

# UNDERSTANDING THE EMERGING DEMAND OF MEDICAL DEVICES DURING COVID-19 IN INDIAN HEALTHCARE SYSTEM AND THEIR STRATEGIC BUSINESS OPPORTUNITIES



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## ABSTRACT

All over the world, the demand for medical devices is increased due to the Covid-19 pandemic. For the treatment of diseases such as COVID-19, various medical devices and diagnostic kits play a vital role in the healthcare system. This pandemic situation created a significant demand for Infrared thermometers, portable pulse oximeters, ventilators, video laryngoscope, Nasal cannula and various other medical devices that created unprecedented and unpredictable demand for these devices (USFDA, Public Health Emergency, Emergency situation, 2020). As per WHO, 63 percent of global deaths occur due to diseases like chronic respiratory disease, diabetes, cancer, cardiovascular diseases (WHO, 2020). According to the Business research company, the global medical device market has an expected value of USD 456.9 billion in 2019, with a compound annual growth rate (CAGR) of 4.4 percent since 2015 (The Business Research Company, 2020). In India, the Medical device industry was estimated to be valued at USD 4.9 billion (AdvaMed, 2018). Currently, India is the 4th largest medical device market in Asia and comes under the top 20 global medical devices market (NDA, 2020). The Indian government has taken various initiatives to promote foreign direct investment inflow, Technology up-gradation, Special Economic Zones for manufacturing units, decreasing medical devices taxation and promoting start-up culture in India. So that, development of the Indian economy and healthcare system can take place and improve.

This article discusses the medical device requirement before and after COVID-19 pandemic; and what are the possible strategies for delivering the medical device at an affordable price in rural areas, so that treatment cost reduces as well as the quality of care also increase. It also helps to understand how innovative business strategies helps business to grow in this pandemic.



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## INTRODUCTION

The whole world faced a pandemic situation during 2020. The first COVID-19 case was detected in India in January 2020, and the infection rate increased day by day. Currently, India shows some positive results by a decline in the COVID-19 infection cases with faster recovery rates (IBEF, Knowledge Center, November 2020). The COVID-19 pandemic is responsible for health emergency all over the world, but it also created a strategic opportunity for healthcare industries; before the pandemic, people were not taking care of their own health or lifestyle, and now, people are more aware, and they acquire and adopt provisions which make them healthy and fit (IBEF, Knowledge Center, October 2020). In this scenario, various innovations done by different healthcare and medical device companies that provide affordable and effective medical devices and equipment or services have become very helpful for the consumers, such as telemedicine services, home delivery, teleworking, contact tracing, etc. These innovations identified the need of the customer for different activities. Some other industries like the insurance sector also show growth of 17.16 percent year over year to Rs. 51,637.84 crores in the fiscal year 2020 (IBEF, Indian Healthcare Industry Report, 2020). It is a good indication for the healthcare and medical device industries because it played a vital role in reducing medical expenses. According to the Department for Promotion of Industry and Internal Trade, around USD 6.72 billion Foreign Direct Investment occurred between April 2000 to March 2020 in hospitals and diagnostic centers that show the Indian healthcare and Medical device market (IBEF, Indian Healthcare Industry Report, 2020). By 2025, the Government will increase public health spending up to 2.5 percent of India's Gross Domestic Product (IBEF, Indian Healthcare Industry Report, 2020).

## OBJECTIVES

As we have seen in this pandemic situation, the COVID-19 infection spreads very fast in the population. As per WHO, there is no specific drug or vaccine available for the treatment (WHO, 2020). For prevention and the diagnosis of the COVID-19, different medical devices are used, and in critical cases, ventilator demand increased (USFDA, COVID-19, Medical device, 2020). To understand the emerging demand for medical devices in the Indian healthcare system and their strategic business opportunities for the business, some objectives have to be identified.

1. To understand the overview of the Indian medical device industry.
2. To explore and understand the factors responsible for the rising demand for medical devices before and after COVID-19.
3. To identify the opportunities for medical device industries in India.
4. With the help of a case study, understand the possible strategies to deliver medical device facilities at an affordable price.



## **LITERATURE REVIEW**

As per the World Health Organization, COVID-19 affects the infected person's upper respiratory tract and leads to various complications such as pneumonia. In this situation, patients may require medical support system through ventilators (WHO, Coronavirus, 2020).

The Food and Drug Administration issued guidelines and policies for medical devices such as ventilators, anaesthesia, and other respiratory devices. So, the continuous availability of safe and effective medical device supply should be maintained in the COVID-19 situation (Food and Drug Administration, Medical Device, 2020). According to Jeff Shuren, Director at Centre for Devices and Radiological Health, unprecedented urgent demand for medical devices and diagnostic kits for COVID-19, etc., has been created in terms of volume. (FDI, News, 2020)

Thomas Ritler and Carsten Lund Pedersen explain six types of crisis impact on the business model and a five-step approach for analyzing the conciseness and forecast of the impact of crises like COVID-19 on the organizational business model, and this will help in structured analysis and making strategic decisions (Thomas Ritler and Carsten Lund Pedersen, 2020), Chesbrough et al., (2020) explain how an open innovation mechanism will play a significant role in recovery from the COVID-19 financial crisis for business. They explained the open innovation mechanism and suggested that managerial implication and managing innovation will help recover from this pandemic situation and boost business growth. (Chesbrough H., Elsevier, 2020)

## **DATA COLLECTION & METHODOLOGY**

The data collection begins with an extensive review of published articles, news, reports of Deloitte, press release reports of Ministry of Health and Family Welfare, Government of India, Indian Brand Equity Foundation (IBEF), report and news of United States Food and Drug Administration, reports of WHO (World Health Organization), and IQVIA report. An exploratory and descriptive study has been performed.

## **DISCUSSION**

### **A) OVERVIEW OF INDIAN MEDICAL DEVICE INDUSTRY**

The Indian Medical device industry has the fourth rank in Asia after China, Japan, and South Korea and holds 20th rank all over the world. In India, the medical device has the lowest per capita spend at USD 3 among countries like Brazil, Russia, and China (Singh G., Pratt A., AdvaMed, 2017). In healthcare, the medical device plays a crucial role in the diagnosis, screening, monitoring, and more that helps in the treatment of the disease (WHO, Coronavirus, Medical devices, 2020). As we see in this pandemic situation, ventilators become a life savior for the patients (USFDA, Coronavirus and Medical Device, 2020). The consumables, implants, diagnostic imaging, instruments, electronic appliances, patient aids, and medical accessories are the segments that form India's core medical device industry (AdvaMed, 2018). The instruments and appliances represent the largest segment of India's medical devices industry, constituting 34% (USD 1.26 billion) of the total industry size in 2014(Singh G., Pratt A., AdvaMed, 2017). It is expected to grow at a rate of 15% over 2014-2020(Singh G., Pratt A., AdvaMed, 2017). In India, the medical device has the lowest per capita spend at USD 3 billion among countries like Brazil, Russia, and China (Singh G., Pratt A., AdvaMed, 2017). In 2014, the Indian Diagnostic imaging held the second largest segment in the world, having a 31 percent total industry size and growth with a rate of 13 % between 2014-2020, while



therapeutic appliances are expected to grow at a CAGR of 19% (Singh G., Pratt A., AdvaMed, 2017). The consumables and implants were estimated at USD 0.72 billion, i.e., 19 percent of the total medical device industry, and are predicted to grow at the rate of 14 percent between 2014-2020 (Singh G., Pratt A., AdvaMed, 2017). The patient aids segment is the fastest-growing segment at the rate of 19% between 2014-2020 and was estimated at USD 0.59 billion in 2014. (Singh G., Pratt A., AdvaMed, 2017)

## B) UNDERSTANDING THE FACTORS RESPONSIBLE FOR THE EMERGING DEMAND FOR MEDICAL DEVICES BEFORE AND AFTER COVID-19

### 1. EMERGING DEMAND FOR MEDICAL DEVICES DUE TO COVID-19

According to the WHO (2020), these are few medical devices or respective components that are essential for the treatment of critical COVID-19 patients. (WHO, 2020)

**Table 1: Priority Medical Devices in the context of COVID-19**

Serial Number	Type	Medical Purpose	Medical Device Generic Name		
1	Medical Equipment	Monitoring	Infrared thermometer		
			Pulse oximeter –Fingertip, portable handheld, with cables and sensor		
2		Oxygen Therapy	Medical gas cylinder, portable, for oxygen, fitted with a valve and a pressure and flow regulator		
3		Air Management and Intubation	Mechanical Ventilation	Laryngoscope, FO, diameter 28 mm, with blades or Video laryngoscope, with blades and accessories	
4				Patient-ventilator, intensive care, for adult and pediatric, with breathing circuits and patient interface	
5				IV- Infusion	Electronic drop counter, IV fluids
6				Blood Chemistry	Blood Gas Analyzer, portable, with cartridges and control solutions
7	Imaging	Ultrasound, portable, w/linear and phased array cardiac transducer, w/trolley, etc.			
8	Accessories and Consumables Associated with Medical Equipment	Oxygen therapy	Bubble humidifier, Connector, biconical, symmetric, etc.		
9	Consumables (Single Use Device)	Air Management and Intubation	Catheter, nasal, 40 cm, with lateral eyes, sterile, single use and Endotracheal tube introducer, Stylet, sterile, single use, etc.		

Source: World Health Organisation, Medical Device, 2020

### 2. INCREASED PER CAPITA EXPENDING OF MEDICAL DEVICES IN INDIA

During the next few decades, the Indian medical devices market is expected to rise at an enormous rate of nearly 15 %. The growth rate is supported by a few other healthcare benefits and policies; one is the Make in India initiative, which is further expanded by private healthcare



firms in India (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). Even though the growth rate of medical devices in India was nearly 10 percent during the past few decades, the per capita consumption of medical devices was significantly low as USD 3.0 (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). It is significantly lower when compared to developed nations like the USA and Germany, whose per capita consumption is USD 415 and USD 313, respectively (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). The per capita consumption of medical devices is even lower when compared to the global consumption rate of medical devices, which is USD 47 (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). One of the main challenges for lower per capita consumption of medical devices in India is the affordability of medical devices by a huge population section. India's medical device manufacturing industry focuses on a cost-effective model for lower-income and middle-class income segments in India. This segment has great potential to generate high demand and growth rate of medical devices in India.

### **3. HIGH MARKET ACCESSIBILITY BASED ON NOVELTY AND INNOVATION**

India nearly imports around 75 percent of medical devices from the world (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). This is due to the limited manufacturing base in India. Few of the domestic companies and healthcare MNC's have contributed significantly in developing cost-effective medical devices in India and are at par in terms of affordability, quality, and operations when compared with existing products that require a lot of technical and instrumental knowledge and know-how in terms of processing and manufacturing. The cost-effective model has a greater reach across different segments and holds a firm growth in India's medical devices over the past few decades. India nearly exports USD 1.17 Billion (2014) of consumables and implants across the world (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). The top destination for exports of medical devices in India in terms of value is in the USA (USD 171 million), Singapore (USD 81 million), and China (USD 72 million). (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016)

### **4. HIGH SERVICEABILITY AND SHORTENING OF LEAD TIME**

The Indian medical devices have much potential in generating high domestic demand, as a global hub for manufacturing facilities, and thus shifting of consumption pattern. A shorter lead time and an enhanced service level have increased the opportunity to penetrate and expand the medical devices segment in India. For most of the MNC's, the Indian healthcare market serves as a de-risking opportunity for its regional and global business and serves for the growing domestic market.

For most investors, India is the major market in terms of the high demand for medical devices and can become an export-oriented country. On the other hand, China serves as a low-cost manufacturing industry. The countries such as Puerto Rico, Ireland, and Singapore have high export sales compared to domestic sales (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). The Government of India has implemented several policies and measures to overcome the medical devices industry's challenges.

Some of these include:

1. Draft Drugs & Cosmetics Amendments Bill (2015).
2. 100 percent Foreign Direct Investment (FDI) in the medical devices industry under the automatic route.
3. 'Make in India' initiative for promoting domestic manufacturing.

4. Enhanced quality and better framework model in India to meet International Standards in terms of quality, safety, operations, and performance of the medical device industry in India.

## 5. FUNDS/INVESTMENTS AND CHANGING BUSINESS MODELS

Earlier, India authorized 100 percent FDI (Foreign Direct Investment) in India's medical devices under the automatic route. Nearly USD 90 million has been invested between December 2014 to August 2015 (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). Most of the MNC's in India are focusing on increasing the manufacturing bases and industries and various research centers to meet the demands of domestic and global markets. The increased funding and investments have also reflected in other supply-side changes in healthcare delivery in India, such as:

1. The number of hospitals and hospital beds has increased significantly in India. Earlier the total consumption of hospital beds in India was 0.8 million in 2002, which significantly increased to 1.6 million in 2012 (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). In the future, it is expected to increase to nearly 2.9 million by 2025 (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). The increase in the number of beds in hospitals was supported and driven by corporate chains of Hospitals in India, MNC's and other local service providers are entering tier 2 and tier 3 cities.
2. Various diagnostic centers and laboratories have increased significantly and are primarily focused on imaging and pathology. In the future, it is expected that there would be an increase in domestic laboratory chains. It is estimated that more than 1,00,000 diagnostic laboratories will prevail shortly, having a growth rate of 15 – 20 percent. (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016)
3. The healthcare industry in India is going through a lot of changes and modifications in terms of medical device manufacturing and incorporation of various formats such as multispecialty outpatient clinics, IVF centers, short stay surgery centers, mother care hospitals, and child care hospitals (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). The industry is heavily dependent on imports from local manufacturers producing products at the lower end of the technology value chain.

## C) IDENTIFYING THE OPPORTUNITIES FOR MEDICAL DEVICE INDUSTRIES IN INDIA

These are some initiatives and factors that promote the medical device industry in India:

1. **Under the 'Making in India' campaign:** States like Andhra Pradesh, Maharashtra, Gujarat have decided to build industrial parks dedicated to medical devices where facilitation of domestic manufacturing of medical devices will be provided at a low cost (AdvaMed, 2018).
2. **Setting new R&D labs and Infrastructure:** As we have seen in this pandemic situation, the Government has set up new clinical trial labs and labs to test COVID-19, promoting private sector companies by giving some grants and quick approvals for the new lab. So, that maximum number of testing occurs in tier 1, 2, 3 cities, and even village areas (AdvaMed, 2018). The government-funded various projects to develop the testing kits and also dedicated funds for innovation, R&D, and product development for electronic, medical devices, Information Technology, etc.
3. **Skilled India Initiatives:** Under Pradhan Mantri Kausal Vikas Yojana (PMKVY) scheme, the Ministry of Skill Development and Entrepreneurship (MSDE) helps in the development



of industry-relevant skills in students and the young population by giving training to them so that skilled workforce could be made available for the industries.

4. **Establishment of indigenous quality assurance system:** India's government established a separated medical device quality assurance system named ICMD scheme (Indian Certification of Medical Devices). In this system, identification of high-risk medical devices and low-risk medical devices would be made, and on that basis, certification would be granted. (AdvaMed, 2018).
5. **Medical Tourism:** According to the Ministry of Tourism, the Indian medical tourism industry is expected to reach USD 9 billion by 2020. India is the third most popular place for medical tourism. In 2015, the Indian medical tourism industry was worth USD 3 billion (India Healthcare, 2019). This is due to low-cost surgeries with high efficiency and high quality, involving various medical devices and accessories. The presence of 21 Joint Commission International-accredited/ approved hospitals in India encourage the foreign resident patients about the assurance and quality of healthcare services available in those centers. More hospitals are getting accredited. (India Healthcare, 2019)
6. **Digital Transformation:** In this pandemic situation, people prefer to get in-home advice for the treatment with the help of telemedicine; this mode of treatment and teleconsultation industry is also supporting the usage of medical devices in self-diagnostic kits, such as oximeters, blood pressure monitoring devices and glucometers, etc. (India Healthcare, 2019)

#### **D) CASE STUDIES: UNDERSTANDING THE POSSIBLE STRATEGIES FOR DELIVERING MEDICAL DEVICE FACILITIES AT AN AFFORDABLE PRICE**

##### **1. ABBOTT**

With the critical shortages of trained professionals in modern diagnosis and treatment protocols, India lacks the required healthcare infrastructure besides inadequate facilities and healthcare services. According to India's Registrar General (2003) report, coronary heart disease was responsible for 17 percent of India's total death between 2001-2003. Coronary heart disease is also responsible for 26 percent of adult death between 2001-2003, while between 2010 to 2013, coronary heart disease patients have increased by 23 percent and 32 percent, respectively (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). The treatment of coronary heart disease was rare and new with the help of medical devices in the year 2000(Abbott, Annual Report, 2020). Then Abbott identifies the opportunities and the challenges of the medical device market in the coronary heart disease segment. They started to form an ecosystem by holistic strategy. Abbott started to train the healthcare professionals regarding the handling and safe use of medical devices and diagnostics kits (Abbott, Annual Report, 2020).

Abbott collaborated with various medical colleges and gives training to the young and fresh medical graduates, paramedic staff, and nurses. Abbott also understands the importance of awareness, so they also started to spread awareness among patients and the public through different methods. The methods include word of mouth through doctors, paramedics, and other healthcare staff. All the programs become very successful. Abbott trained more than 2000 cardiologists all over the globe and reached up to 1000 healthcare centers (Abbott, Annual Report, 2020). This initiative helps in the medical device industry's growth because people are more aware of procedures, technology, safe use of medical devices and promote research and development among stakeholders (Abbott, Annual Report, 2020). Abbott also provides the facility to the cardiologist to learn new interventions for the treatment of disease, and for that, they connected the doctors to the world's best cardiologists (Abbott, Annual



Report, 2020). The medical devices are used in both the situation, first are the diagnosis, and second is for treatment.

**Adaptability:** With the strong relationship between doctors and Abbott, the new technology's transfer becomes easier. Due to this, the usage of new medical device technology was increased for complex surgeries and cases.

**Market growth:** Abbott takes various initiatives to create awareness about the disease, medical devices, technology, and interventions. Abbott has successfully reached to the population, and they also able to expand the market share in cardiology segment containing medical device and drugs product both.

**Strong Brand Image:** Abbott having a good amount of experience in this segment, and they have in-depth knowledge of the pro and cons of medical devices. So, they conducted extensive clinical trials of the medical devices and disease treatment. As a result, they easily get approvals from medical device regulators in the United States of America, that is, USFDA (Abbott, Annual Report, 2020). This will help make a strong brand image in the doctor's mind and place their product into the market.

These are a few examples of the awareness campaign:

1. Thyroid Awareness Program: Company spotted a few areas with a high prevalence of thyroid disease and limited and low availability of the medical device for the diagnosis. In such places, they set up camps for clinical diagnosis through doctors and free consultations. (Abbott, Annual Report, 2020)
2. Abbott also did various collaboration programs with associations like Indian Orthopaedic Association. (Abbott, Annual Report, 2020)
3. Abbott also contacted medical service providers and retailers. In special programs, Abbott representatives of Maharashtra, Madhya Pradesh, Bihar, and Uttar Pradesh have participated, expanding their reachability in the country, especially in villages. (Abbott, Annual Report, 2020)

**Conclusion:** In this case study, Abbott creates an ecosystem by connecting with all the stakeholders with the company and sharing their knowledge with them. It creates a brand image among their target customers. Creating awareness of medical devices, diseases, medical interventions, etc., helps establish the market with sustainable growth.

## 2. NARAYANA HEALTH

In 2001, Dr. Devi Shetty founded Narayana Health in Bangalore. Narayana Health has 30 specialties who worked on 5,600 operational beds (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). This is also known as Henry Ford of heart surgeries. This title is used because Narayana health has managed its operation to achieve economies of scale and reduce healthcare costs. Due to economies of scale, the cost of bypass surgery is only INR 90,000, which is lower than countries like the United States of America, Mexico, and Colombia. By increasing the volume of surgeries in the Narayan Hospitals, the cost of the surgeries' expenditure becomes lower (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). In Narayan Health, the average doctor performed 400 to 600 surgeries in a year, while comparing to the doctors who worked in the United States of America is very low, that is, 100 to 200. Narayan Health's strategy is to provide affordable treatment, and for that medical team of Narayana Hospitals performed a maximum number of surgeries and catheterization (medical device accessories) procedures on a daily basis. As with any industry, doctors perform





surgeries systematically like people working on the assembly line. Medical professionals also worked in the shifts so that maximum amount of facilities or expensive cardiac medical device/equipment utilization can be possible (Narayana health, 2020). Narayana health calculates its profits and losses on their daily basis and shares them with the doctors. By this method, the cost-cutting measurement becomes more manageable, and the burden of the cost of healthcare on the patient can be reduced. Narayana Health has an excellent record on the coronary artery bypass procedure; that is one percent, which is equal to the United States of America hospitals. They have zero incidences of bedsores after surgeries. They also focus on their medical staff's skilling, and for that, proper training is provided to them from the various specialist and super specialists. Narayana Health is one of the best examples in India that provide affordable healthcare service with consistent quality. Their innovative model of providing healthcare services revolutionizing the healthcare system of India. (Narayana Health, 2020)

### **3. GENERAL ELECTRIC HEALTHCARE**

General Electric's Healthcare is one of the most famous medical device companies that include ultrasound and Computed Tomography scanners, cardiology centric medical devices, high voltage tanks, ventilators, and many more. Their strategy is focusing on organic growth in the Indian medical device market. It is done by providing the customized healthcare facilities, creating awareness and availability of healthcare in every area. General electric healthcare always followed international compliance and standards. They focus on research and development so that the technology they deliver should be innovative, effective, and affordable for the customer. In India, 650 employees are working in software development, components of medical devices, etc. For the company, General Electric Healthcare, located in Bangalore, tries to make healthcare affordable by providing sustainable healthcare solutions (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). It is a strategy to acquire or expand in the Indian market by promoting the domestic R&D on Healthcare technology. The manufacturing of medical devices by developing and procuring resources locally and also reach the village and small cities.

General Electric Healthcare is always focusing on the development of those products into their portfolio that is economically affordable. In this way, General Electric launched 28 products that are effective and economical for the Indian population. In making their product affordable, General Electric Healthcare collaborated with the two domestic manufacturers, utilizing their skills and knowledge and distributing them into the market (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016). General Electric Healthcare also organized various educational programs under the skill India initiative in 5 years. Around 1,00,000 healthcare professionals have been trained under this program all over the world. (Bose A., Sehgal C., and Jha G.M., Deloitte report, 2016)

### **RECOMMENDATIONS**

For the promotion of the medical device industry in India, these few recommendations may be followed:

1. To establish technological advancement, infrastructure and provide better safety standards for the medical devices industry so that maximum investment happens.
2. A separate authority ensures the quality and authenticity of medical devices and promotes the export of medical devices.
3. This authority should also be responsible for giving grants and hasten the patent procedure so that the new technology is easily introduced in the country.



4. Promotion of health insurance program in India by collaborating with government and private sector organization under PPP model, so that cost of treatment could be reduced.
5. Awareness programs for new medical technologies and devices for lifestyle activities.

## CONCLUSION

As we have discussed, the medical device requirements after the COVID-19 pandemic has increased for the treatment of the patients. The various organizations have used possible strategies for delivering the medical devices at an affordable price in rural areas so that treatment cost reduces as well as the quality of care also increases. With reference of Abbott and General Electric healthcare company case studies, we understand that using innovative business strategies help the business to grow in this pandemic and also become more accessible in rural areas. The Indian government is taking various initiatives to promote foreign direct investment inflow, technology up-gradation, special economic zones for manufacturing units, decreasing medical devices taxation, and promoting start-up culture in India. So, the development of the Indian economy and healthcare system can be augmented and expedited. The medical device market has vast opportunities for startups, as we have seen in Narayan healthcare; innovative model and business strategy helps deliver affordable treatment with high efficiency and quality.

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