LOW COST HEALTHCARE INNOVATIONS – MARKETING MIX

Management

Dr. Manita D. Shah	Professor, Jain University
Julie Sunil	Research Scholar, Bharathiar University, Coimbatore -46

ABSTRACT

India has been home to innovative low cost solutions across product categories owing to its population size and economic constraints. The poor healthcare scenario in India has driven the need for cost effective measures on par with global quality standards. The challenges in accessibility, continuous care, healthcare monitoring and skilled manpower shortages have been innovatively addressed by entrepreneurs in India. Unlike the west, India offers wider scope to experiment and innovate on the go at very low cost and thus offers ample scope for entrepreneurs to work on solutions without worrying about regulations and regimentation.

Healthcare innovations emerging from India and designed for the poor have been identified for the in-depth case analysis. The resulting model of new product development and marketing is condensed into a 10 P framework. It is shaped from the lessons drawn from the steps, measures and innovations made by entrepreneurs who were driven by concern for the marginalized without compromising on quality.

KEYWORDS:

marketing-mix, healthcare, low-cost, strategies, opportunities, innovations.

INTRODUCTION

Frugal Innovation in healthcare is the key to inclusive growth and development, especially for a developing country like India. It has become a strategic option not just for aspiring entrepreneurs, social enterprises or government agencies but also for MNC's. The swelling population puts the onus of healthcare on the public sector; however, the contribution has been static where the 12th Five Year Plan envisages public funding on core health at 1.87 percent of GDP. In order to reach such a vast market, sound planning and implementation of marketing will have to be employed to make the opportunity a win-win model for both the public and private investors.

According to Indian Brand Equity Foundation report, the Indian Healthcare sector will grow at the Compounded Annual Growth Rate of 22.9 per cent during 2015-20 (Indian Brand Equity Foundation , 2017).

Reduced funding by the Indian Government has been attributed to historic failures on the part of the Ministry of Health and Family Welfare (MHFW) to spend its allocated budget fully. This is despite increasing demand, due, in part, to growing incidence of age- and lifestyle-related chronic diseases resulting from urbanization, sedentary lifestyles, changing diets, rising obesity levels, and widespread availability of tobacco products. India's health care sector witnesses close to 50 percent spend on in-patient beds for lifestyle diseases, especially in urban and semi-urban pockets.

The problem: There is a need for a simple marketing model for innovative healthcare solutions. The spurt of innovative healthcare solutions that have emerged in response to India's limitations offer the learning that can guide new entrepreneurs in securing success at less cost and time.

The Methodology: Twenty five cases of innovations in health care were identified. The cases of ventures that had perfected a system through iteration and isolation were selected for in-depth analysis. The selected cases represent product and service related innovations across the core healthcare issues that India is struggling to address. The continuous recurrence of few approaches made it possible to identify the patterns leading to the success of the venture.

Table 1: The Cases Studied

	Organisation Name	Category	Drivers of Change
1	Embrace	Product- Infant Warmer	Rahul Panicker, Naganand Murty, Jane Chen, Linus Liang
2.	Miracradle	Product- Infant Cooler	Niranjan Thomas, CMC Vellore
3	GE	Product - Electro Cardiogram (ECG) – Mac 400	GE's Global Initiative - Healthy Imagination Project
4	Lupin Labratories	Product -Herbal medicine and treatment for Psoriasis	Lupin's venture into herbal based medicines
5.	Jayaashree Industries	Product- Mini Sanitary Napkin Making Machine	Muruganantham
6.	Aravind Eye Hospital	Service: Eye care	Dr. G. Venkataswamy
7.	KIDROP	Telemedicine: blindness prevention in premature babies	Dr. Anand Vinekar
8.	Forus Health -3nethra	Product: pre-screening ophthalmologist device	Chandrashekhar and Shyam Vasudev Rao
9.	Narayan Hruduyalaya	Service: Open heart surgery	Dr. Devi Shetty
10.	Novartis-Arogya Parivar	Service: Community health education	Novartis initiative on affordable healthcare and community education
11.	Vaatsalya	Service: hospital network to underserved communities	Dr. Ashwin Naik and Dr. Veerendra Hiremath
12.	Emergency Management and Research Institute (EMRI)	Service: Emergency Medical System	Raju Brothers from Satyam Computer Systems

Table 2: INDIAN HEALTHCARE INDUSTRY – CHALLENGES

1. Lowest Government Spending	2. Manpower shortage
3. Urban - Rural Penetration Disparity	4. Triple Burden of Diseases
5. Infrastructure Gaps	6. Poor health awareness
7. Out-of-pocket (OOP) expenditure	8. Language Barrier
9. Rising Population Burden	10. Impact on employment and income

1. Lowest Government Spending

- India's public healthcare expenditure is the least and has remained at 1.08 per cent of GDP through 2009 to 2013, compared to 5 per cent in China and 8.3 per cent in the United States. Global evidence on health spending shows that unless a country spends at least 5-6% of its GDP on health, basic healthcare needs are seldom met. The total public expenditure share between the centre and state (33:67) has been declining creating uneven access to health within

India. The burden on states has increased to 70 percent.
- Over 80 percent of heath expenditure in India is borne by private sector as against the developed countries where 80 percent is borne by the exchequer.

2. Urban - Rural Penetration Disparity
- Nearly 72% of the country's population lives in rural areas. The unequal geographic distribution of doctors and hospitals makes it difficult for low-income families to access quality medical facilities.
- Eighty percent of doctors, 75 percent of dispensaries, and 60 percent of hospitals are situated in urban areas – making quality health care virtually inaccessible to people who live in remote areas.

3. Infrastructure Gaps
- Subcenters (Scs)- 1, 53,655; Primary Health Centres (PHCs)- 25,308; Community Health Centres (CHCs)- 5,396; Sub-divisional Hospitals (SDHs)- 1022; Districts Hospitals (DH)- 763
- There is a shortfall of 33145 SCs (20%), 6556 PHCs (22%) and 2316 CHCs (32%) across the country as per the Rural Health Statistics (Ministry of Health and Family Welfare, 2016).

4. Out-of-pocket (OOP) expenditure is the share of expenses that patients pay to the healthcare provider, without a third party insurance or government-subsidised treatment.
- Despite liberalization of the insurance sector, only around 21.6 crore people - less than one-fifth of India's population - are covered under health insurance. Even among those who have some form of coverage, 67% are covered by public insurance companies (CBIH, 2015).
- The high Out-of-Pocket (OOP) medical expenditure at 80 percent has 60 percent of it spent on medicines both in Rural and Urban India
- According to the Ministry of Health and Family Welfare, 2015 report, the share of out-of-pocket expenditure on health care as a proportion of total household monthly per capita expenditure was 6.9% in rural areas and 5.5% in urban areas, in 2011-12.
- OOP increases with the cost of medicines, followed by that of hospitalisation accounting for the largest share of the household expenditure.

5. Burden of Rising Population
- With a population of 1.21 billion, India is the second most populous country in the world, next only to China. India's population between 2001 and 2011 has increased by 181 million people and is projected to have a population of 1.44 billion by 2025 according to the National Health Profile report (CBIH, 2015).

6. Manpower shortage
- Every government hospital serves an estimated 61,000 people in India, with one bed for every 1833 people (CBIH, 2015). In undivided Andhra Pradesh, every government hospital serves over 3 lakh patients while in Bihar, there is only one bed for every 8800 people.
- Every government allopathic doctor serves a population of over 11,000 people, with Bihar and Maharashtra having the worst ratios.
- India now has cumulatively 9.4 lakh allopathic doctors, 1.54 lakh dental surgeons, and 7.37 lakh AYUSH doctors of who more than half are Ayurvedic doctors. India's 400 medical colleges admit an estimated 47,000 students annually.
- There is an 83 percent shortage of specialist medical professionals in community health centres (CHCs), according to the Rural Health Statistics-2015, released by the Ministry of Health and Family Welfare.
- Despite government investments, India added only 2.07 doctors between 2007 and 2015 (NHP, 2015).
- The doctor patient ratio in rural areas of India is 1:20,000, while the urban ratio is 1:2,000 against the statutory 1:250 ratio from WHO for which India requires 6,00,000 doctors. (PWC, 2012) Even today, 70 percent of primary healthcare is provided by unqualified practitioners.

7. Triple Burden of Diseases
1. Unfinished agenda of communicable diseases
2. Emerging non communicable diseases related to life styles
3. Emerging infectious diseases.

8. Poor health awareness
- Lack of education and public health awareness in rural India
- Misguided and inadequate knowledge of personal health care, nutrition, healthy habits, vaccination, hygiene, and illness prevention

9. Language Barriers
- More than 22 languages is part of India and English is the predominant language used in Medical studies
- With rural citizens migrating to different states, the ability to convey health issues is challenging
- It causes problems in health outcome, comprehension, adherence, quality of care delivered and satisfaction

10. Impact on Employment and Income
- The high cost of healthcare prevents the poor from accessing it, leading to perennial health problems. The prolonged neglect causes loss in productivity, efficiency and earning.
- Wage loss means financial setback to the family, lifestyle changes and discontinuation of education to make a living.
- Nearly 39 million people fall below the poverty line each year due to health-related expenditures.

Growth Drivers:
1. Demographics Dividend:
- The median age of Indian population will be just 28 years by 2020 (The Hindu, 2015). The benefits are untapped as the average schooling is 4.4 years, women participation in jobs is low and unemployment rates are persistent. Healthcare sector can devise schemes to train and empower youth at low cost and curb unemployment. Training and employing women has helped in raising health standards of the community

2. Digital India
- In KPMG, April 2016 report on *The Indian Services Sector: Poised for Global Ascendency*, India is expected to lead IT in healthcare by 2019. The Indian Telemedicine will see a robust growth of 20 per cent and is expected to grow to USD 19 million in 2017 from USD 8 million recorded in 2012.

3. Emerging middle class and rising healthcare consumption:
- The government spending is low but the private players, rising middle class income and growing health awareness will drive growth; expected to reach US$ 280 billion by 2020 (India Brand Equity Foundation, 2017)

4. Health Finance Options
- The opportunities for public-private partnerships to drive growth.
- Growth in health insurance schemes designed for the poor

5. Growth in Medical Tourism:
- India's medical tourism market is expected to grow to USD 8 billion by 2020 (ET, 2015).
- India has become the new international medical value hub providing advanced tertiary care at fraction of the cost; it has surpassed the Asian competitors like Singapore and Thailand.

6. Frugal Culture:
- The culture to solve problems at low cost using traditional knowledge and available material.
- The constraints of scarce resources and institutional voids aids in discovering radical new solutions that are cheaper, appropriate and scalable.
- It involves actively reducing and reusing waste and rethinking the entire process of manufacturing and delivery apart from repurposing technology.

7. Entrepreneurship Environment
- The poor employment option and the need for frugal solutions drive the entrepreneurship appetite of the Indians.
- Recognition and laurels earned in innovation does not guarantee monetary success. The partnership with corporate houses that can utilise the innovation to market the product to the price sensitive segment can help scale the product to new boundaries.

8. Innovation crucibles
- Break the traditional rote based learning to problem solving learning; deviate from linear learning to random learning

• Setting up of innovation centres to award and guide new frugal entrepreneurs

CONCLUSION

From the in-depth analysis of the cases, the 10 P's of marketing frugal healthcare innovations were derived:

Table 3:

The 10– P Factor	Description
1. Practical Product	- Designed for rural conditions and poor man's psychographic profile. - rugged, portable, operates on alternative energy source, simple design, ease in handling and comprehension, reusable - Synergy using domain knowledge of engineering, Allopathy and AYUSH medicine - Lean manufacturing and Total Quality Management for continuous improvement - Empathy and health outcome at the core of value offering.
2. Paltry Pricing	Target pricing - 1 per cent of the nearest available quality option Differential pricing where rich patients subsidise poor patients EMI options, Reduce pack size for affordability Reduce fixed cost by increasing production/ doctor's efficiency and negotiating on bulk orders; rent or lease to other providers, pay per use agreements.
3. Proximity to Patients	Hub and spoke method of distribution, health camps, community outreach programs, local check-up centres, remote diagnosis,
4. Parsimonious Promotion	Leverage referral groups and community networks for speed and conversion, build trust and credibility through direct interaction, direct sales
5. People Power	Train and develop untapped idle manpower, women and family technicians for task shifting Build expertise of non-physicians in using logical algorithm or advanced software system to comprehend emergency cases Develop accreditation test for employment; immaterial of formal education.
6. Packed Process	An assembly line model for maximum case handling by limited experts Build work flow efficiency Encourage local manufacturing, borrow and integrate materials from other industries to reduce cost, increase effectiveness and improve outcome
7. Penetrating Presence	Leverage growth and penetration of digital media to share reports, use local language in digital health records, teleconferences, messages/videos on health awareness, ensure medical compliance and first aid remedies among others.
8. Public-Private Partnerships	Strengthen market position through partnerships in government initiatives and plans, Public funding, NGO's, non competing corporate houses, community systems; government micro insurance plans
9. Pioneer's Passion	Ongoing, unabated commitment to the pioneer's values to serve the poor throughout the organisation, a code of service unchanged by success or the passage of time
10. Pan International	Share the perfected product and system with international markets, operate international training and consulting unit

The need for frugal healthcare will spur the innovation culture to overcome the challenges. The reliability and functionality of health care products originating from low-cost mindset will change the world healthcare delivery system. In order to make the most from the prevailing necessity for sustainable and scalable solutions, the ten P's have been recommended.

The above 10 P's of frugal healthcare marketing will help entrepreneurs use a simple heuristic framework to design their solutions for the poor.

REFERENCES

1. CBIH. (2015). National Health Profile. Retrieved January 15, 2017, from Central Bureau of Health Intelligence: http://www.cbhidghs.nic.in/writereaddata/mainlinkFile/NHP-2015.pdf
2. ET. (2015, November 1). Indian medical tourism industry to touch $8 billion by 2020: Grant Thornton . Retrieved January 10, 2017, from Economic Times: http://economictimes.indiatimes.com/industry/healthcare/biotech/healthcare/indian-medical-tourism-industry-to-touch-8-billion-by-2020-grant-thornton/articleshow/49615898.cms
3. India Brand Equity Foundation. (2017, January). Health Industry in India. Retrieved January 2017, from IBEF: http://www.ibef.org/industry/healthcare-india.aspx
4. Indian Brand Equity Foundation . (2017, January). IBEF. Retrieved January 25, 2017, from Indian Brand Equity Foundation : http://www.ibef.org/industry/healthcare-presentation
5. KPMG. (2016, April). The Indian Services Sector: Poised for Global Ascendency. Retrieved January 2017, from KPMG Digital India: https://assets.kpmg.com/content/dam/kpmg/pdf/2016/04/The-Indian-services-sector-Poised-for-global-ascendancy.pdf
6. Ministry of Health and Family Welfare. (2016, August 5). National Health Mission. Retrieved January 10, 2017, from http://nrhm.gov.in/nrhm-components/health-systems-strengthening/infrastructure.html
7. Ministry of Health and Family Welfare. (2015). National Health Policy. Retrieved January 12, 2017, from http://www.mohfw.nic.in/showfile.php?lid=3014
8. PWC & CII. (2015, December). The Healthcare Agenda. Retrieved December 21, 2016, from Confederation of Indian Industry: https://www.pwc.in/assets/pdfs/publications/2015/the-healthcare-agenda.pdf
9. The Hindu. (2015, November 14). India Must Make the Most of Demographic Dividend. Retrieved January 20, 2017, from The Hindu: http://www.thehindu.com/news/cities/chennai/india-must-make-the-most-of-demographic-advantage/article7875042.ece