

CORPORATE SOCIAL RESPONSIBILITY

Purpose, Digitalization, and Scale Can Address the Grand Challenge of Universal Healthcare

by Loizos Heracleous



Image Credit | Owen Beard

The healthcare grand challenge is to bring high quality healthcare to all regardless of financial position.

The healthcare grand challenge

Only 1 out of 15 people who need a heart operation in low and middle income countries receive one, and six out of eight billion people globally do not have access to reliable health care.¹

Since 2000 Narayana Health (NH), an Indian healthcare organization has been offering life-saving heart and other types of surgeries at a cost that patients at the bottom of the pyramid can afford, at global quality levels.² Its purpose is to bring high quality healthcare to all regardless of financial position. This is a literal life saver in an environment where millions of patients go untreated for serious health issues because of inadequate provision.³ Like many low-income countries, India spends just 2% of GDP on healthcare compared to the minimum 5% recommends by the WHO; for comparison advanced economies spend over 10%.

RELATED CMR ARTICLES

"Value Impedance and Dynamic Capabilities: The Case of MedTech Incumbent-Born Digital Healthcare Platforms" by Asta Pundziene, Tobias Gutmann, Marc Schlichtner, & David J. Teece

"Unlocking Innovation in Healthcare: The Case of the Patient Innovation Platform" by Carmelo Cennamo, Pedro Oliveira, & Leid Zejnilovic

Ambidexterity at Narayana Health

Whereas the cost of open heart surgery is around \$150,000 in the United States, and between \$30-50,000 in other advanced economies, in India it is around \$5,500. At NH it stands at \$1,500,⁴ with ongoing efforts to reduce it to under \$1,000. Yet, the medical outcomes for NH patients consistently meet or exceed key international benchmarks,⁵ a feat of ambidexterity⁶ extremely difficult to accomplish. NH is not a charity dependent on donations but a competitive, profitable socially conscious enterprise.

At NH high patient numbers deliver economies of scale and economies of learning, where surgeons who perform 5 to 6 surgeries a day (vs one to two per day in advanced economies) gain immense expertise and make less errors. 45 facilities across India and 30 specialties enable NH to benefit from economies of scope such as centralized purchasing, shared services and infrastructure. Continuous improvement of operational processes squeeze out inefficiencies, and extensive use of technology tracks and measures processes, consumables, and medical outcomes.

Deeply held purpose as driver for change

I recently spent a few days conducting fieldwork at the flagship NH Health City in Bangalore. Beyond operations, I witnessed how deeply held purpose grants meaning to what people do and inspires out-performance. I also saw proof of concept of how digitization can enable large scale medical provision while fostering quality; and how a shift "from atoms to bytes" can ultimately foster systemic change to address the grand challenge of healthcare not just in India but globally.

Everyone I spoke with at NH had purpose as their North star. In an hour of conversation with the founder Dr Devi Shetty for example, he never once mentioned company financials. As c-suite leaders said, he knows that financials will follow as the purpose is being met. Rather, he outlined his philosophy that scaling up healthcare provision using digitalization reduces costs and enables scale that will ultimately enable India, and one day the world, to dissociate healthcare from affluence.

NH is the vehicle for achieving this purpose, which percolates throughout the organization to the coalface. Driven by purpose, nurses, medical technicians, technologists and doctors take it upon themselves to continuously seek process innovations to drive out inefficiencies and scale up medical provision, while meeting or exceeding global standards of medical quality outcomes; an instance of contextual ambidexterity⁸ in action.

"From atoms to bytes": Digitization as the key

NH sees digitization as the avenue for addressing the grand challenge of healthcare, since technology can enable diagnostics and treatment at a distance and on a large scale with minimal marginal cost. Brilliant computer scientists and programmers (one of India's key resources) are embedded with doctors and other medical staff in operations, rather than developing software from afar, potentially causing value impedance. Over several years they have co-created and refined Athma, a hybrid platform aiming for ecosystem integration on which medical software applications can operate; and an analytics platform, Medha, that can deliver detailed insights into medical processes and outcomes to enhance real time medical decisions and minimize error.

Bespoke mobile apps that optimize various operational processes such as patient admission, medical test processing, patient ongoing care, billing, and patient discharge run on the Medha platform. These are continuously improved through feedback loops during use. The front-facing user experience is structured after social media apps in order to capitalize on medical personnel's familiarity and facilitate adoption.

The aim of digitization is to reduce manual inputs in operational processes as much as possible in order to be able to scale up patient numbers, optimize and speed up patient experience, minimize errors, and reduce costs per patient. Rather than a temporal ambidexterity approach that advocates linearly focusing on either exploitation or exploration at different time periods, digitization at NH accomplishes both simultaneously.

Scale and systemic change in global healthcare

NH treated 3.5 million patients last year, with the target being 100 million. The key metric prioritized by NH is numbers of patients treated. In an effort to foster global ecosystem change in healthcare, NH is making the Athma and Medha platforms and associated apps available to any hospital that wishes to employ them, at a price that they can afford. Four large healthcare chains in India are already on board. NH has developed technological innovations within the dominant business first, together with the users, and subsequently formed subsidiaries to make them available to the world; rather than a structural ambidexterity process which advocates the reverse.

Frugal healthcare models may hold important lessons for the world. ¹² The ultimate aim of NH is systemic change in medical provision via digitalization and scale around the world to make quality healthcare affordable to all. Its track record in India suggests it might just go on to achieve this.

References

- 1. Dominique Vervoort, JaBaris D. Swain, A. Thomas Pezzella and Jacques Kpodonu, "Cardiac surgery in low- and middle-income countries: A state-of-the-art review", *Annals of Thoracic Surgery*, 111 (2021):1394-401; Peter Zilla et al., "Globl unmet needs in cardiac surgery", *Global Heart*, 13, 4 (2018): 293-303.
- 2. Vijay Govindarajan and Ravi Ramamurty, "Delivering world class health care, affordably", *Harvard Business Review*, November (2013): 2-7.
- 3. Tarun Khanna, V. Kasturi Rangan and Merlina Randocaran, "Naranana Hrudayalaya heart hospital: Cardiac care for the poor (A)", *Harvard Business School Case 9-505-078*, (2011).

- 4. Varun Shetty, Anesh Shetty, and Devi Prasad Shetty, "Developing a sustainable highend cardiovascular surgery program in emerging economies: The Narayana Health (NH) model structured on affordable, accessible. Tertiary level care." In Jacques Kpodonu (Ed)., *Global cardiac surgery capacity development in low and middle income countries*, (Springer, Cham, 2022): 499-507.
- 5. F. Erhun et al., "Are cost advantages from a modern Indian hospital transferable to the United States?", *American Heart Journal*, 224 (2020): 148-155; Robert F. Graboyes, "1332 waivers and healthcare supply: Lowering costs, improving quality, and expanding access", Public Interest Comment, Mercatus Center, (2019), July 2.
- 6. Charles O'Reilly and Michael Tushman, "Organizational ambidexterity: Past, present and future", *Academy of Management Perspectives*, 27, 4 (2013), 324-338.
- 7. Varun Shetty and Deviprasad Shetty, "Converting atoms into bytes", *Annals of Thoracic Surgery*, 106 (2018): 643-645.
- 8. Sebastian Raisch and Julian Birkinshaw, "Organizational ambidexterity: Antecedents, outcomes and moderators", *Journal of Management*, 34, 3 (2008): 375-409.
- 9. Devi Shetty, "Innovations in healthcare affordability and delivery An Indian perspective", In *Global Innovation Index 2019, Creating Healthy Lives The Future of Medical Innovation*, Chapter 13: 163-166.
- 10. Asta Pundziene, Tobias Gutmann, Marc Schlichtner and David J. Teece, "Value impedance and dynamic capabilities: The case of MedTech incumbent-born digital healthcare platforms", *California Management Review*, 64, 4 (2022): 108-134.
- 11. Carmelo Cennamo, Pedro Oliveira and Leid Zejnilovic, "Unlocking innovation in healthcare: The case of the patient innovation platform", *California Management Review*, 64, 4 (2022): 47-77.
- 12. Yasser Bhatti et al., "Global lessons in frugal innovation to improve health care delivery in the United States", *Health Affairs*, 36, 11 (2017): 1912-1919.



Loizos Heracleous (Follow)

Loizos Heracleous earned his PhD at the University of Cambridge and is Professor of Strategy at Warwick Business School and fellow at the University of Oxford. His research has been published in over 80 papers and 10 books. His areas of interest include ambidexterity, organization change and technology use.