affordable and innovative healthcare solutions. By examining the impact of medical devices on patient outcomes and healthcare accessibility, the research highlights opportunities to strengthen India’s healthcare system. Additionally, it addresses challenges such as import dependency and regulatory complexities, offering a roadmap for policymakers to foster a conducive environment for growth.

Literature Review

The literature review underscores the rapid growth of India’s healthcare sector, which employs millions and is projected to reach \$280 billion by 2025, growing at a 10% annual rate. The medical device industry has been pivotal in enhancing healthcare affordability and accessibility, though reliance on imports remains a challenge. Studies, including a 2016 Deloitte report and Niti Aayog’s 2016 analysis, emphasize the role of public-private partnerships, digital technologies, and foreign direct investment in driving growth. The review also highlights regulatory developments, such as the Medical Devices Rules, 2017, which aim to distinguish medical devices from pharmaceuticals under the Drugs & Cosmetics Act, 1940. Global perspectives, such as the WHO’s Priority Medical Devices program (2011) and studies on wearable devices (Nanda, 2018), underscore the importance of medical devices in addressing diverse healthcare needs. Challenges like supply shortages during the COVID-19 pandemic, as noted in Ortiz-Parado (2019), further emphasize the need for robust domestic manufacturing capabilities.

Research Methodology

Objectives

The primary objective is to understand the current usage and acceptance of medical devices in India.

Specific research questions include:

- Extent of reliance on imported medical devices.
- Impact of medical devices on surgical procedures and patient outcomes.
- Preference for locally manufactured devices over imports.
- Cost-benefit perceptions of medical devices.

Research Design

The study employs a descriptive research design, utilizing both primary and secondary data. Secondary sources include industry reports, government publications, and academic journals, while primary data is collected through surveys targeting healthcare professionals.

Sample and Data Collection

A sample of 48 respondents, including industry experts and healthcare professionals, was surveyed to gauge perceptions of medical devices. Non-probability convenience sampling was used, with data analyzed using Microsoft Excel to identify trends and insights.

Ethical Considerations

The research adheres to ethical standards, ensuring respondent consent and confidentiality. Appropriate authorizations were obtained for data utilization.

Conclusion

The Indian medical device market is poised for significant growth, driven by increasing healthcare demands, supportive policies, and technological innovation. With a projected market size of \$50 billion by 2025, the industry offers substantial opportunities for stakeholders. Government initiatives like “Make in India” and regulatory reforms are reducing import dependency and fostering local manufacturing. Technological advancements, particularly in AI and wearables, are enhancing healthcare accessibility and patient outcomes. This study provides a comprehensive foundation for understanding market dynamics, equipping stakeholders with insights to navigate and capitalize on this evolving sector. Further research with larger sample sizes could validate and expand these findings, supporting India’s vision of becoming a global hub for medical device innovation.