

Medical Device Marketing and Future Aspects and Critical Analysis of Strengths and Weaknesses



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Introduction

- Medical devices are formally well-defined by the WHO as any Machines, devices, implants, extracorporeal reagents, software, materials, or other similar or related items used individually or by combining the manufacturer's intentions to use for humans or one or more specific medical purposes, and its primary intended effect is not achieved by immunological, pharmacological, or metabolic means, Such means may assist in its intended function.
- Almost any device used in medicine that is neither a drug nor a nutritional product can be called a medical device. This creates problems for users and regulators. For example, in some cases, drugs are contained within medical devices such as drug-eluting stents. This can lead to confusion, such as in products that use lidocaine gel for local anaesthesia, when inserting a urinary catheter, which is classified as part drug and part device

Classification of medical devices:

Class I Medical Devices:

Definition: A Class I device is defined as a device that is not intended to support or sustain human life or poses a low risk of damage to the user. They are often simpler in design and functionality when compared to higher-class devices.

Class 2(A) and 2(B) Medical Devices and Technologies:

Class 2(A) medical devices are falling under low risk to the moderate-risk profile of medical devices,

And 2(B) devices are considered to pose a moderate risk to higher risk of medical devices.

These devices are generally more complex in design and function in comparison to class I devices and involve special controls to confirm safety and performance.

Class 3 medical devices

Class III equipment is defined as that which is intended to support or sustain human life and is vital to preventing health harm or poses a danger of disease or injury. These devices frequently have a direct impact on patient health and have sophisticated designs.

In vitro diagnostic medical devices (IVDs):

In-vitro diagnostic tools are used to conduct tests on samples taken from outside the body of a person to learn more about their health or level of disease. These tools are important for illness detection, monitoring, and therapy and are designed for laboratory or point-of-care use. For example:

Active medical devices:

These are the medical devices that use electricity to operate or that produce and deliver energy to diagnose, treat, or monitor a patient's medical issues. Devices that produce or emit radiation, electrical current, or other types of energy may fall under this category. There are a few examples:

Implantable Medical Devices:

Medical devices that are implanted into the body by using surgical or minimally invasive methods are usually referred to as implantable devices. These are the equipment that could be temporary or permanent and aim to influence biological systems in a therapeutic or diagnostic manner. Some of the examples are:

Methods of Marketing of medical devices in India

We tried to include all recent marketing methods in this analysis. It demonstrates the essential components of a successful 21st-century marketing strategy, clarifies what matters (and why), and provides practical advice you can put into practice right away to get results. Companies utilise the following approaches collectively:

- Brand needs to be competent, credible, and trustworthy.
- Website must be showcasing branding and medical device and their technologies.
- Landing pages are created to assist in converting visitors to leads on your website.
- Blogs generate disruption build faith and provide thoughtful leadership in areas that matter to our subjects and ideas.
- Digital platform gives customers access to your brand wherever they spend their time.

- Email marketing gives you more opportunities to stay in the spotlight and add value to your audience.
- Online advertising attracts attention to showcase products.
- Offline advertising uses proven payment sources and PR.
- Events provide a chance to broaden your audience and provide more leads to your digital sales funnel.
- Distributors are effective partners for boosting sales.
- Budget planning enables you to maximise the return on your marketing expenditures.

FUTURE ASPECTS OF MEDICAL DEVICES IN INDIA

- ❖ Over the past ten years, India's healthcare and medical device industries have experienced substantial growth. From consumables to implantable medical devices, India produces a vast variety of medical equipment. Catheters, irrigation sets, extension lines, cannulas, feeding tubes, needles, and syringes, as well as cardiac stents, drug-eluting stents, intraocular lenses, and orthopaedic implants, make up the majority of the medical devices produced in India. Implant. The market for medical devices necessitates significant capital expenditures as well as continual training to keep up with emerging innovations.
- ❖ India imports between 70 and 80 per cent of medical devices yet is still unable to meet demand. Many medical device manufacturers, both local and international, are currently looking to India's notable lack of medical device penetration as a big growth opportunity.
- ❖ The government of India has developed several programmes and policies to support the medical device industry. As part of the Make in India initiative, the government identified it as a priority area in 2014.

New technologies and innovations in medicals devices

- ❖ Medical personnel now have more options for treating a wide range of illnesses and disorders thanks to modern technologies. With the aid of these technologies, we will be able to identify illnesses early, keep track of our health more closely, and take proactive steps to stay healthy and heal wounds more quickly.

What does medical technology mean?

- ❖ MedTech Instruments used in medical settings for the diagnosis of patients, therapy, and health improvement are included in the large field of medical technology. used to link medical technology and patient care. From bandages to MRI scanners, dental floss to CT scanners, and wheelchairs to catheters, MedTech has it all. Pharmaceutical and in vitro diagnostic (IVD) laboratories, as well as diagnostics at the pharmaceutical/biotech level, all produce medical devices.

Medical technology benefits:

❖ Shortly Healthcare professionals can profit greatly from the MedTech industry, and advancements have raised the standard of patient care. These tools deliver precise results that aid medical professionals in creating better treatment strategies. Early outcomes, such as test and scan findings, are error-free and assist patients in receiving better outcomes more quickly. Additionally, leveraging MedTech tools and processes helps speed up doctor and patient interactions. These days, interventions can be carried out using simple technology. Additionally, better and latest, and controlled therapeutic choices are provided through MedTech. Medical practitioners find it to be a less complex field because of its accuracy, fast features and straightforwardness. Here is a list of some of the most cutting-edge medical innovations that are anticipated to revolutionise the medical industry by 2022.

- ❖ **1 Portable health monitoring device:**
- ❖ **2. DNA sequencing and genomic studies**
- ❖ **3. Robotics in medicine**
- ❖ **4. Electronic health and patient records**
- ❖ **5. Telemedicine and remote patient control**
- ❖ **6. mRNA technology**

- ❖ **7. Technologies for mental health**
- ❖ **8. Precision Medicine**
- ❖ **9. Neuroscience**
- ❖ **10. Virtual Reality**
- ❖ **11 Artificial Intelligence**

Methodology

1. Objective

The objective of using this methodology for the study of **Future aspects and marketing of medical devices and Critical Analysis of Strengths and Weaknesses** was to get the correct data from the relevant sources which can provide the right kind of information on the entitled topic of this research. Also, to discuss and analyse the strength and weaknesses of medical devices in the present scenario.

2 Literature Review

- Conducted a comprehensive review of relevant literature on medical devices, future trends, and marketing strategies.
- Identified key concepts, theories, and frameworks related to medical device technology, marketing, and strengths and weaknesses analysis.
- Gathered information by searching academic journals, industry reports, conference proceedings, and other reliable sources.
- visited some websites with government-released data about the market size and future aspects of medical devices.

3. Study design

- Determined the appropriate study design for the study Quantitative, Qualitative and Mixed Approaches.
- Justified the chosen study design based on research goals and available resources.
- Described the data collection and analysis methods used.

4. Data collection

- Identified sources of primary and secondary data for research.
- Primary data collection methods include phone calls, e-mails interviews and observations
- Secondary data sources include databases, industry reports, government publications, and case studies.
- Provided a detailed explanation of how data is collected to ensure its reliability and validity.

6. Analysis of Future Aspects

- Analysed the medical device landscape and identify new technologies, trends, and advances. • Evaluated the potential impact of these future aspects on the development, performance, and marketability of medical devices.
- Considered factors such as artificial intelligence, robotics, the Internet of Things, personalized medicine, and regulatory changes.

7. marketing analysis

- Examined existing marketing strategies of medical device companies.
- Evaluated the effectiveness of various marketing channels, campaigns, and approaches to promote medical devices.
- Assessed the impact of branding, positioning, pricing, distribution and digital marketing on medical device adoption and sales.

8.ETHICAL CONSIDERATIONS:

Considering ethical aspects when conducting research is as important as choosing appropriate research approaches and methods. Since informed consent has been taken from the professionals before asking for the collection of data for the study of medical devices and its future aspects also all the secondary data is collected from open sources which do not claim any privacy about the data. Also, the data and study would be used for the academic purpose only.

Results

- ❖ After reviewing the literature from many open sources available on the internet and research papers a brief study has been done on the classification and its types which help to give separate and actual knowledge about the medical devices and their segmentation
- ❖ The study also allowed us to understand how Medical Devices marketing is different from the other FMCG markets and therapeutic pharmaceutical markets.
- ❖ Increase and decrease in the use of medical devices during different phases of covid.
- ❖ The Indian medical device market, which is made up of many different categories and components, has continuously had double-digit growth rates in recent years, averaging 15.8% from 2009 to 2016. The market is currently projected to be worth US\$11 billion, making it Asia's fourth largest. Due to the dominance of numerous multinational corporations in the industry and the rapid expansion of small and medium-sized businesses (SMEs), the market is anticipated to reach \$50 billion by 2025. As the sunrise segment of the healthcare sector under the 'Make In India' brand, the government has implemented certain aggressive initiatives to support the sector. To enhance domestic production, efforts are also being made to streamline regulatory procedures and reform the conventional reverse tariff structure.

❖ The industry, however, is still caught in the "low balance trap"[1]. While some towns in the nation draw a lot of medical tourists, others lack the most fundamental medical services. The demand for low-cost consumables is greater than the demand for expensive and high-tech goods. Demand restrictions in this industry not only restrict opportunities for future growth but also fail to draw manufacturers and investors. His 100% foreign direct investment in this industry is automatically accepted to entice foreign investors. The medical device industry in the nation is very dispersed geographically and in terms of scale. There are now five medical device clusters in India. *Haryana (Consumables and dental equipment)*

❖ *Surat, Gujrat (Stent making)*

❖ *Delhi (MedTech devices innovators)*

❖ *Karnataka (Insulin pens, MedTech IT, Cardio stents and implants, PCR instruments)*

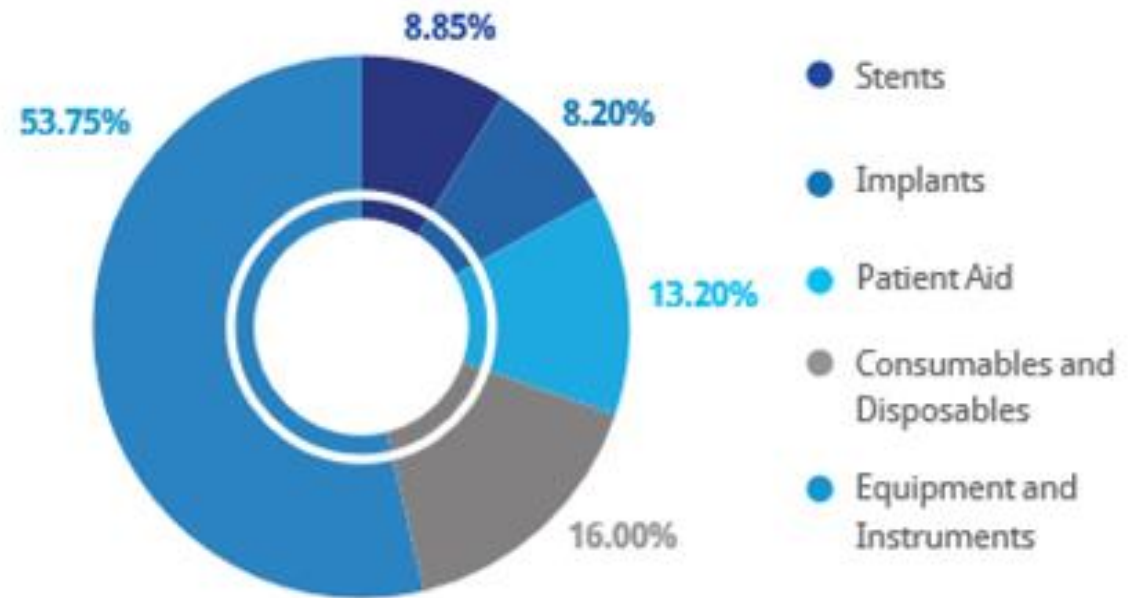
❖ *Tamil Nadu (Diagnostics, emergency support system, Ophthalmology)*

Additionally, four Medtech parks will be built around these clusters to facilitate infrastructure development and a suitable ecosystem for suppliers, manufacturers, developers, and medical device companies. The Indian industry is divided into five major segments.

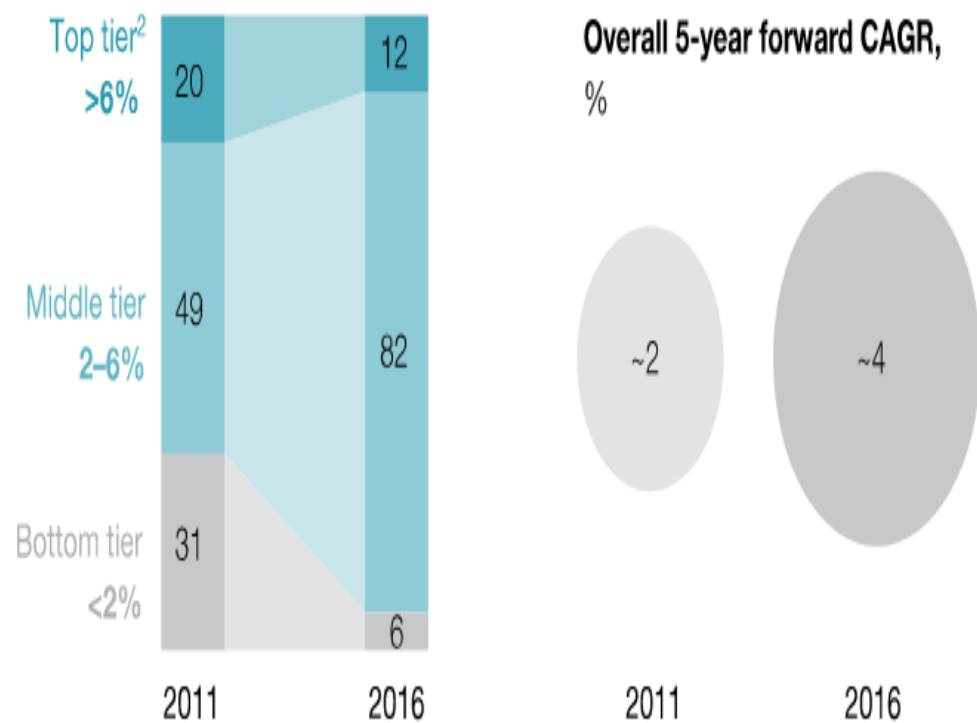
- *Consumables & Disposables*
- *Equipment and instruments*
- *Patient aid*
- *Implants*
- *Stents*

❖ The concept of the lower-level equilibrium trap was introduced by R.R. Nelson in the context of low per capita income. From a demand perspective, this means that lower demand levels are because of less expenditure, which limits market growth and leaves the industry 'stuck' in a low-equilibrium situation. increase.

Indian Medical Device Market



- ❖ The fastest-growing segment's share of industrial sales is declining, leaving few promising growth areas.
- ❖ Global Medical Devices Market Segment by Growth Tiers. Estimated market share based on 5-year compound annual growth rate (CAGR), % of total sales.

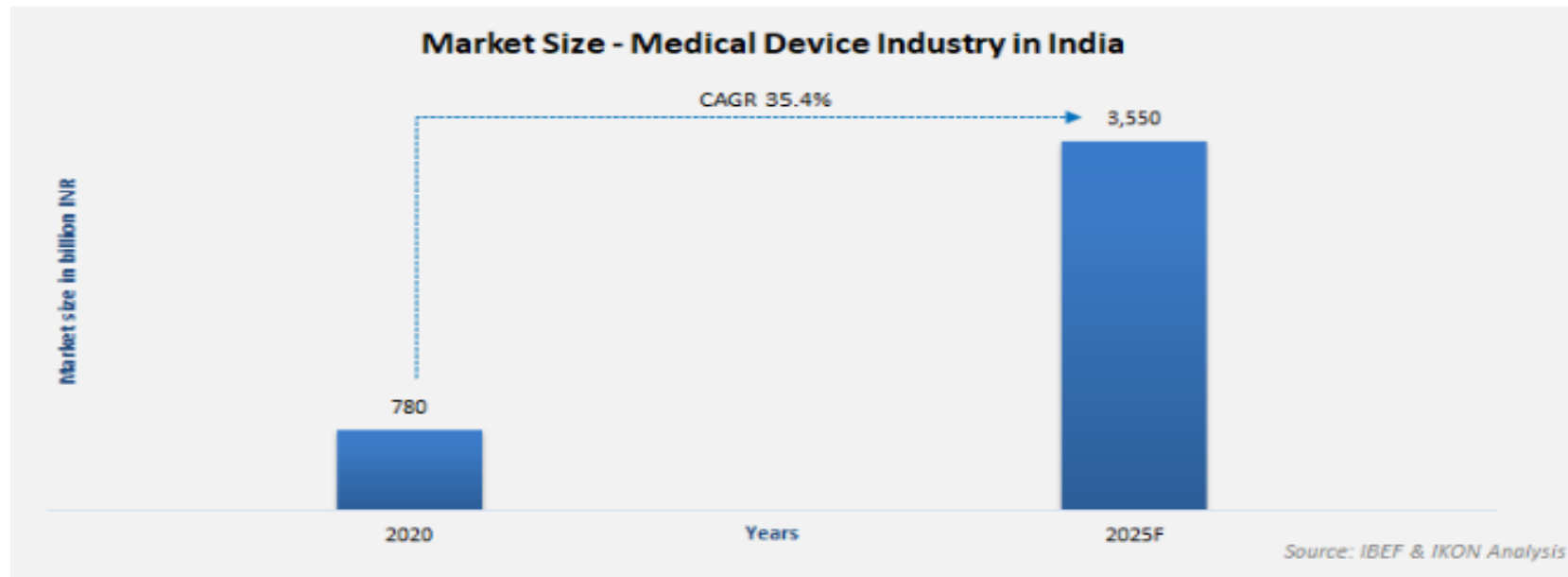


Based on the estimated Evaluated MedTech and HRI 2011-16 CAGR and 2016-21 Projected CAGRs subsegment analysis encompasses more than 90% of the 2016 global market.

Few high-growth, high-innovation segment remains, although some exist, particularly in cardiovascular.

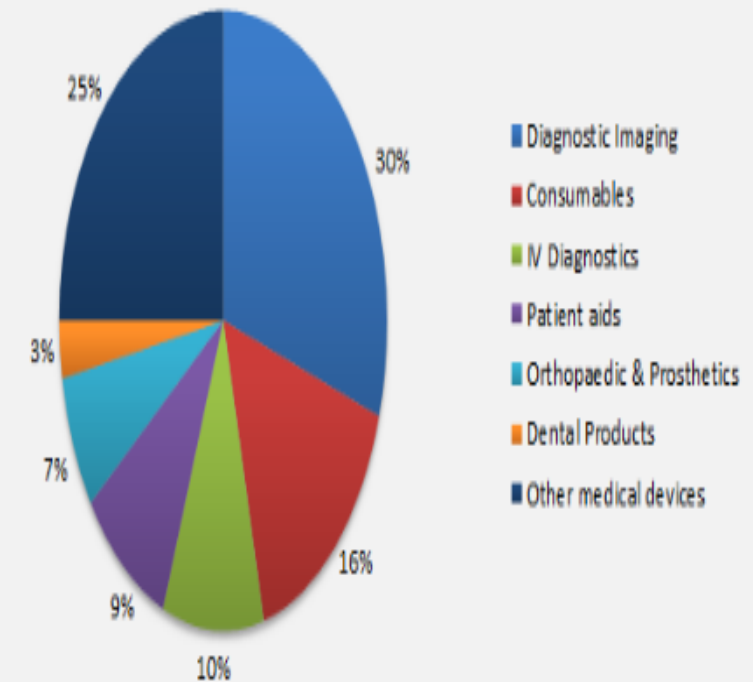
Indian medical device market size

- ❖ India ranks fourth in Asia and among the top 20 in the world in terms of the medical device market. The size of the entire medical device industry in India is estimated at INR 780 billion in 2020 and is expected to reach INR 3.55 trillion by 2025 with a CAGR of 35.4%.



❖ In 2020, diagnostic imaging equipment accounted for the largest market share, accounting for nearly 30%. Consumables and IV diagnostic equipment accounted for 16% and 10%, respectively. Medical devices such as patient aids, orthopedics and prosthetics, and dental products account for less than 10% of his total market.

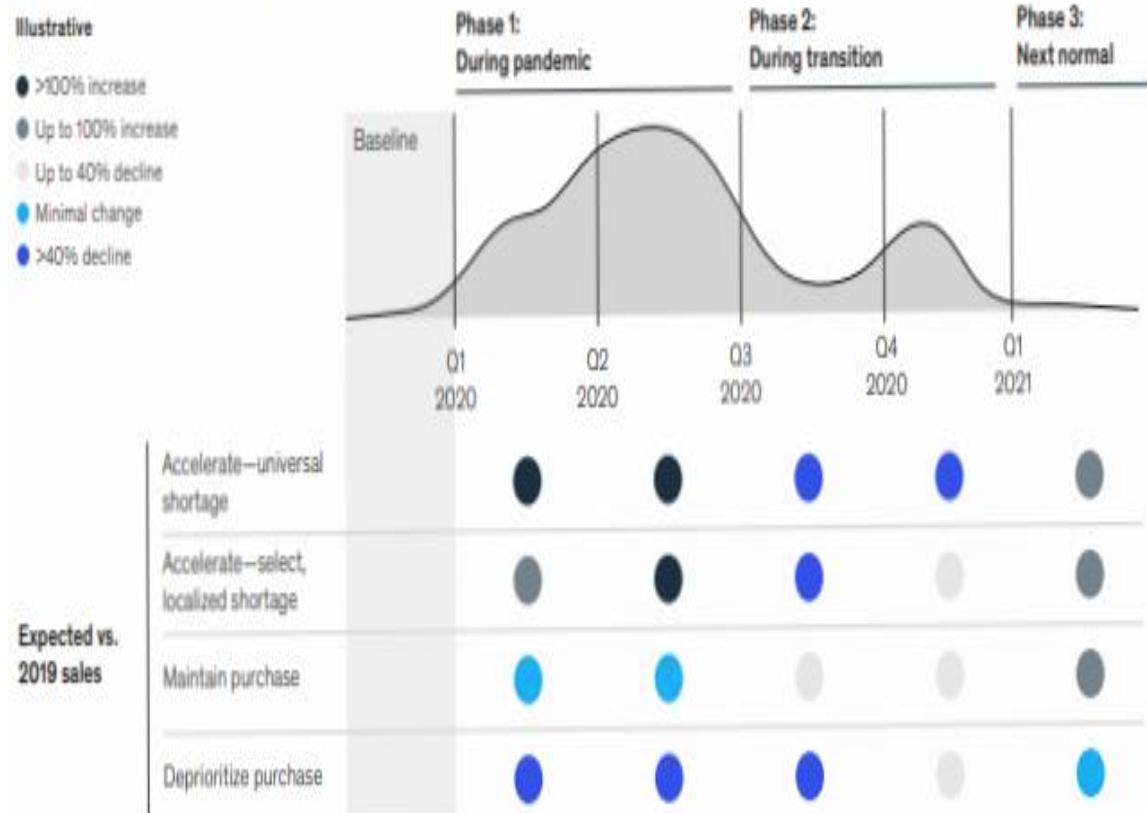
Market Share - Medical Device Segments in India



Source: IKON Analysis

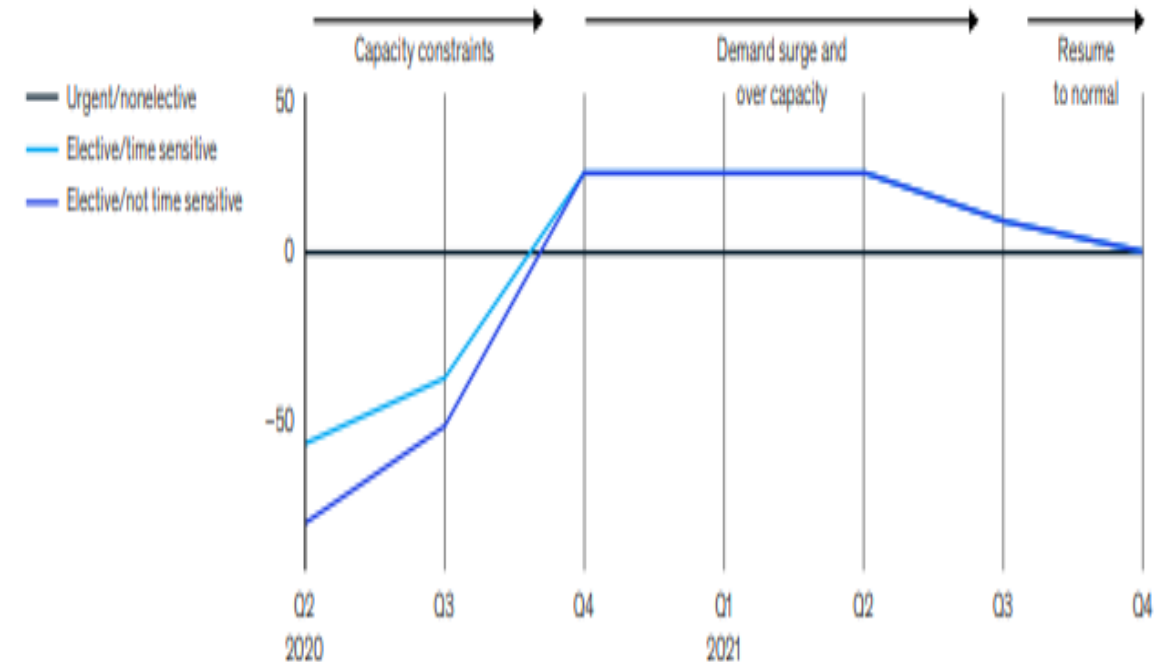
Phases of the pandemic cycle impact the demand for equipment.

Changes in US sales across the pandemic curve for medtech products¹



Scenarios suggest significant declines in US procedures and recovery starting in Q4 2020.

Change in expected quarterly procedure volume (pre-pandemic), %¹



US procedural breakdown by level of electiveness, %, weighted average of procedure within each speciality

■ Urgent/nonelective ■ Elective/time sensitive ■ Elective/not time sensitive

Limitations and advantages of medical devices

Advantages

- ❖ 1. Hospitals with electronic health records
- ❖ 2. Health hospital communication system:
- ❖ 4. Reduction of health-related errors.
- ❖ 5. Wearable technology:

Disadvantages

- ❖ Automatic mechanical processing:
- ❖ Shows incorrect results for patient status.
- ❖ Increasing patient care costs:
- ❖ Lack of patient information:
- ❖ Technology-enabled patient care online:
- ❖ Damage to the patient's cells and organs:
- ❖ Recovery of medical machinery and equipment takes time

Conclusion

- The study examined the upcoming marketing aspects and analysed the strengths and weaknesses of medical devices. Our results show that the future of marketing in the medical device industry has great potential for growth and innovation. Medical device marketing strategies will be significantly influenced by technological developments like artificial intelligence, the Internet of Things, and telemedicine.
- The ability of medical devices to enhance patient outcomes and quality of life is one of their major advantages. These tools support precise disease diagnosis, efficient treatment, and ongoing disease monitoring. They provide individualised and focused treatment, lower the risk of complications, and enhance patient comfort. Medical devices also have the potential to boost productivity, lower costs, and improve the quality of healthcare.
- But it's important to be aware of the negative aspects of medical technology. The possibility of unfavourable outcomes and complications from using the device is one of the main worries. Strict adherence to quality control, legal compliance, and safety standards are necessary for risk mitigation. Medical device availability may be hampered by their high cost of development, production, and acquisition, particularly in environments with limited resources.
- When marketing medical devices, ethical considerations are also crucial, including accurately and transparently communicating the capabilities, restrictions, and potential risks of the device. The advantages and risks of medical devices should be clearly explained to patients and healthcare professionals, according to manufacturers and distributors. This necessitates striking a balance between promotional efforts and ethical advertising techniques.
- In conclusion, technological advancements and a focus on patient outcomes will lead to a bright future for the marketing of medical devices. Medical devices have many advantages, such as better diagnosis and treatment, but it is important to consider any risks and moral dilemmas. To maximise the advantages of medical devices and reduce potential drawbacks, a thorough regulatory framework, ongoing oversight, and stakeholder cooperation are crucial.

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