TATA CONSULTANCY SERVICES

Building on belief

Whitepaper

Resilient Strategy in Medical Device Business will Drive Future Healthcare

Challenges conceal opportunities

Abstract

A combination of disruptive forces like worldwide lockdowns, travel restrictions, recession, and large-scale unemployment forced the medical device manufacturers to reimagine their position in the healthcare ecosystem during 2020. Apart from challenging traditional business models, the impact of the pandemic was felt across the healthcare value chain. These disruptions created new opportunities for medical device manufacturers to emerge as digital health companies. Today, MedTech leaders are being forced to look beyond the normal sector boundaries to explore innovative solutions for creating a solution ecosystem. Industry agnostic mergers and acquisitions, portfolio diversification, and open-source equipment design are being increasingly leveraged by medical device companies to emerge as partners of choice. With such trends accelerating, the global medical device market is expected to be worth USD 603.5 billion in 2023[1]. Thrust into the spotlight suddenly, medical device companies need a resilient business strategy to position themselves for future growth.

The Unique Impact of COVID-19 on MedTech

Standing at the crossroad of crisis and opportunity, the MedTech industry is in a unique position in the 'new normal.' On the one hand, the diagnostic players involved in aiding virus detection are playing a pivotal role, and on the other, manufacturers of PPEs, ventilators, ICU beds, etc., are facing demand burdens. There are various other business players who are adapting to a new reality of disrupted supply chains, squeezed financials, and reduced elective surgeries. As digital health enablers emerge as growth drivers today, MedTech companies must redesign their business strategies to stay in the race.

Redrafting business strategies for a post-pandemic world

Medical device companies must reinvent themselves as connected healthcare solution providers and be purpose-driven for creating exponential value.

Diversification is Crucial

The pandemic has taught medical device manufacturers the importance of portfolio diversification to gain resilience. The emergence of alternative sites of care like ambulatory surgery centers and increased adoption of digital health and connected devices pushed MedTech

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[1] https://www.thebusinessresearchcompany.com/report/medical-devices-market#:~:text=Medical%20Devices%20Market%20Size,a%20rate%20of%20%2D3.2%25

companies to respond with new and innovative products. As a result, pure-play medical device manufacturers, catering to select few procedures and therapies associated with elective surgeries, witnessed a significant demand drop. On the other hand, OEMs producing critical care products such as PPEs, ventilators, and diagnostics for detecting COVID-19 infections experienced a sharp rise in demand. This proves that establishing strong partnerships to enable diversification and horizontal integration helps in developing a resilient ecosystem, especially during a crisis.

Outcome-as-a-service should Gain Momentum

MedTech companies are increasingly looking to tread beyond conventional product-and-price business models and explore new techniques of demonstrating the value of their offerings to providers. Rather than being just product sellers, MedTech companies must have a presence across the complete journey of the customer – be it patient, physician, surgeon, or providers – for offering personalized, value-based care. Leaders who emerge as "Partners of Choice" across the ecosystem by delivering 'outcome as a service' will define the future of the industry. Global MedTech leaders are exploring opportunities with health insurers and hospitals for connecting reimbursements for specific products with their ability to improve patient health outcomes.

Revisiting Innovation

Although the pandemic caused significant disruption to the MedTech industry, medical device companies are ushering in a new era of connected, data-driven devices. Such devices are well-integrated into an advanced, connected health ecosystem that demands more focus on developing new, innovative, and differentiated solutions beyond mere products. Disruptions through personalized solutions, new business models, and technology are essential to address unmet needs across the healthcare value stream. MedTech companies are increasingly adopting open innovation models and cloud-based governance to dig deep into large, location-independent talent pools for business continuity and to enable future transformation and growth.

Consolidation

The pandemic has sparked further consolidation in the industry. Smaller and midsized players with stressed financials are succumbing to the economic crisis triggered by the global pandemic, and that has opened up a buyer's market. Having recapitalized through debt and follow-on offerings, cash-rich MedTech companies will use M&A as a key business strategy to expand their market share. In its 2021 EY M&A Firepower report[2], Ernst & Young predicts active M&A activity for MedTechs in 2021. Driven by diagnostics and digital health, MedTech companies will be more active dealmakers, focusing on high-value deals that can close growth gaps.

Safety Comes First

Medical device manufacturing typically involves heavy manual operations, so it is imperative to minimize the risk of infection at the workplace while maintaining such operations.

Automation in manufacturing lines, packaging, inspection, material handling, and warehouses using robots, co-bots, and smart workstations significantly reduce risk for workers. Digital transformation in manufacturing is another pathway to achieve higher efficiency while improving workplace safety. Data-driven decision-making, preventive and predictive maintenance through IoT platforms and connected assets, virtual simulated testing utilizing digital twins, and connected logistics are examples of digital tools that are driving such transformations. Manufacturers are enhancing worker safety through mobile and cloud-based physical distancing technologies, thermal sensing, personal protective equipment (PPE) tracking, and remote assistance using Augmented Reality. While such technologies are improving worker safety and enabling business continuity, they are also laying the foundation for strong efficiency gain in operations.

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[2] https://www.ey.com/en_gl/life-sciences/how-the-pandemic-has-changed-the-rules-for-life-sciences-deals

Supply Chain Alternatives

The pandemic showed us that reliance on sourcing from one geography could be really costly. With tough lessons learned, companies are considering distribution models that ensure supplies are available closer to key markets. Seeking to de-risk supply chains, the medical device companies need to revisit and rethink their supply chains as the focus shifts to reducing risk and building resilience. The pandemic has resulted in a rising demand for in-home administration of medical interventions. Medical devices must be made available in alternate locations through different delivery channels as safety concerns drive the adoption of self-serve models. Medical device companies need a reliable network of suppliers - outside the conventional medical supply chain - who can cater to these changes in demand and availability. Having multiple options and pathways could reduce supply risks and dependence on one geography. Leveraging digital technologies for accurate demand planning and forecasting will result in greater visibility across the supply chain.

Reimagining Healthcare Delivery

The COVID-19 crisis has forced the healthcare delivery ecosystem to merge its offline and online delivery models. With high connectivity networks like 5G now available to the consumers, telemedicine or telehealth has become extremely popular as it offers convenience and better patient-centric care. The crisis has expedited a shift that otherwise faced slow adoption. According to an article published by Everest Research[3], private 5G adoption, with its significantly higher bandwidth and lower latency, will accelerate with the rest of the virtual healthcare model. In certain therapeutic areas, the shift towards outpatient or ambulatory surgery centers has been underway for some time now. The pandemic has caused a further shift in that direction. Hence, medical device companies are customizing their solutions and adapting their business working models to gain significant competitive advantage and enjoy market leadership. After highlighting the importance of diversification and the need to hedge risks, the pandemic has acted as a catalyst for transformation and the emergence of a new healthcare delivery model.

Enabling business transformation

As medical device and diagnostic (MDD) companies continue their journey in this unchartered territory, there is need to collaborate and partner with strong technology firms for leveraging complementary capabilities. Digital technologies can be used to support dynamic sourcing networks by identifying bottlenecks, developing agile supply chains and can also help in mergers and acquisitions by selecting suitable candidates as well as integrating acquired companies.

In fact, technology disruption is evident across the healthcare value chain—from the increasing acceptance of telemedicine to the use of automation and IoT in manufacturing. Healthcare has been upended in real-time, and whatever the 'new normal' looks like, digital is poised to take center stage.

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[3] https://www.everestgrp.com/2020-07-covid-19-will-accelerate-private-5g-adoption-blog-.html

About The Authors

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Barish Banerjee heads the medical devices engineering business segment within the TCS Lifesciences North America Unit. He started his career as a product development engineer in the orthopedic domain and has been a co-inventor in several patents. With 20 years of industry experience, Banerjee has been instrumental in building and managing large partnerships, successfully formulating and executing transformational strategies for medical device companies. He holds a Bachelor's degree in Mechanical Engineering and a Master's in Business Administration.

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