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SUSTAINABILITY ISSUES IN SMALL AND MEDIUM ENTERPRISE HOSPITALS OF INDIA

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ABSTRACT

The Indian health care sector is paving way towards prospective growth in the next decade. Indian health care sector is growing at the rapid speed as that if Indian population. The growing population demands not only the more food, clothing and shelter but also healthcare and health insurance. According to the report by the planning committee of India (Planning Commission, GOI, 2012-2017). The size of Indian health care is expected to touch US\$ 180 billion by 2020 proving to be one of the largest sectors both in terms of revenue and employment. In view of the huge population of India and the ever growing need for health care measures the Indians are expected to spend US\$ 89 per person by the end of 2015. Hospitals uses vast amount of resources and even impact negatively on our environmental health. Hospitals should utilize innovations, technologies & increased understandings of community and healthier environment. Hospitals are the icons of healing, life, & hope. In view of huge demand for the hospitals and keeping environmental health in mind our study reviews and highlights the possibilities for sustainability in small and medium enterprise hospitals of India.

KEYWORDS :Sustainability, Hospitals, Healthcare, Sustainable development, Environmental pollution.

INTRODUCTION

Indian health care sector is growing at the rapid speed as that if Indian population. The growing population demands not only the more food, clothing and shelter but also healthcare and health insurance. Since India is largely a



rural and semi urban composed state, has been witnessing shortage of quality health care units i.e Hospitals. The Indian health sector system includes public and private hospitals as well as specialised traditional Indian system of treatment namely Ayurvedic, Unani and Homeopathy. This healthcare sector in the country is subjected to two kinds of risk one is financial and operation feasibility and other is sustainability.

SUSTAINABILITY:

“Sustainability” is defined differently by different people. Few well know definitions are listed below:

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. (It aims at assuring the on-going productivity of exploitable natural resources and conserving all

species of fauna and flora.) --Brundtland Commission (United Nations), 1987.

Sustainability is a vision for the world in which current and future humans are reasonably healthy; communities and nations are secure, peaceful and thriving; there is economic opportunity for all; and the integrity of the life-supporting biosphere is restored and sustained at a level necessary to make these goals possible. All four dimensions of sustainability must be addressed to achieve this vision. --Anthony D. Cortese and Debra Rowe, "Higher Education and Sustainability Overview".

Sustainability is "a process that helps create a vibrant economy and a high quality of life, while respecting the need to sustain natural resources and protect the environment. It expresses the principle that future generations should live in a world that the present generation has enjoyed but not diminished." --Clough, G. Wayne, Jean-Lou Chameau, and Carol Carmichael. "Sustainability and the University" The Presidency, winter 2006.

In the article "Understanding and linking Sustainability for healthcare Richard W. Smith, Sustainability is best understood as actions designed to drive triple-bottom-line results around economic prosperity, environmental stewardship and social responsibility.

Sustainability relating to the healthcare sector it's the managing to the triple bottom line, their actions and offerings should not only focus on economic results but also have to put efforts to embrace environmental, social and economic practice that benefit employees, patients, the community and the society in large.

REVIEW OF LITERATURE:

Sustainability is best understood as actions designed to drive triple-bottom-line results around economic prosperity, environmental stewardship and social responsibility (Richard W. Smith). Sustainability and sustainable development these two terms can be differentiated as sustainability is the destination while sustainable development is the path we need to take to get there.

Healthy life is an outcome of sustainable development, as well as a powerful and undervalued means of achieving it. We need to see health both as a precious asset in itself and as a mean to stimulating economic growth and reducing poverty (Brundtland 2002). We can see opportunity of sustainable development in the hospitals, since hospitals impact more on economic, social and environment, which will affect the health of society.

The long term side effects of hospitals can be avoided by expanding quality and sustainability ((Ulli Weisz 2011). Hospitals create health hazard for the staff, patients and community it also effects the economies and quality of life (dr. Sushma,2013) (Banafeheh Behzad,2011). Healthcare sector facing cost burden, hospitals are finding difficult reduce cost. They are focusing in managing the procurement to reduce the cost burden (Samayadip,2014).

Sustainable management helps hospitals to improve their total quality management (sawik Ghosh,2013). Health care sector has serious challenges in competitiveness. The element for sustainable competitive advantage of hospitals supply chain has not been well examined. Supply chain competitiveness is the real solution for the problems faced by health care sector in global scenario (Debashri Dey,2013) Sustainable supply chain and health care sustainable performance can be seen in four dimensions environment information, communication technology, cultural change and risk management (Aqvar Noor, 2014).

Hospitals are the icons of healing, life and hope. They are the important buildings for any community "the way we design, construct and operate these buildings has a profound impact on our health and the health of the environment" (Guenthr, 2008).

Hospitals uses vast number of resources and even impact negatively on our environmental

health. Possibilities for a sustainability focused hospitals are energy, waste, transportation, digital management and human dimensions (Brenton Burger & Peter Newman)

This trend reports an urgency for the academic research to look into various facts of Indian health care to identify the prevailing issues and to find sustainable solutions which will in turn cater to the significant development and growth of the sector. Hence in the future paras the author has attempted to disintegrate the Indian health care sector from various purviews.

Table no.1. List of Few Hospitals in India with Green Initiative

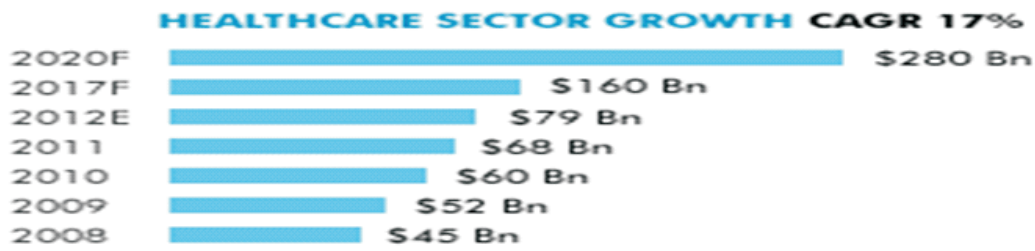
Hospitals	Initiatives
Apollo Hospital, Chennai	Green waste
B M Birla Heart Research	Green Initiative
B P Poddar Hospita& Medical Centre	Green Initiative
Bombay Hospital & Medical Research Centre	Green Campus Initiative
Breach Candy Hospital, Mumbai	Green Initiative
CIMS Hospitals	Green Building
Columbia Asia, Bengaluru	International Standard of medical, nursing & Operation protocol
Calcutta Medical Research Institute	Green Initiative
Fortis Hospital, New Delhi	Green Building Certificate & Green Rating Certificate
Global Hospital Bangalore	NABH, NABL, HALAL certified
Kothari Medical Centre	Green Initiative
Nova Speciality Hospital, Mumbai	Out patients Care Model for Sustainability
Ruby Hall Clinics	Green Initiative
West Bank Hospitals	Green Initiative
Woodlands Multispecialty Hospitals Ltd	Green Initiative

*Sources: Association of Hospitals of Eastern India, New India Assurance Limited

INDIAN HOSPITAL INDUSTRY:

Hospitals are the icons of healing, life & hope “The way we design, construct and operate these buildings has a profound impact on our health & the health of environment”(Guenther ittori,2008/Hospitals & Sustainability, Brenton Burger) therefore it is important for our healthcare system and even the buildings should be operated with our environmental health in mind. But still we are not attempting to build sustainability which is negatively impacting on our environmental health. The Indian health care sector (HCS) is paving way towards prospective growth in the next decade.According to the report by the planning committee of India (Planning Commission, GOI, 2012-2017).The size of Indian health care is expected to touch US\$ 160 billion by 2017 and further growth by US\$ 180 billion by 2020 proving to be one of the largest sectors both in terms of revenue and employment.

Large investments in the next decade from big players like Fortis, Appolo hospitals etc... are likely to contribute to the development of this sector.



In view of the huge population of India and the ever growing need for health care measures the Indians are expected to spend US\$ 89 per person by the end of 2015.

Also per capita health care expenditure in India is estimated to grow at compound annual growth rate CAGR of 15.4% by 2015.

NATURE AND SCOPE OF INDIAN HOSPITALS:

The Indian health care sector is considered as thrust areas. The Indian health sector system includes public and private hospitals as well as specialised traditional Indian system of treatment namely Ayurvedic, Unani and Homeopathy. The govt. aided health care sector provides basic health care as these systems often lack adequate infrastructure in terms of equipment’s, expertise and the do. Therefore this has led to the health care sector migrating to the services of private hospitals and clinics, because these offer high standard of health care, well equipped with highly qualified doctors and modern infrastructure with reasonable cost.

Big hospitals with hundreds of beds and parking lots are not the only ones in this sector. Midsize entities and small hospitals are increasingly mushrooming across the cities, Suburbs, urban and semi urban cities and also satellite towns. The reason for the existence is that they are more or often conveniently located and in view of the growing real estate prices.

According to Dr.Vivek Desai of (HOSMAC) hospital and consultancy: Small and medium scale hospitals (Hence forth SME hospitals) represents 70% of health care needs in the country and rest 30% accounts for mega hospitals. These hospitals cater to the needs such as Eye care to Laparoscopic surgery to arthopediac procedures, with less than 50 beds and upto 200 beds representing this sector.

According to Quality Council of India:

Category
Small Hospital (up to 50 Beds)
Medium Hospital (50 – 200 Beds)
Big Hospital (above 200 Beds)

With such a huge presence it becomes important for all these hospitals to induce sustainability measures in their operations. Because it is increasingly clear that climate change is not only a phenomenon but e reality which is threatening to the very existence of the mankind on the earth.

This study is done at a moment where the health care sector is on a boom which will create a series of social and economic benefits but this study argues that health sector can play a pivotal role in mitigating the consequences of climate change.

According to a report of IBEF, Aug, 2013 (Indian Brand Equity Foundation) it is clearly evident that large hospitals like Apollo, Fortis have become the top hospitals chain because of constant quality improvement and maintaining the same.

According to WHO, 63% of the global mortality in 2008 was from non-communicable diseases in the hospitals which clearly state the need of a better health care. Not only quality but also products used by hospitals have an impact over the sustainability.

According to the report by Jhonson&Jhonson many hospitals in countries like Brazil, Germany, United States have switched their suppliers for more sustainable options because hospitals are energy and resource intensive enterprise which contribute sustainability to climate change while inadvertently contributing to respiratory and other illness.

Healthcare seekers depend highly on the corporate hospital, since they provide a wider variety of services and are considerably more efficient. Thus, with the corporate hospitals becoming more prominent in the Indian market, it becomes even more imperative that India continues to ride this wave and makes more collaboration to bring the people of India a truly global healthcare delivery system at affordable price.

Status of Indian Health care facilities and number of Beds

Table. 2. Showing the status of Health care facilities and number of hospitals

Year	HCF's	Beds
2008	95273	1418984
2009	129511	1368839
2010	137746	1420563
2011	151535	1491147
2012	159838	1612600
2013	168869	1713742
2014	169913	1786108

*Source : CENTRAL POLLUTION CONTROL BOARD (Hazardous Waste Management Division), New Delhi, Annual report (2008,2009,2010,2011,2012,2013,2014)

Table. No. 3. showing the % growth rate of Health care facilities and number of beds

Year	% Growth rate HCF's	% Growth Rate of Beds
2008	0	0
2009	35.93672919	-3.533866485
2010	6.358533252	3.778676674
2011	10.01045402	4.968734227
2012	5.479262217	8.144938091
2013	5.650095722	6.271983133
2014	0.6182307	4.222689296

Chart No. 1. Shows Percentage Growth rate Health Care Facilities

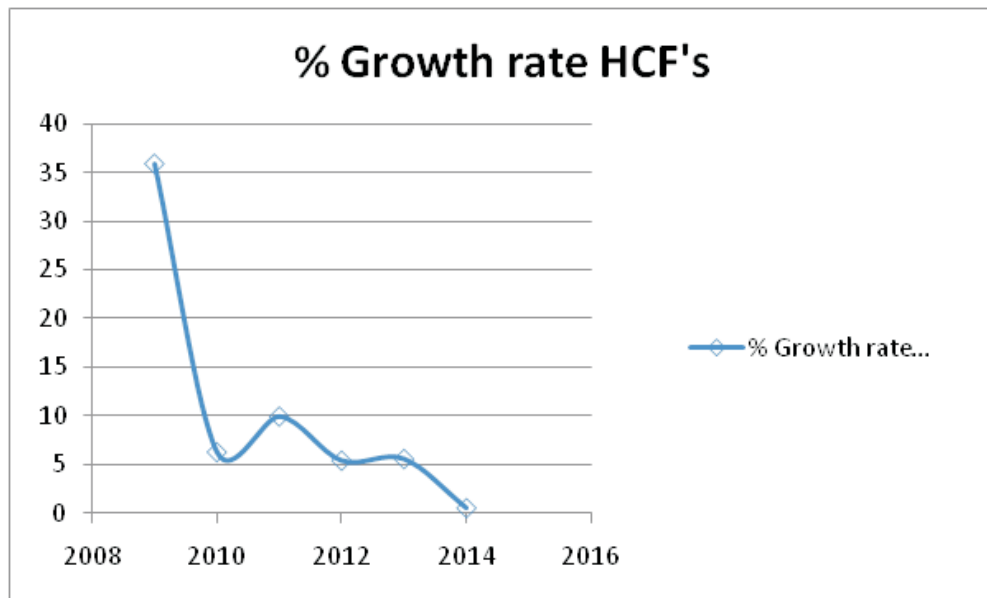
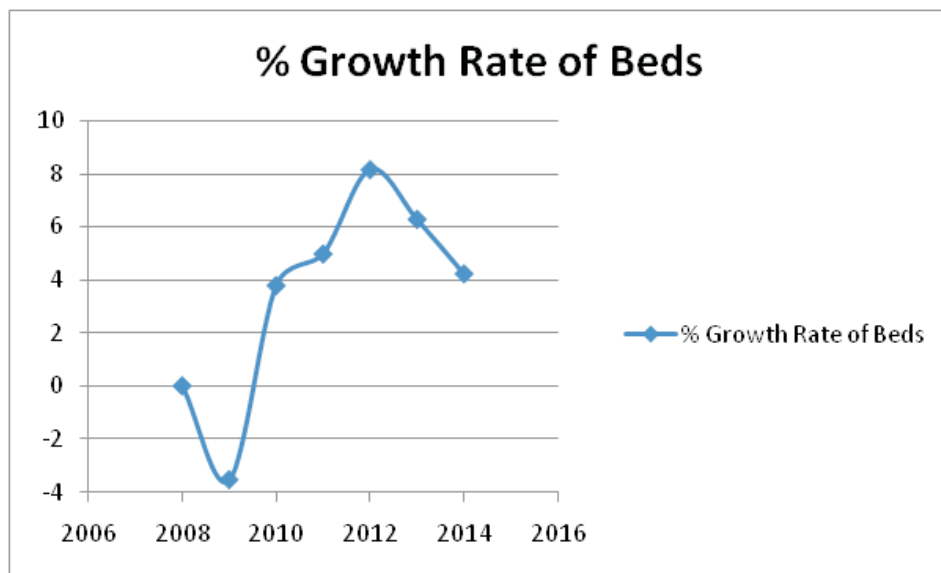


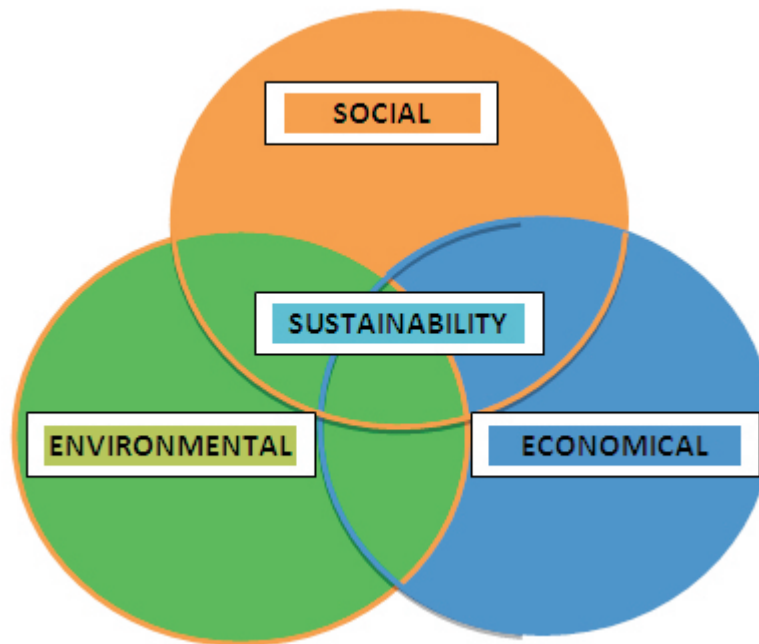
Chart No. 2. Shows Percentage Growth rate of Beds



Sustainability in small and medium hospitals of INDIA:

Sustainability is best understood as actions designed to drive triple-bottom-line results around economic prosperity, environmental stewardship and social responsibility.(Richard W. Smith)

Sustainability relating to the healthcare sector it's the managing to the triple bottom line, their actions and offerings should not only focus on economic results but also have to put efforts to embrace environmental, social and economic practice that benefit employees, patients, the community and the society in large.



Better management strongly correlate to better hospital. Procurement, Energy usage, transportation, & waste management are some of the sustainability issues in hospitals.

Procurement: In the present growing population the rate of people falling sick has increased which has resulted in the rapid increase of hospital need. Hospitals should adopt the sustainability procurement in order to reduce cost, environmental friendly and for more quality goods. The procurement of the materials and products has an enormous effect on whether hospitals can minimize the cost and the effect on environment. Purchasing should be made with the environment in mind through environmentally preferable purchasing (EPP) – the process of purchasing products and services that have reduced impact on human health and the environment when compared with comparable alternatives.

Energy Usage: Hospitals uses more of resource to treat the patients. Hospitals should responsibly use the resources to ensure economical, environmental friendly and social. Electricity, water, air, gases, and chemicals are extensively used by the hospitals which are the main needs to treat the patients, sustainable usage of the energy will reduce the cost and ensures effective utilization of resource.

Hospitals use vast amount of energy as they operate 24 hours a day and all the year. Hospitals can address the energy usage in two ways either increase the efficiency of the facility by consuming less energy or supplement their primary consumption and back up energy generation with viable alternatives. Maximizing the amount of natural daylight helps reduce the amount of electricity used by the hospitals. This saves the energy costs and natural light benefits healing environment and welcoming atmosphere to work. Sunlight in healthcare facilities is associated with substantial reduction in medical cost (Heerwagen, 2007).

Hospitals use vast amount of water reason for this is the organisations thinks as usage of water is the most cost saving. This is the barrier for adopting better water practice by the hospitals. In concerning water as the valuable natural resource the hospitals should adopt the water conservation strategies to preserve the natural resource.

Infrastructure: Hospitals building, wards, beds, clothes, equipments and toilets everything should be

maintained clean and green. Patients, workers, doctors and visitors will be having the high risk of diseases.

Hospitals in its design need to ensure to reduce and influence its environmental impact if the building structure. In the stage of construction all materials and operations should be considered environmental friendly. Hospitals should be constructed in view of using the natural sunlight in the day time, natural ventilation should be adopted to maintain the quality of natural air inside the hospital as well as to maintain the temperature. Wind energy and solar energy should be used as the main energy source for the hospitals.

Hospitals are a transportation- intensive industry as hospitals is increasingly related to gain the need for people to reach the hospitals. For the hospitals it is important to note that how transport infrastructure has as much to do with the location of the hospital in relation to public transport infrastructure as overcoming traditional hospital transportation issues.

Waste Management: "Waste is the measure of inefficiency" Many large hospitals around the globe with environmentally focused waste management strategies attempt to implement the three R's Reduce, Reuse and Recycle in effort to minimize their waste and improve their efficiency. The ability of a hospital to implement this strategy depends on several factors namely: facilities, participation of staff, procurement policies of the hospital's administration.

Hospitals should be designed in order to help the staff and patients to dispose the waste in organised way, staff should be trained to handle the waste in better way to segregate the infectious and non-infectious wastes. According to the policies of the government hospitals should follow the policies to dispose the waste produced by the hospitals. It's the misperception that clinical waste is hazardous and thus, opportunities for attempting the recycling and reuse aspects, according to Terry Grogan of the US Environmental Protection Agency's Office of Solid waste, point out only about 15% of the waste created by hospitals are hazardous, remaining 85% can be recycled. Hospitals should also adopt appropriate waste handling facilities and space to sort, transport, compact and store waste for recycling.

CONCLUSION:

This review call for an urgency for the Indian health care sector which is considered as a thrust area to induce sustainability measures in their social, environmental and economical operations. With such a huge presence it becomes important for all these hospitals to induce sustainability measures in their operations. Because it is increasingly clear that climate change is not only a phenomenon but a reality which is threatening to the very existence of the mankind on the earth.

Healthcare seekers depend highly on the corporate hospital, since they provide a wider variety of services and are considerably more efficient. Thus, with the corporate hospitals becoming more prominent in the Indian market, it becomes even more imperative that India continues to ride this wave and makes more collaboration to bring the people of India a truly global healthcare delivery system at affordable prices.

Procurement, Energy usage, transportation, & waste management are some of the sustainability issues in hospitals.

In view of huge demand for the hospitals and keeping environmental health in mind our study reviews and highlights the possibilities for sustainability in small and medium enterprise hospitals of India.

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