Confederation of Indian Industry

technopak

5th MEDICAL TECHNOLOGY CONFERENCE

"Emerging Medical Technologies - Enabling and Transforming Healthcare Delivery"

24 AUGUST 2012, NEW DELHI

- Theme Paper -

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Foreword

With the country poised for high growth in the next decade, and an increasing focus on healthcare by the government as well as the private sector the medical technology market is expected to witness an impressive growth at a CAGR of 15%. However, this optimism is somewhat clouded by the fact that the resource requirement for procurement, maintenance and upgrade of most of the technology available today is prohibitive for many healthcare providers and hence does very little to provide quality healthcare access to the teeming millions.

Initiatives to address this problem have been primarily led by medical technology manufacturers either in isolation or, at best, in a cursory association with hospitals. Barring a handful of examples, our healthcare industry has not seen a concerted effort by medical technology providers, hospitals, academic institutions, innovators and scientists. However, we firmly believe that medical technology can have a radical impact on healthcare access and clinical outcomes only when there is a synergistic association between healthcare delivery and technology players. It is therefore imperative to devise indigenous models of synergy.

Another factor that, in our opinion, will go a long way in making medical technology a catalyst for change is the promotion of domestic manufacturing of high-end, high-value products. At present, imports constitute approximately 75% of the market. Regulatory reforms, a budgetary push to research and development initiatives, and wider training avenues for scientists are required to achieve a healthy import-export ratio. Tax benefits, setting-up of medical SEZs and government subsidies on purchase of indigenous products need to be considered as other potential solutions.

One silver lining is the recent interest shown by many international Original Equipment Manufacturers, or OEMs in designing and customizing products specifically for emerging markets like India. For this purpose, they have started establishing and/or acquiring innovation centers in our country. This helps in curtailing the manufacturing cost of equipment by as much as 70% and this cost benefit can be passed on to end-users and consumers. Also, while frugal innovation is important for improving accessibility, it also needs to focus on the improvement of clinical outcomes and the reduction of the infection rate. Therefore, the direction of such initiatives requires deliberation.

Going beyond discussions of existing issues and possible solutions to the same, it is now imperative to look at implementation of such solutions as may be agreeable and practicable, from the perspective of all the concerned stakeholders. Through this White Paper, we elaborate on the extant scenario of the medical technology industry, as a means of seeking potential answers to the questions raised thus far. One such answer that we anticipate can have a positive impact, but hasn't received enough emphasis is synergistic collaborations between hospitals, clinicians and medical technology providers.

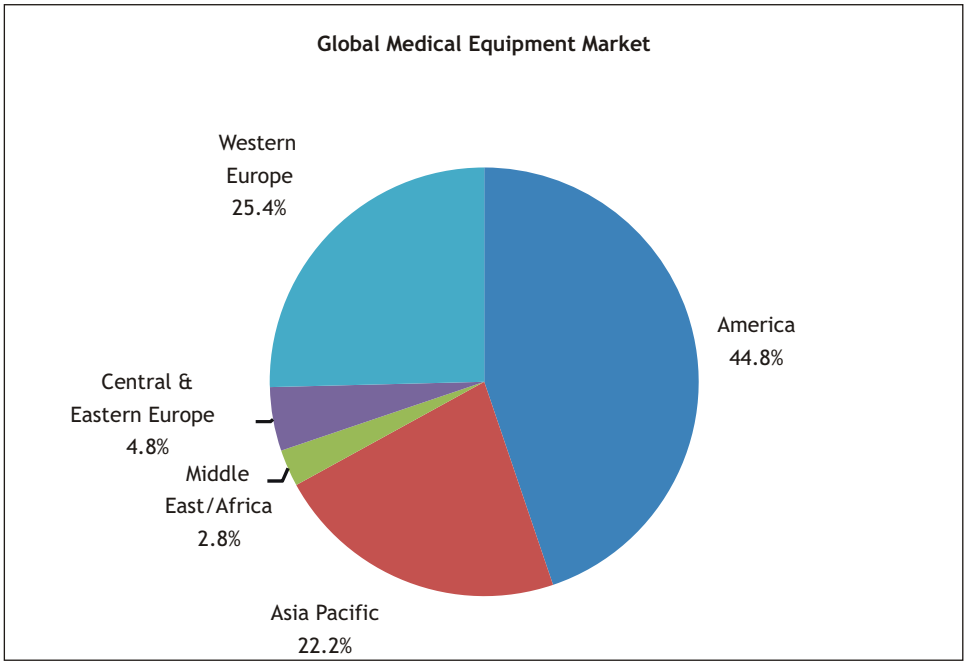
I. INTRODUCTION

Prior to discussing the possible stakeholder collaborations, it is useful to understand the *status quo* of the medical technology market, both in terms of its geographic dispersal and its segmented disposition.

The Global Market

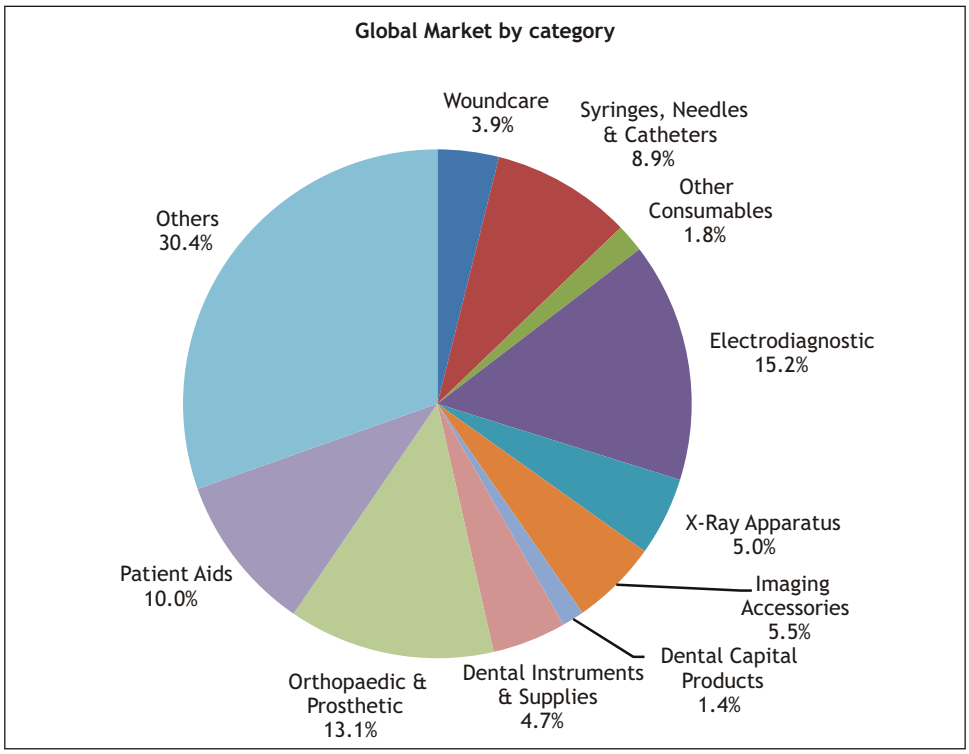
The global medical technology market was estimated to be worth USD 273.3 billion in 2011, with an observed growth rate of 5.3% (Source: Espicom report 2011). America and Europe together represent approximately 75% of this market with the Middle East and Africa representing a meager 2.8%.

Like any other industry, the global medical equipment industry is also dependent on the economic conditions prevailing in the international market and experienced a setback during the worldwide economic slowdown in 2008 due to reduced spending, exchange rate movements or a combination of both. Following the recession however, the Asia Pacific region emerged as a new growth hub for this industry.



(Source: Espicom report 2011)

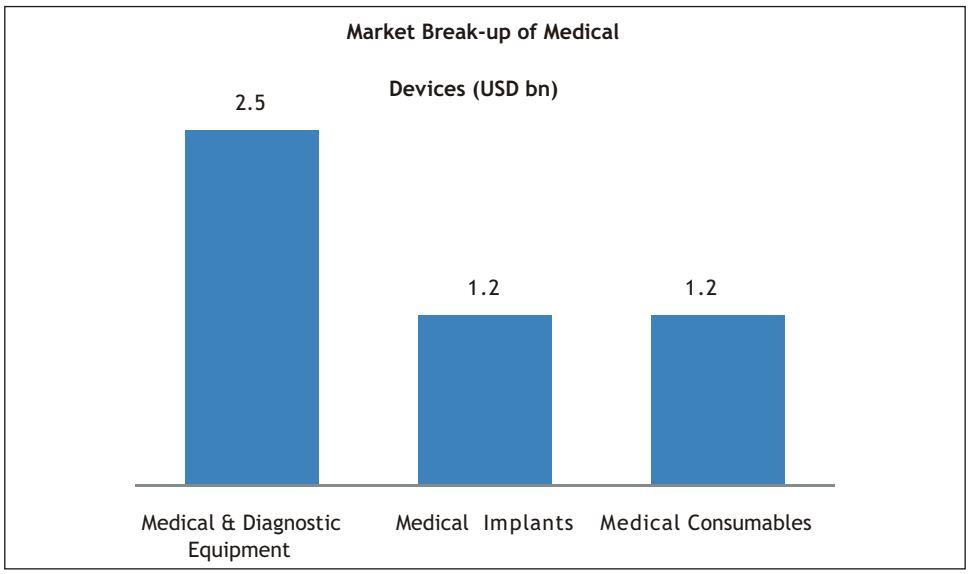
In terms of industry segments, Orthopedic, Dental and Prosthetic technologies emerge as the largest category, representing one-fifth of the global market, followed by Electrodiagnostics, Imaging and Patient Aids.



(Source: Espicom report 2011)

Indian Market Overview

The Indian medical devices market is worth approximately USD 4.8 billion, growing at 15% (Source: Deloitte report) and expected to double in the next 5 years. The Indian market is the fourth largest in Asia after Japan, China and South Korea. Most of the country's medical technology needs are fulfilled by imports which represent more than two-thirds of the market; the remainder of the demand is met by domestic industry which mainly caters to low-end technology requirements. There seem to be major local impediments to an innovation and technology led domestic industry that need to be addressed in the interests of all stakeholders having an objective of meeting the large healthcare needs in an inclusive manner.



Source: Technopak Analysis

This trade deficit (import-export skew) results in multiple sources of inefficiency in healthcare delivery in India. Of particular significance is the fact that the high cost of importing technology is borne by those seeking healthcare. It also affects the expansion plans of hospitals due to the looming uncertainty over the actual cost of imported equipment. This is a consequence of the instability of currency markets, which cause one currency to appreciate or depreciate sharply against another. For example, in recent times, India has witnessed sharp fluctuations in its currency since 2008, with fluctuation of over 20% and thereby making sustainability difficult for companies importing medical technology. A part of this fluctuation is absorbed by the firm and the rest is passed on to the customers. Some of the hedging techniques manufacturers adopt to counter such fluctuations are as follows.

1. **Long term contracts:** Hospitals promise minimum volume levels and brand loyalty to medical technology firms. In return, equipment firms promise to provide the equipment at a certain price irrespective of currency rates.

2. **Managing Inventory:** When a manufacturing firm foresees good demand but fluctuating currency, it increases equipment inventory and spare parts in such a manner as to take care of demand for some estimated time during which the currency fluctuation is expected.

3. **Outsourcing:** Local firms are not affected by currency fluctuations, so outsourcing work to these firms frees the MNC from currency fluctuations. The challenge with outsourcing is to maintain the same level of quality and service as it could negatively affect the branding and reputation of the company.

Domestic Manufacturing

Given the hitherto discussed issues with technology imports, it is beneficial for India to build up its domestic manufacturing capacity, especially in high value medical technology. In the past decade, India has observed consistent double digit growth in the healthcare sector with the entry of many corporate entities and aggressive expansion by existing hospitals, resulting in a huge demand for medical technology. This has made India an attractive investment destination for MNCs and also resulted in the development of many domestic manufacturers.

MNCs predominantly cater to the demand for high-end technology while domestic manufacturers focus on low-end technology needs. The latter are slowly shifting their focus to high-end technology but hold only a miniscule market share of 2-3%.

Medical technology requires the greatest investment, next only to land and construction in setting up a hospital. There is always huge pressure to minimize this investment. Domestic manufacturers hold an ace over MNCs in product costing, e.g. operating tables manufactured indigenously cost one-third as much as imported tables. Many other examples of indigenous manufacturing exist; however most of them are not market-successful or scalable because they need a minimum sale volume to become financially viable. This is primarily due to the mindset of Indian healthcare providers that indigenous products are not at par with international quality standards. A change in this perception will have a great positive impact on the growth of domestic technology players.

Challenges

In spite of having this cost advantage, domestic manufacturers are not favorites among the Indian hospitals, for the following reasons:

1. **Competition from MNCs:** International firms see great potential in the Indian healthcare delivery market. Over time, they have improved on product customization in line with customer needs through partnerships/long term contracts.

   Philips, Siemens and GE are setting up manufacturing plants in India, thus taking care of low cost competition from domestic manufacturers.

2. **R&D Investment:** Indian manufacturers did not have the first mover advantage. As such, they have lagged in matching the technical specifications in some areas and are not offering reliable service backup in other areas. Indigenous manufacturers have not had the scale to make R&D a thrust area and extend their product line. However, there is a shift in this aspect. There are now examples emerging of domestic industry successfully innovating and thereby increasing their offerings in relatively higher technology areas in a cost effective manner. However, this effort needs to be catalysed into a movement by addressing issues that are currently impediments to this strategy.

3. **Customer Relationship Management:** MNCs have built a good network among Indian hospitals where they take constant inputs from doctors and technicians and modify the product or service offering according to their needs and thus can easily charge a premium. They are able to offer services that maintain a fair level of continuity with the customers (e.g. In-service training sessions for nursing and allied health staff). Indian manufacturers have lost out on this vital aspect. However, it is also noticed that in certain sub-verticals, domestic industry even today have a larger market share than MNC's.

4. **Shortage of Trained Manpower:** Because of the attractive salary and global exposure, MNCs are able to attract skilled manpower as compared to domestic firms. Many people shift jobs to MNCs from domestic manufacturers after gaining experience, making things further difficult for domestic firms.

   Also, to keep costs low, domestic firms do not recruit sufficient number of people making employees share multiple responsibilities. This sometimes inhibits them from taking maximum advantage of their employees' caliber.

5. **Post Sales Service:** Unlike MNCs, domestic firms fall short in terms of having a robust service network. As many raw materials are imported by these firms their service is also dependent on their relationship with the supply firms. For example, domestic firms which manufacture ultrasound machines import the motherboard used in the machines. On the other hand, MNCs have a large installed base and a technology-enabled supply chain and can afford to maintain inventory of most of the spare parts needed to give a quick turnaround to clients. Reliability and responsiveness to technical issues, or 'downtimes', has become a key differentiator for most companies. Companies are no longer competing on features and pricing; it is the customer service mechanism and overall experience that are now considered tipping points.

6. **Adverse Regulatory Policies:** Lack of regulatory support makes manufacturing non-lucrative for local players. E.g. Implantable medical devices have to be routed through Central and State governments for approval, a process which often takes 18-24 months. This delay, due to the absence of a single window clearance, hinders new product development. Moreover, the import tax structure applicable to fully assembled equipment is the same (12.6%) as that for components, making local manufacturing non-lucrative in terms of business. Support for design and development facilities in terms of EMC/MC testing sites is also missing. Therefore, there is an urgent need for the government to take tangible

actions and play a catalytic role in promoting domestic manufacturing. Also while tendering for government hospitals there is hardly any preference shown for domestic manufactures

Opportunities

1. **Low cost healthcare delivery:** Despite being a basic need, healthcare is not accessible to a big chunk of the Indian population. In the past decade, the country has seen the growth of many low cost healthcare delivery models - Vaatsalya, Glocal, Arvind Eye Care and Shankar Netralaya are few examples. Building &construction and medical technology are the two major investment expenses for any healthcare delivery model. This is a great potential for domestic medical technology manufacturers as they can bring down the investment cost by a huge margin (20-25%).

2. **Understanding of the local market:** Local manufacturers know the Indian hospitals better than the MNCs and can better design equipment as per the needs of the Indian end-user.

3. **Government projects:** The government will prefer domestic manufacturers if they can provide comprehensive medical technology solutions that meet technical requirements for various equipment.

4. **Exports to neighboring countries:** India has a peaceful relationship with most of its neighbors (Sri Lanka, Nepal, Bhutan and Bangladesh) and is playing an important role in the development of healthcare services in some of these countries. India has also shown active interest in setting up hospitals (150-bed hospital at Dickoya, USD 7.5 million grant for setting up a cancer hospital in Colombo), upgrade of hospitals, supplying medical equipment (Hambantota and Point Pedro), organizing health programs etc. Domestic firms can play a critical role during the development stage of healthcare programs for these countries and can secure their future there. There is also an opportunity for Indian companies to engage with the existing MNCs and become OEMs to them.

Regulatory Scenario

The above challenges can be addressed and opportunities tapped to a great extent by bringing in regulatory reforms in the medical technology sector. The Indian government has taken some steps in this direction, with attempts to promote domestic manufacturing of medical technology by setting-up medical SEZs and reducing the import duty on raw materials used for technology manufacturing. Import duty on life-saving equipment was also reduced to 5% from 7.5% in the 2012 budget; similar rebates were given to life-saving drugs, formulations, artificial limbs etc. However, much more remains to be done. The government's focus on this sector needs as much emphasis as was given to the pharmaceuticals industry two decades ago, which brought about that sector's immense growth and evolution.

So far, medical technology regulation has been a part of the Drugs and Cosmetics Act, and regulatory requirements for the sector are fashioned around those that exist for pharmaceutical products. However, due to inherent differences in the two industries, the regulatory mandates are not suited to the requirements of the medical technology sector. There is also an urgent need for qualified staffing with expertise in the relevant engineering and clinical disciplines and training in the area of medical device regulation. This is one of the key actions necessary to create a robust regulatory infrastructure that will contribute to genuine improvement of the domestic industry while weeding out players who lack commitment and competence.

It is about time the government sets up an autonomous regulatory authority for the medical technology sector, under the administrative control of the Department of Science and Technology. This body should review the existing regulations and make necessary provisions for improvement through the notified body route as is seen in European countries. The duty structure needs to be further reformed to make raw materials more affordable and encourage the promotion of domestic manufacturing of high-end, high-value products. Also, incentives for domestic manufacturers in terms of fiscal measures, capital grants and preferential status can go a long way in making this sector financially stronger. Another crucial contribution of this body can be the setting-up of quality parameters for the industry which will encourage healthy competition among brands and foster a positive environment.

It will also be appropriate to constitute a Trade Promotion body to provide opportunities for Indian medical device companies to showcase their quality in the international market. This body can also assist in marketing BIS-certified equipment as a mark of international quality standards.

Innovations in Medical Technology

Apart from focusing on regulatory reform to boost domestic manufacturing, it is also crucial to invest in research and development initiatives. This can propel innovation, which can ensure that domestic manufacturing takes into account etiological, economic and social factors relevant to the Indian consumer. In terms of medical technology, innovation can mean anything which makes the healthcare system easily available and more affordable - in short, easily accessible.

Accessibility	Delivery	Epidemiology
Affordability Public health initiatives	Bed Availability Treatment Modalities	Investigations Disease profile
Growing income standards and aspiration levels Better affordability (financial & institutional) From cities to suburbs & villages (expanding markets)	Entry of private players leading to expansion in healthcare setup & corresponding rise in demand for medical consumables & high end quipment From implants to stem cell therapies	Rising prevalence of non communicable hereditary and life style disorders giving rise to disease specific medical consumable From BCG vaccination to insulin syringes
Medical insurance growing at 35%	Medical tourism 2b$ industry by 2015	India-Diabetic capital of world

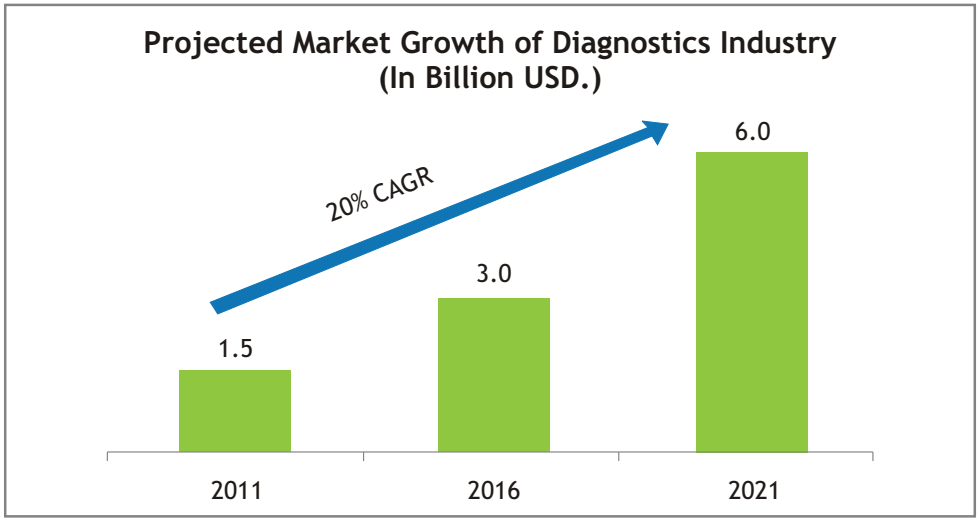
Source: Technopak Analysis

The evolution of medical science involved innovations and advances in medical technology. **It is this innovation which has made healthcare ever more accessible.** Further, the phenomenon holds great importance in the contemporary world which is marred by digital and physical and resource-based divides. Innovation can ensure healthcare delivery across the widest of spectra and the remotest of geographies.

Miniaturization and portability and conjunction with information technology have enabled physical accessibility, while reduction in per unit cost by economies of scale or use of latest techniques has meant financial accessibility.

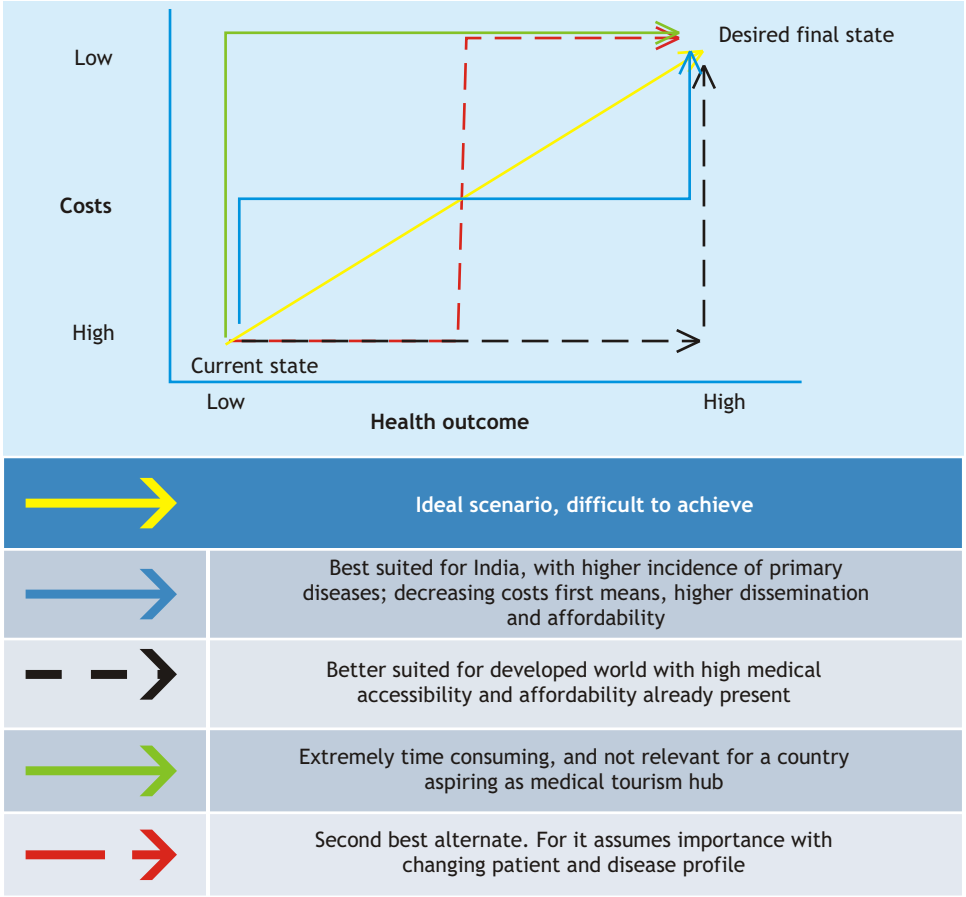
While this innovation has historically been largely restricted to western European and the US, with time the landscape of technology innovators is changing rapidly and the emerging markets of the BRICS countries have gained traction. E.g. Philips is involved in the development of cost-effective cath labs targeted at the Indian

market. Vast geographies, large market sizes, increasing accessibility and affordability of healthcare, IT revolution changes, growing economy, technically skilled population and the ready availability of a trial population are some of the reasons driving this change.



Source: Technopak Analysis

The locally available market and technology encourages the drive for devices which are more sensitive, tests which are more specific and instruments which are miniaturized and made from advanced materials.



Source: Technopak Analysis

A favorable environment for innovation requires an active collaboration among all the stakeholders including manufacturers, researchers, clinicians, healthcare providers, end-users and policy regulators. While the motive behind this innovation can differ for different stakeholders, there is no denying that the end-consumer or the user is at gains mostly, especially in a favorable policy climate. For a medical practitioner or healthcare worker, innovation is useful in easing patient management through rapid and better diagnostic services, better drug administration, better compliance and better outcomes.

For a consumer, it provides improved and customizable healthcare facilities. Moreover, it assures demand volumes at less cost for a manufacturer.

On a costs v/s health outcomes scale, multiple paradigms are possible, each suited for a country with a particular socioeconomic condition.

While there are many ups for medical technology innovation scenarios in India, the flip side presents an equally dismal picture. The sector has been marked by minimal R&D investments when compared to industrialized nations, wide gaps still exist in basic infrastructure, skill shortages are still being felt and, importantly, the policy environment is not exactly conducive to free growth. While the number of research publications has gone up, the number of them actually useful for lab developments is few. Most of the research still focuses on low-end medical consumables and devices. Inadequate data about actual patient and disease profiles, low awareness and ignorance about safe medical practices, and still lower financial inclusion of population in terms of healthcare implies that the demand is not as much of actual potential, and is skewed in favor of large towns and cities.

II. Synergy in Delivering Healthcare

Leveraging technology in delivering better health outcomes

The multifaceted but interlinked challenges of accessibility and affordability in the healthcare sector today demand a radical transformation in the way we deliver healthcare services. **While it is a well-acknowledged fact that medical technology can be a strong catalyst in bringing this transformation, it is also equally accepted that not enough has been done to leverage this catalyst.**

Short-term and long-term medical technology planning is often one of the most neglected aspects of setting-up and expansion of hospitals in India. As a result, our healthcare delivery providers belong to two contrasting extremes in their use of medical technology, both situations being suboptimal. At one end are the corporate hospitals which have been in a scramble to acquire the latest and often most expensive technology available in the market, and competing to make it financially feasible and suitable in the Indian business setting. The other side of the picture is marked by many small nursing homes and clinics using outdated, at times substandard, medical equipment and consumables.

Medical technology manufacturers have tried to deal with this situation, but usually in an isolation fashion, with the best case being a cursory association with hospitals and researchers. Barring a few examples such as the development of Orthopedic Limb Salvage Oncology Solution by Sushrut Adler, Blood Analyzers by Transasia Bio-Medicals and a low cost ventilator called 'Vayu' by GE, there are hardly any examples of technology providers working in tandem with hospitals, clinicians and academic institutions in developing new products. The few partnerships that exist fall in either of the following broad categories and are certainly not sufficient in either number or scope of focus:

- **Clinician Involvement in Customizing Low-Tech Base Products:** Medical device companies might seek inputs from a hospital's doctors and surgeons in order to customize already manufactured low-tech equipment like OT Tables, OT Beds etc.

- **Clinician Involvement in Customizing Software for High-Tech Imaging:** A recent trend is to provide customized, integrated software solutions for high-end imaging like CT, MRI etc. based on the specific needs of radiologists and technical staff. E.g. Siemens is involving physicians in upgrading system platforms to reduce radiation dosage without affecting image quality. Philips is also working with hospitals to develop Radiation Therapy Planning Systems for the Indian market. Such systems allow for faster, more accurate and more flexible planning and modification of oncology treatment.

- **Clinician Buy-in for marketing ready products:** International medical consumables and implant companies generally involve clinicians in testing and authenticating products prior to their commercial launch in the Indian market. E.g. Philips engaged Indian clinicians for marketing an innovative product in India called Universal Spectacles which was developed by the VU University Medical Centre and D.O.B. Foundation.

Most of these engagements do not involve healthcare providers from the initial stages of product/technology development. Further, a majority of such partnerships are focused on performing reverse engineering and minimal innovation to bring down the cost of products. Therefore, they have less than optimum impact on improving clinical outcomes or patient recovery time.

We need to look westward in this regard, especially to the US and Europe, where many successful partnership models exist in the field of medical technology development and upgrade. Research conducted in the US suggests that innovative medical devices often arise from physicians' inventive activity and that it is important to maintain an open environment for physician-industry collaboration. Such associations work as test beds for new and often path-breaking products and service ideas to improve patient care and clinical outcomes. Medical technology developed thus, is generally either cheaper, or more practical to use, or more portable, or less invasive, or having better quality if not all of these. By virtue of these attributes, such products find wider acceptance among clinicians and patients, thereby making diagnosis and treatment faster, simpler and more effective.

In the Indian context, these synergistic associations assume even greater significance in the light of severe shortage of hospital beds and acute need for a shorter hospital stay. We need technology that can be taken closer to patients' homes, thereby reducing the burden on resource-starved hospitals and healthcare centers. Also required is technology that brings down the turnaround time for diagnosis, integrates patient monitoring with therapy, and reduces the cost and duration of treatment. Our hospitals need medical consumables which are easier to use, have longer shelf life, and are better equipped for infection control. We need remote monitoring to become a part of primary healthcare. This will go a long way in improving not only access, but also effectiveness and throughput of healthcare services.

Achieving the above objectives needs a proactive and well-planned approach from medical technology manufacturers to productively engage academic and non-academic hospitals and their clinicians in the product development process, right from ideation to discovery, testing and implementation. The intent should be to inculcate this collaborative approach as a culture across the healthcare ecosystem.

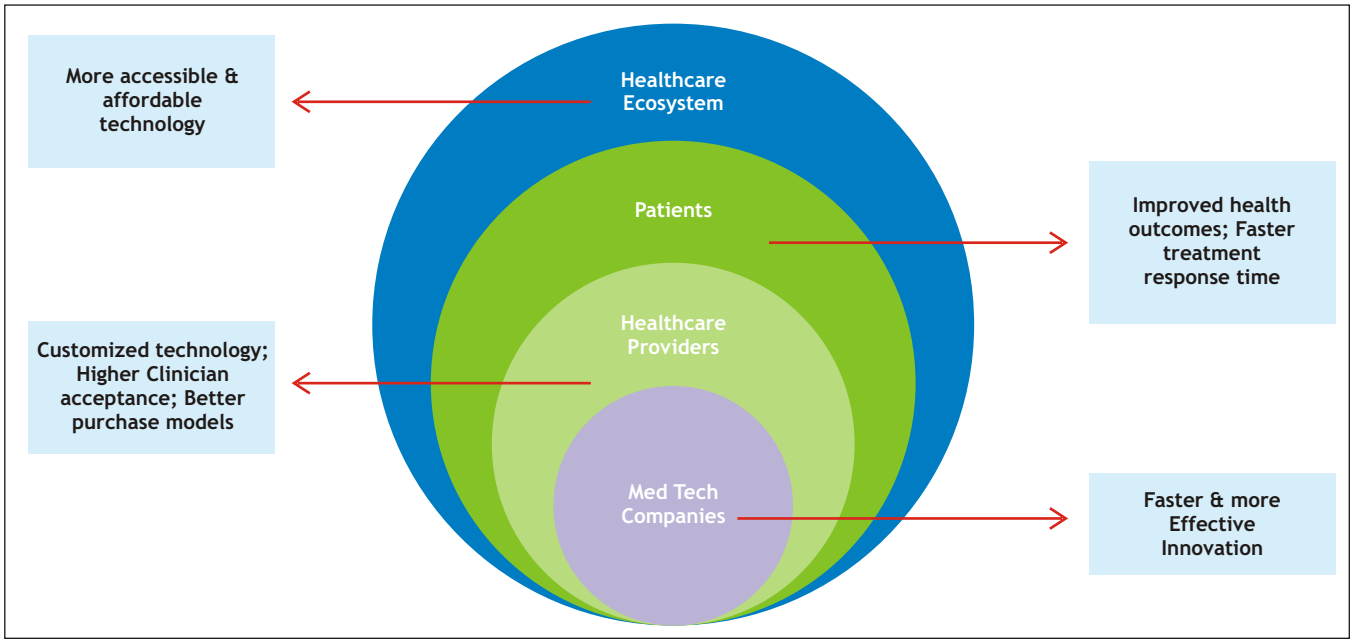
If executed well, this could emerge as a win-win business model for both technology providers and healthcare delivery providers.

Technology players (whether Indigenous or MNCs) can benefit from the extensive clinical know-how and experience of practicing clinicians. Doctors can provide an unparalleled practical insight into unmet clinical needs, patient preferences, the challenges of using a medical device and scope of improving an existing technology or creating a new product. **This is crucial for medical technology companies as the average life cycle for a new product is around two years, making new product development imperative for survival in the market.** Clinician engagement will make this process faster, more fruitful and help the medical technology company to outdo imitators and competitors.

Hospitals and clinicians stand to benefit as the product would be developed as per their specifications and thus will be easier to use and of superior quality. At the same time, the hospital's top management can work with the medical technology company to design innovative mechanisms of financing the purchase and maintenance of the developed product.

Patients in turn are likely to receive better treatment as advancement in medical technology is directly linked with improved health outcomes, faster response time and lesser requirement for in-patient hospitalization. With the increasing use of home-care options, patients are now more worldly aware and there are start-ups that are providing medical equipment and nursing manpower on rent/ for charge to meet home care needs.

Benefits for the multiple stakeholders involved in the partnership model



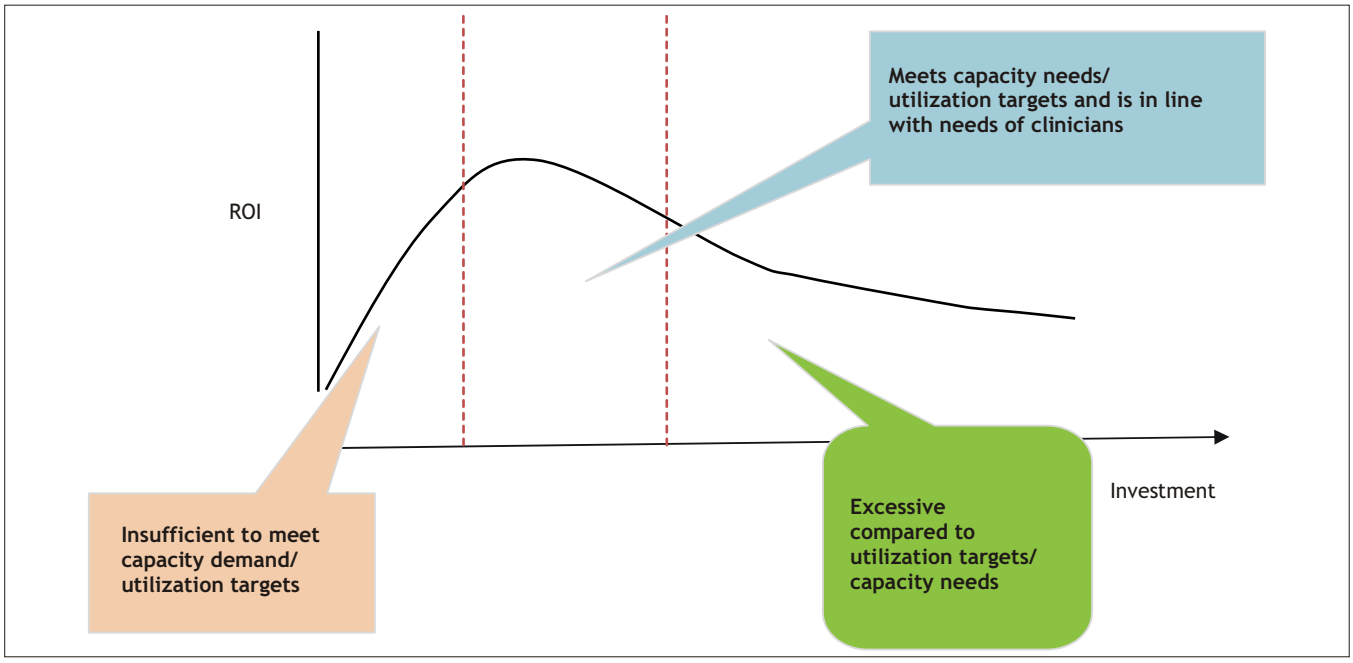
Source: Technopak Analysis

However, there are many impediments that need to be overcome to turn this concept of a collaborative model into a reality. First and foremost, there needs to be a radical shift in the way that medical technology companies are perceived by healthcare delivery providers. Until now, they have been handled as transaction entities which merely supply and maintain/repair equipment and have no significant role to play in clinical care. They should instead be engaged as partners in achieving better health metrics. Likewise, academia and research institutions need to function as technology transfer organizations (TTOs) and forge formal associations with medical technology companies to bridge the gap between theoretical and applied science.

Another critical challenge is the lack of R&D funding for domestic medical technology firms. For the smooth conduct of a collaborative process, medical technology companies need to deploy manpower in the hospital(s) or research institution for the period of study, which translates into extra cost to the company. This often works as a deterrent to the process, especially in the indigenous development of high-end imaging technology. Government support in the form of financial subsidy for R&D collaboration can provide the much required impetus to such partnerships. Lack of availability of trained manpower in the field of biomedical engineering, and research in our country is also a hurdle to achieving a synergy between the medical technology company and healthcare provider. Greater emphasis on R&D activities will be a key step in addressing this issue as well.

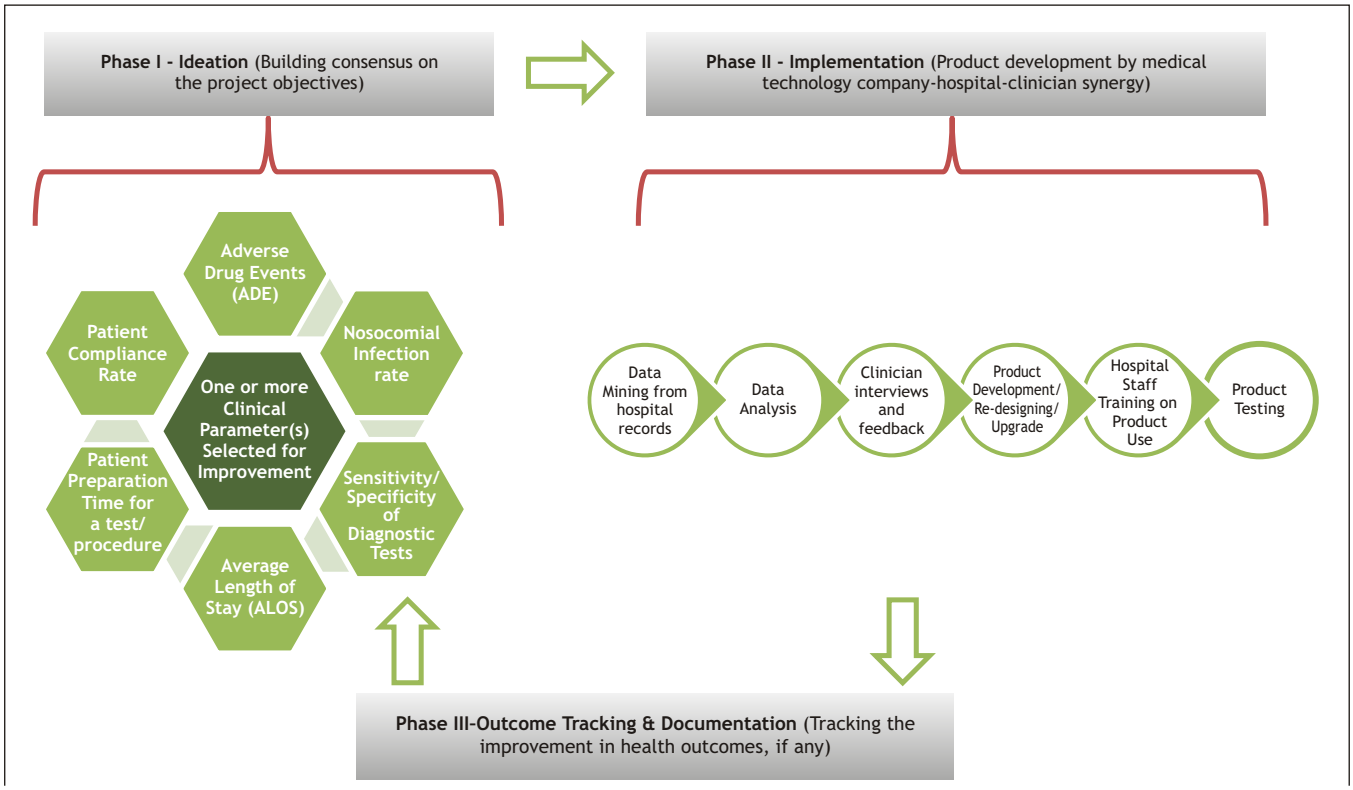
From another perspective, planning capital expenditures (CAPEX) every year is a challenge for hospital CEOs. Every CEO would like to hit the bull's-eye where the technology acquired (or invested in) meets the needs of clinicians as well as the capacity utilization targets of operations managers and achieves desired ROI.

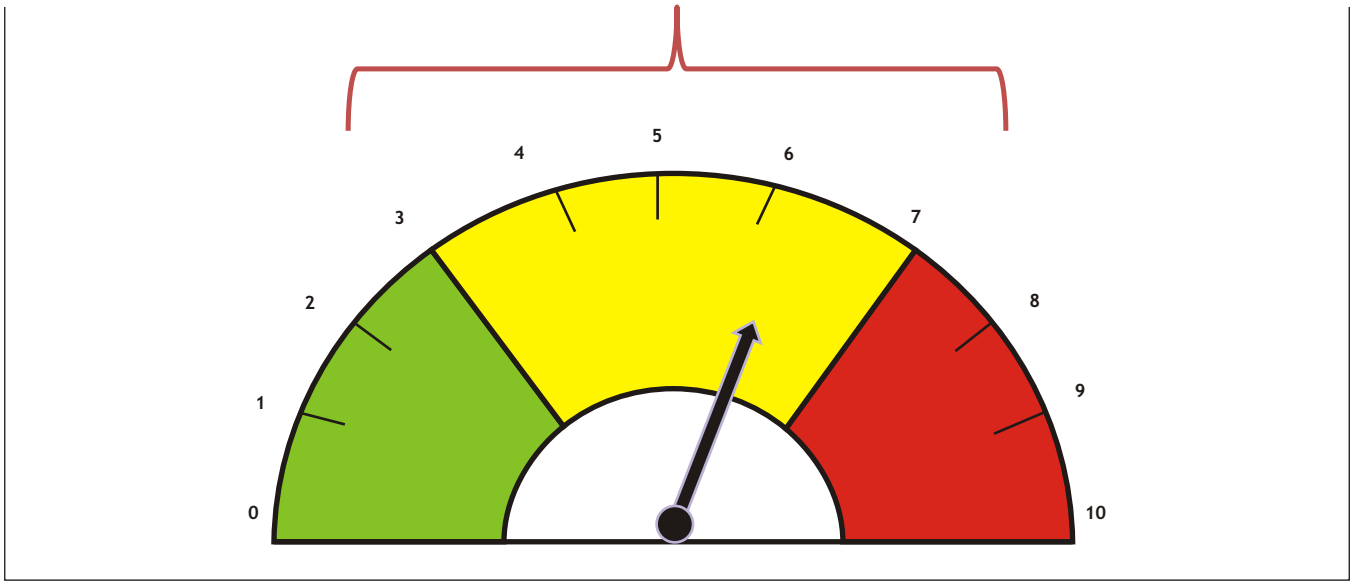
In the light of above challenges, we need a framework of collaboration which is effective yet easy to implement, and results in quantifiable improvement in one or more clinical care parameters. It is essential that the outcome of every collaborative exercise is continuously tracked and well-documented so that it serves as a benchmark for future projects.



Source: Technopak Analysis

A Representative Framework of Collaboration between a Medical Technology Company and a Healthcare Provider





Source: Technopak Analysis

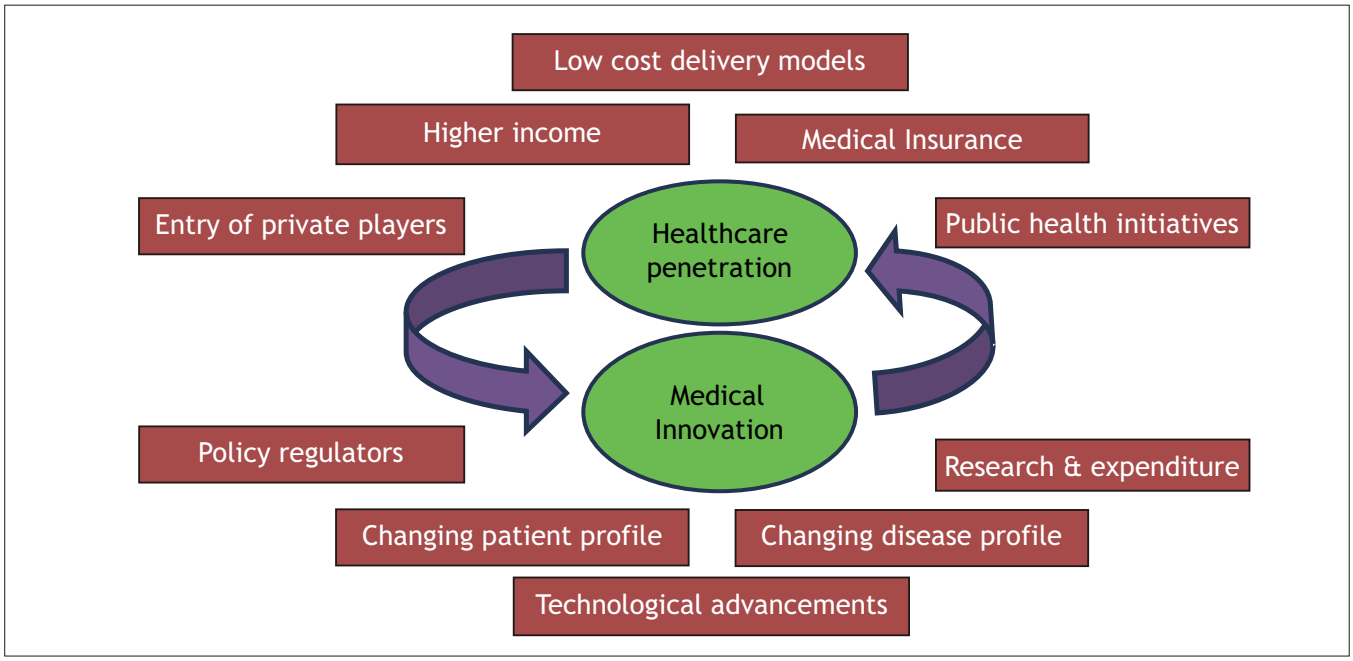
Aside from Product Development, from a customer (healthcare provider) perspective there is scope to engage in process improvement projects. This is where providers can bring about a shift in commercial engagements that leverage expertise of companies to impact utilization and clinical indicators through partnerships. The above proposed model could also be adapted to drive this agenda. E.g. For high value equipment such as MR, CT and Cath-lab, companies can partner with hospitals to maximize utilization and develop scanning protocols apart from regularly training technologists.

Fortunately, some medical technology companies have already initiated the process of establishing such process improvement partnerships with hospitals, though on a small scale. The other good news is that these associations are taking place not only in medical imaging but historically neglected areas of medical implants and consumables. A few industry examples are as follows:

- Certain manufacturers of Path Lab equipment are collaborating with hospitals to calibrate their equipment on a daily basis. The hospital benefits on account of reduction infrequency of equipment breakdown, near-zero downtime, besides enhanced accuracy and quality control of diagnostic results. The technology company reduces its cost of servicing the equipment as most of the issues are addressed at an early stage.
- For OT, sterilization between two cases impacts TAT (Turn around time) for surgeries and in turn utilization. Companies like Johnson & Johnson are working with hospitals to better train OT Technicians and nursing teams in strictly adhering to the sterilization protocols.
- Medical device companies are undertaking projects with hospitals to improve VAP rates. Such initiatives essentially involve valve disinfection, compliance and monitoring protocol development and implementation.
- An Australia based company has worked with some hospitals to design customized orthopedic implants as per the anatomic specifications of the patient. Such implants decrease the amount of bone removed, offer better alignment with the patient's joint, and improve the overall success rate of surgery.

III. Conclusion

In India, as elsewhere, a cause and effect relationship exists between medical innovation and greater penetration of healthcare.



With key enablers and PE funding driving healthcare delivery in the Tier I and Tier II cities, there is bound to be much traction for technology providers. As the scale of healthcare delivery widens, it is an imperative for all stakeholders to shake up the current levels of synergy.

Seamless movement of patients among healthcare delivery channels is the target for many providers to gain a differential advantage. However, achieving consistency in the quality of outcomes is a constant challenge. Both these aspects require healthcare providers to view investment in technology as a strategic imperative. In line with this, medical technology players will need to engage as partners to achieve common objectives.
Integration of technology is costly and domestic medical technology companies have an opportunity to partner with the new low-cost healthcare delivery players. It is envisaged that such partnerships will contribute to developing innovative technologies that are end-user driven and adapted to the low-cost spectrum.

At the same time, medical technology companies can also strengthen partnerships with healthcare providers to engage in initiatives that positively influence key clinical indicators of healthcare providers. These partnerships can also be extended to influence some of the contingent operational processes where medical technology companies can add significant value.

As the regulatory environment evolves, a renewed concerted effort by stakeholders of the healthcare industry will be a turning point in this dimension of healthcare delivery transformation.

About CII

The Confederation of Indian Industry (CII) works to create and sustain an environment conducive to the growth of industry in India, partnering industry and government alike through advisory and consultative processes.

CII is a non-government, not-for-profit, industry led and industry managed organisation, playing a proactive role in India's development process. Founded over 117 years ago, it is India's premier business association, with a direct membership of over 7100 organisations from the private as well as public sectors, including SMEs and MNCs, and an indirect membership of over 90,000 companies from around 250 national and regional sectoral associations.

CII catalyses change by working closely with government on policy issues, enhancing efficiency, competitiveness and expanding business opportunities for industry through a range of specialised services and global linkages. It also provides a platform for sectoral consensus building and networking. Major emphasis is laid on projecting a positive image of business, assisting industry to identify and execute corporate citizenship programmes. Partnerships with over 120 NGOs across the country carry forward our initiatives in integrated and inclusive development, which include health, education, livelihood, diversity management, skill development and water, to name a few.

The CII Theme for 2012-13, 'Reviving Economic Growth: Reforms and Governance,' accords top priority to restoring the growth trajectory of the nation, while building Global Competitiveness, Inclusivity and Sustainability. Towards this, CII advocacy will focus on structural reforms, both at the Centre and in the States, and effective governance, while taking efforts and initiatives in Affirmative Action, Skill Development, and International Engagement to the next level.

With 63 offices including 10 Centres of Excellence in India, and 7 overseas offices in Australia, China, France, Singapore, South Africa, UK, and USA, as well as institutional partnerships with 223 counterpart organisations in 90 countries, CII serves as a reference point for Indian industry and the international business community.

About Technopak

India's leading management consulting firm with more than 20 years of experience in working with organizations across consumer goods and services.

Founded on the principle of "concept to commissioning", we partner our clients to identify their maximum-value opportunities, provide solutions to their key challenges and help them create a robust and high growth business models.

We have the ability to be the strategic advisors with customized solution during the ideation phase, implementation guide through start-up and a trusted advisor overall.

Drawing from the extensive experience of more than 175 professionals, Technopak focuses on six major divisions, which are Fashion & Textile, Retail & Consumer Goods, Healthcare, Education, Food & Agriculture and Leisure & Tourism.

Our key services are:

Business Strategy : Assistance in developing value creating strategies based on consumer insights, competition mapping, international benchmarking and client capabilities.

Start-Up Assistance : Leveraging operations and industry expertise to 'commission the concept' on turnkey basis.

Performance Enhancement : Operations, industry & management of change expertise to enhance the performance and value of client operations and businesses.

Medical Technology: Assistance in Medical Equipment planning, selection, procurement, installation & commissioning for the hospitals and supporting the maintenance, full-fledged Biomedical Engineering and Accreditation services.

Capital Advisory : Supporting business strategy and execution with comprehensive capital advisory in our industries of focus.

Consumer Insights : Holistic consumer & shopper understanding applied to offer implementable business solutions.

Our Divisions

Healthcare Strategy & Design

At Technopak, our team is dedicated to assist healthcare clients manage their businesses through innovative solutions focusing on short-term as well as long-term results. Our expertise in the field of strategy development and implementation assistance, and performance enhancement has allowed us to perform various assignments across the entire healthcare spectrum and at various geographical locations. Our team comprises of architects, planners, designers, engineers, business analysts & research professionals offers a variety of services that cover the entire gamut of Hospitals and Healthcare operatives.

The Healthcare Design division was set up in 2008 and comprises of a dedicated team of professionals with wide experience in the development of projects related to the Healthcare industry. Our team assists in creating "healing environment" for the hospital, encompassing state of the art technology, and supporting both the comfort of the patient and the patient care comfort of the staff.

Textile & Fashion

With almost 20 years of experience in delivering end-to-end solutions to the entire gamut of the textile industry, right from fibre to retailing, the Fashion& Textile division at Technopak assists the textile and apparel organizations in optimizing their profits through enhancement and expansion. Many leading Indian and international Textile manufacturers and Apparel brands have benefited from our offerings in the areas of business planning and strategy, apparel operations, supply chain management and strategic alliances. Our team consists of top calibre advisors who have worked closely with a diverse group of clients comprising textile manufacturers, apparel retailers, garment manufacturers and exporters, apparel sourcing organizations, trade promotion councils, industry associations, international development bodies, and financial institutions as well as central and state governments.

Retail & Consumer Products

Technopak aids retailers and consumer product companies in formulating growth strategy and performance enhancement mandates. Over the past two decades, we have worked on various facets such as entry into the Indian market, development of new category, activation of new retail formats, channel development, product extension, region expansion etc. One key reason why Technopak is considered the industry leader is the relentless focus on the Indian Market. We help clients understand the market dynamics in India and help them arrive at the best method to grow business in India. Our Retail and Consumer product expertise helps gain a competitive edge by providing execution capabilities and corporate strategies.

Food & Agriculture

Technopak's Food Services & Agriculture team comprises of established domain experts who build and enhance the business performance of organizations which are either working in the sector or are willing to enter this space. Our end-to-end solutions are customized as per the business's requirements and capabilities. We continuously strive to create strong industry relationships and work for a global footprint by delivering a wide range of services to organizations that operate or wish to operate in the Food and Agriculture sector, in India as well as internationally.

Education

Technopak's Education division has a vast understanding of the sector in terms of industry environment, growth potential, regulation and policy, which has enabled us to become a thought leader in the sector. Technopak caters to all the education segments – K-12, Higher Education, Vocational Training and ancillaries. Innovative business models and government thrust on privatization has led to assertive participation by private organizations. Such participation spans various levels of investment and operational scale, be it organization planning for expansion in the country or foreign institutions aiming to foray into the Indian education sector.

Technopak Advisors

4th Floor, Tower A, Dlf Building 8, Dlf Cyber City, Phase-II, Gurgaon 122 002
(National Capital Region of Delhi), T : +91 124 454 1111, F: +91 124 454 1198, www.technopak.com

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Mr. R Asok Kumar, Director (QA& RA- Indian Subcontinent), Covidien Healthcare India Pvt Ltd
Mr. Sudhakar Mairpadi, Director - Quality & Regulatory, Philips Electronics India Ltd (Health Care Sector)
Mr. Mahesh Natarajan, Director, CII

Contacts - CII

Mahesh Natarajan
Director (Healthcare and IT, ITeS)
T: + 91 11 24629994 - 7
Email : mahesh.natarajan@cii.in

Confederation of Indian Industry
The Mantosh Sondhi Centre
23 Institutional Area, Lodi Road
New Delhi - 110 003
F: + 91 11 24615693

www.cii.in

Contacts-Technopak

Faisal Siddiqui
Vice President - Healthcare
faisal.siddiqui@technopak.com
Mobile: +91 98713-33441

Murali Rao
Associate Vice President - Healthcare
E-mail: murali.rao@technopak.com
Mobile: +91 88261 00444

Mohit Kumar Chaturvedi
Associate Vice President - Healthcare
mohit.chaturvedi@technopak.com
Mobile: +91 98718 85444

Technopak Advisors Pvt. Ltd.
4th Floor, Tower A, Building 8, DLF Cyber City, Phase II, Gurgaon 122 002 (National Capital Region of Delhi)
T: +91-124-454 1111 | F: +91-124-454 1198

www.technopak.com

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