



# MET MANAGEMENT RETROSPECT

... A Refereed Biannual Management Research Journal

Sr.No	Contents
<b>01</b>	<b>A Study on Evolution of Green Marketing in India</b> Mr. Laxmikant C. Sontakke
<b>02</b>	<b>Marketing at the Bottom of Pyramid</b> Prof. Sachin Patole
<b>03</b>	<b>Green Marketing – Opportunities &amp; Challenges</b> Dr. Y. M. Gosavi
<b>04</b>	<b>Corporate Social Responsibility- Study of trend in Expenditure of CSR</b> Prof. Abhinay Nirmal, Dr. Nilesh Berad
<b>05</b>	<b>Relating Service Quality and Patient Satisfaction at Multispecialty Hospitals</b> Prof. Vaibhav Ramesh Bhalerao, Dr. Anand Deshmukh
<b>06</b>	<b>A Study on “Hospital Management Information System (HMIS)” with special reference to Gujarat model of managing hospital information</b> Mr. Nitin S Bhand, Dr. Avinash Ganbote

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## Our Faith

न चौर हार्यम् नच राज हार्यम् ।  
न भातृभाज्यम् नच भारकरी ॥  
व्यये कृते वर्धते एव नित्यम् ।  
विद्याधनं सर्वधन प्रधानम् ॥

Knowledge can neither be stolen by a thief,  
nor snatched by king.  
It is indivisible unlike ancestral property,  
It never burdens the bearer,  
It multiplies manifold when offered to others.  
Knowledge is the supreme form of wealth.

विद्ये विना मती गेली, मती विना नीती गेली,  
नीती विना गती गेली, गती विना वित्त खचले,  
इतके अनर्थ एका अविद्येने केले  
- महात्मा ज्योतिराव फुले

Lack of knowledge leads to indiscretion;  
Indiscretion leads to lack of ethics  
Lack of ethics leads to absence of direction and momentum;  
Absence of direction and momentum results in bankruptcy;  
Such is the HAVOC caused by the lack of knowledge.  
- Mahatma Jyotiba Phule

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The editors and editorial board with great pleasure place before the readers the new issue of MET Management Retrospect, a refereed bi-annual management research journal. The research contributions by the scholars have made the journal enrich. The journal has diversified areas covered under its ambit giving maximum option for the research scholars. We thank all the authors and editors for their contribution.

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**INDEX**

Sr.No	Contents	Page No
01	<b>A Study on Evolution of Green Marketing in India</b> Mr. Laxmikant C. Sontakke	01-06
02	<b>Marketing at the Bottom of Pyramid</b> Prof. Sachin Patole	07-21
03	<b>Green Marketing – Opportunities &amp; Challenges</b> Dr. Y. M. Gosavi	22-32
04	<b>Corporate Social Responsibility- Study of trend in Expenditure of CSR</b> Prof. Abhinay Nirmal , Dr. Nilesh Berad	33-40
05	<b>Relating Service Quality and Patient Satisfaction at Multispecialty Hospitals</b> Prof. Vaibhav Ramesh Bhalerao , Dr. Anand Deshmukh	41-57
06	<b>A Study on “Hospital Management Information System (HMIS)” with special reference to Gujarat model of managing hospital information</b> Mr. Nitin S Bhand, Dr. Avinash Ganbote	58-69

## A Study on Evolution of Green Marketing in India

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### Abstract

In this concept of green marketing I have discussed the concept of green marketing in a detail. I have identified what is the actual need and importance of green marketing. Green marketing it's all about relates to ethics but generally marketers don't talk about ethics too much. Marketers can often drive human desires and behaviors, getting people to buy things that they may or may not need, making them feel better or worse about them in the process. The concept of green marketing has been started in early first Earth Day in 1970. But the idea did not catch on until the 1980s, when the public are aware and taking interest in the environment led to a demand for more green products and services. Manufacturers responded to public interest by labeling hundreds of new products "environmentally friendly"—making claims that products were compostable, energy efficient, or the like. In spite of its growing popularity, the green marketing movement faced serious setbacks in the late 1980s because many industries made false claims about their products and services. A common mantra in green marketing is that if we want the masses to buy our product, we want to focus on messaging more traditional attributes such as price, quality or service. A product's of green marketing that is competitive on dimensions both traditional and eco-friendly. This would result in the greatest number of products sold and greatest impact on the environment. As such, the green product paradox presents quite the challenge for a marketer. For individual companies, such products can be both profitable and socially responsible. It is only by looking at the forest from the trees and perhaps a little into the future does it become apparent that, in aggregate, such products may, paradoxically, have a negative impact. This paper is being focused on the Green marketing environment and its growing marketing potentiality.

**Keywords:** - Green Environment, Green Marketing, Eco-friendly etc.

## **Introduction**

Now a day's Green marketing play a vital role which has developed in today's modern market. Green marketing is a way to use the environmental benefits of a product or service to promote sales. Many consumers will relate to directly and indirectly to protect and save the environment and more focus on use the eco-friendly products. Even they cost more.

"Green Marketing" refers to holistic marketing concept wherein the production, marketing, consumption and disposal of products and services happen in a manner that is less detrimental to the environment with growing awareness about the implications of global warming, non biodegradable solid waste, harmful impact of pollutants etc., both marketers and consumers are becoming increasingly sensitive to the need for switch in to green products and services. According to the American Marketing Association, green marketing is the marketing of products that are presumed to be environmentally safe. Thus green marketing incorporates a broad range of activities, including product modification, changes to the production process, packaging changes, as well as modifying advertising.

## **Evolution of Green Marketing**

The green marketing has evolved over a period of time. According to Peattie (2001), the evolution of green marketing has three phases. First phase was termed as "**Ecological**" green marketing, and during this period all marketing activities were concerned to help environment problems and provide remedies for environmental problems. Second phase was "**Environmental**" green marketing and the focus shifted on clean technology that involved designing of innovative new products, which take care of pollution and waste issues. Third phase was "**Sustainable**" green marketing. It came into prominence in the late 1990s and early 2000.

**WHY GREEN MARKETING?** As resources are limited and human wants are unlimited, it is important for the marketers to utilize the resources efficiently without waste as well as to achieve the organization's objective. So green marketing is inevitable. There is growing interest among the consumers all over the world regarding protection of environment. Worldwide evidence indicates people are concerned about the environment and are

changing their behavior. As a result of this, green marketing has emerged which speaks for growing market for sustainable and socially responsible products and services.

**ADVANTAGES OF GREEN MARKETING:** Companies that develop new and improved products and services with environment inputs in mind give themselves access to new markets, increase their profit sustainability. They enjoy a competitive advantage over the companies which are not concerned for the environment.

**ADOPTION OF GREEN MARKETING** There are basically five reasons for which a marketer should go for the adoption of green marketing. They are -

- Opportunities or competitive advantage
- Corporate social responsibilities (CSR)
- Government pressure
- Competitive pressure
- Cost or profit issues

**GREEN MARKETING MIX:** Every company has its own favorite marketing mix. Some have 4 P's and some have 7 P's of marketing mix. The 4 P's of green marketing are that of a conventional marketing but the challenge before marketers is to use 4 P's in an innovative manner.

➤ **Product**

The ecological objectives in planning products are to reduce resource consumption and pollution and to increase conservation of scarce resources (Keller man, 1978).

➤ **Price**

Price is a critical and important factor of green marketing mix. Most consumers will be prepared to pay an additional value if there is a perception of extra product value. This value may be due to improved performance, function, design, visual appeal, or taste. Green marketing should take all these facts into consideration while charging a premium price.

➤ **Promotion**

There are three types of green advertising: -

- Ads that address a relationship between a product service and the bio-physical environment.
- Those that promote a green lifestyle by highlighting a product or service.
- Ads that present a corporate image of environmental responsibility.
- **Place**

The choice of where and when to make a product available will have a significant impact on the customers. Very few customers will go out of their way to buy green products.

- **Strategies**

The marketing strategies for green marketing include: -

- Marketing Audit (including internal and external situation analysis)
- Develop a marketing plan outlining strategies with regard to 4 P's
- Implementing marketing strategies
- Planning result evaluation

### **Challenges Ahead**

- Green products require renewable and recyclable material, which is costly
- Requires a technology, which needs huge investment in R & D
- Water treatment technology, which is too costly
- Majority of the people are not aware of green products and their uses
- Majority of the consumers are not willing to pay a premium for green products

**THE FUTURE OF GREEN MARKETING:** There are many lessons to be learned to avoid green marketing myopia, the short version of all this is that green marketing requires applying good marketing principles to make green products desirable for consumers. Business scholars have viewed it as a “fringe topic”, given that environmentalism's acceptance of limits and conservation does not mesh well with marketing's traditional axioms as the marketer can. Evidence indicates that successful green products have avoided green marketing myopia by following the important principles

- Consumer value position
- Calibration of consumer knowledge
- Credibility of Product Claim



**GREEN PRODUCTS** Green products are that that have less of an impact on the environment or are less detrimental to human health's that are traditional equivalents. Green products might, typically be formed or partly-formed from recycled components, be manufactured in a more energy-conservative way, or be supplied to the market with less packaging or all the three.

**GETTING GREEN PRODUCT PARADOX** A common mantra in green marketing is that if buyer wants the masses to buy the product, focus the marketer's message on more traditional attributes such as price, quality or service. A product's "greenness" is likely secondary for many mainstream consumers. For green marketers then, the Holy Grail may be to offer a product that is competitive on dimensions that are both traditional and eco-friendly. This would result in the greatest number of products sold and greatest impact on the environment. As such, the green product paradox presents quite the challenge for a marketer. For individual companies, such products can be both profitable and socially responsible. It is only by looking at the forest from the trees and perhaps a little into the future does it become apparent that, in aggregate, such products may paradoxically have a negative impact. A sustainable brand might try itself to mitigate any impact that its products may have. But, this will only have broad impact if it ultimately compels competitors to follow suit. Given this, marketers should recognize that a solution to the paradox may not lie within an individual company's grasp. Alternatively, it may take an industry consortium to make the necessary product changes or evolve consumer. Overall, the green product paradox presents a difficult challenge for green marketers. Doing well for the planet may not always be as a simple as motivating purchase of greener goods. In some cases, it just might be too much of a good thing.

**Examples of environmentally-beneficial products and services**

- Paper containing post-consumer wastepaper
- Cereals sold without excess packaging
- Shade-grown coffee beans
- Cleaning supplies that do not harm humans or environment
- Wood harvested from sustainable forests
- Energy-efficient light bulbs

- Energy-efficient cars
- Energy from renewable sources of energy such as windmills and solar power

### **Conclusion**

Green marketing its self very important aspect of marketing. Marketers need to understand the implications of green marketing. If Marketers think that customers are not concerned about environmental issues or will not pay a premium for products that are more eco-responsible, think again. Marketers must find an opportunity to enhance the product's performance and strengthen the customer's loyalty and command a higher price. Green marketing is still in its infancy and a lot of research is to be done on green marketing to fully explore its potential.

### **Books**

- Ottoman, Jacquelyn, and Miller, Edmond Shoaled. (1999). *Green Marketing Opportunities for Innovation*. New York: McGraw-Hill.
- Chopra, S. Lakshmi (2007), "Turning Over a New Leaf", Indian Management, Vol-64, April-2007
- Ottman, J.A. et al, "Avoiding Green Marketing Myopia", Environment, Vol-48, June-2006

### **Websites**

- [www.greenmarketing.net/stratergetic.html](http://www.greenmarketing.net/stratergetic.html)
- [www.epa.qld.gov.au/sustainable\\_industries](http://www.epa.qld.gov.au/sustainable_industries)

## Marketing at the Bottom of Pyramid

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### Abstract

It has been estimated that about 2,582 million world Population has been living for below than \$2/ day. This group forms the bottom of the economic pyramid (BOP). This market for this group is huge and diverse that several corporations around the globe have been trying to make their presence within this market through their marketing offerings (Kacou, 2010). Even though the purchasing of BOP consumers is seemed to be low in relation to the Western market but the potential of this market is appeared to be very attractive to the Multinational Corporations (MNCs) around the world (Tybout & Calder, 2010). As an outcomes, MNCs are trying to untapped the potential offered by this market through the implication of innovative marketing strategies (Peter , 2013). Prahalad (2009) contends that the distinctive aspect about BOP logic is to generate and not to do it for charity purposes (Prahalad, 2009). While, Karnani (2011) came up three severe conditions to BOP logic. It has been observed, there are very few MNCs that meet all the three conditions outlined by Karnani (2011) in regard to the development and selling of product offerings in the BOP market.

It has been intended the relationships between marketing mix elements (product, price, placement and promotion) and certain BOP marketing challenges or four A's (awareness, availability, accessibility and affordability) would provide broad marketing framework and should needs to be explored. It has been determined that the understanding in regard to BOP market and the suitable marketing strategies still not much braod as it should have to be. This theory into practice would emphasise on the four A's and would also come up with a theoretical framework for marketing products to BOP segment which could also support to meet three main conditions of BOP logic which has been articulated by Karnani (2011). All this would be accomplished through the certain case studies MNCs that have been operating successfully in BOP market.

**Keywords:** Bottom of pyramid concept, marketing strategy for bottom of pyramid, Bottom of pyramid Issues and opportunity, Case study

### 1.1 Introduction of the Topic

The concept of bottom of the pyramid (BoP) first introduced by Prahalad (2004) led to an important stream of research in business circles (Rosa & Vishwanathan, 2007) giving rise to academic literature in areas such as strategy, organizational theory entrepreneurship, microfinance, and marketing. Within each of these areas, BoP research essentially attempts to identify conditions for success, limitations, and motivations of companies (including multinational corporations, or MNCs) to engage in BoP strategies. The diffusion of the BoP concept among business executives also encourages companies to better understand and respond to subsistence Marketplaces and to focus on the 4 billion poorest individuals of the planet, now considered potential consumers. The basic idea is very simple. If a company offers products at extremely low prices and manages very low costs, margins may be low but adequate, and selling enormous quantities of the products will generate decent profits. Unilever successfully applied this model by selling Wheel brand detergent to low-income consumers in India. Simanis (2012) argues, however, that because of the high penetration rate that it requires, this strategy far from guarantees success, and cites failures experienced by large multinational companies such as Procter & Gamble and DuPont. BoP markets are attractive, given the size of the population in developing countries (for example, 163 million inhabitants in Bangladesh and more than 75 million in the Democratic Republic of Congo) and the high percentage of this population living below the poverty line (about 30 to 70 percent). Moreover, real growth rates in these countries are mostly between 5 percent and 10 percent per year, contrasting with growth rates close to zero in developed countries. From a managerial perspective, companies—multinational companies in particular—contend that they are developing and implementing BoP strategies. For example, Procter & Gamble, Unilever, Nestlé, and Cemex implement BoP programs including the development of specific products targeted at BoP consumers around the world. Bottom of the Pyramid (BOP) market is considered as challenging one for the companies seeking for profit generation. Traditionally, this market is categorized as a domain for non-profits organisations, NGOs and governments. Most companies have preferred to leave these consumer segments for the above previous mentioned groups and concerned only on targeting middle and upper classes.

Traditionally, the poor have not been considered an important market segment. “The poor can’t afford most products”; “they will not accept new technologies”; and “except for the most basic products, they have little or no use for most products sold to higher income market segments”—these are some of the assumptions that have, until recently, caused most multinational firms to pay little or no attention to those at the bottom of the pyramid. Typical market analysis is limited to urban areas, thereby ignoring rural villages where, in markets like India, the majority of the population lives. However, as major markets become more competitive and in some cases saturated—with the resulting ever-thinning profit margins—marketing to the bottom of the pyramid may have real potential and be worthy of exploration.

Designing products for the BOP is not about making cheap stuff but about making technologically advanced products affordable. For example, one company was inspired to invent the Freeplay, a windup self-power-generating radio, when it learned that isolated, impoverished people in South Africa were not getting information about AIDS because they had no electricity for radios and could not afford replac

### **1.2 Research Objectives**

1. To know the concept of Bottom of pyramid
2. To know the Marketing strategy used by various company for BOP customers.

### **1.3 Objectives of the study**

- To learn about the concept of BOP and its potential.
- To know the marketing strategy for BOP customers
- To know the various opportunities for business For BOP
- To know corporate example of BOP in India

### **1.4 Limitation of the study**

The research was made according to the available information.

### **1.5 Research Design**

“Research design is the logical and systematic planning and directing of research.” Research design is useful for solve the critical problem of the company. Preparing a research design is an important stage in the process of conducting research. Systematic work on the research project and conduction of various operations methodically could be facilities by a research design.

Research design is nothing but a scheme of the work to be undertaken by a researcher at various operations. Research design is nothing but a working plan by a researcher before actually starting his research work.

### **1.6 Type of research**

#### **Descriptive Research-**

Descriptive research is used to describe characteristics of a [Population](#) or Phenomenon being studied. It does not answer questions about how/when/why the characteristics occurred. Rather it addresses the "what" question (what are the characteristics of the population or situation being studied?) The characteristics used to describe the situation or population is usually some kind of categorical scheme also known as descriptive categories

### **1.7 Data Collection**

Data collection is the process of gathering and measuring information on targeted variables in an established systematic fashion, which then enables one to answer relevant questions and evaluate outcomes.

This research will be based entirely on secondary data. For literature review section, different sources (Journals, Case Studies, Digital Library, Books and Research Papers) will be explored. However for the case study section, the cases of three companies (Tata, SC Johnson and Nestlé) will be illustrated. These cases have been preferred in accordance with the three conditions of BOP logic. Link between the major findings of literature review and case study will be created in the Discussion section. This link is compulsory to develop as it will permit the accomplishment of all assigned objectives of this research project.

### **1.8 What is meant by Bottom of the Pyramid (BOP) Market?**

It has been discovered that the concept of BOP has been defined numerous times by different authors. It has been observed that this untapped market has managed to grab the attention of various MNCs across the globe due to its vast opportunities (Karnani, 2007). But the low purchasing power of consumers within this segment has provoked these MNCs to stay away from it (Matta, 2012). It has been predicted that the sheer size of this market would likely to lead towards profit and product innovation in coming years. By reflecting to the past, Prahalad was the first researcher who analysed the potential of BOP market. In accordance with that potential he came up 12 principles that would guide towards innovation in the BOP market. According to Prahalad (2006), all of these principles are helpful for MNCs to enter and operate in the BOP market. Moreover, Prahalad (2006) also argued that these principle are also useful from the perspective of marketing. He contended that instead of offering existing products to the poor consumers, MNCs should have to realised the needs of BOP consumers, so instead of pushing irrelevant products on them they would have to innovate (Simanis, 2011). Moreover, it does not essential to look for cheap innovation as BOP consumers are also value conscious and would seemed to pay willing for the products that relevant for them and in this way it would generate profits for MNCs as an outcome of aggregated buying power.

In relation to Hammond et al. (2007) research report, BOP estimated to have about 4 billion people whose income is less than \$3,000 per annum. BOP markets are mainly rural with mainstream located in South Asia, Africa, Latin America, Eastern Europe and the Caribbean (Hammond et al., 2007). Relatedly, it has been examined that BOP itself is categorised as homogenous segment because the income of BOP consumers could vary across communities and regions. A figure below illustrates the economic pyramid of estimated BOP market:

It has been demonstrated from the above figure that market opportunity does not only limited to few wealthy people located in the developed countries and it has been intended that massive number of aspiring people are seeming to join market economy for very first time (Hammond et al., 2007). On the top of the pyramid, there is a small proportion of affluent market consumers residing in the developed countries and it is also determine a region from where most of the MNCs have been originated (Prahalad & Hart, 1999). It has

been observed the business approach of most of the MNCs' managers have been accustomed through their familiarity and knowledge about the Tier 1 consumers. The bottom of the pyramid reflects the emerging BOP consumers and great percentage of them have been located in the rural areas of different regions and countries (Pralhad & Hart, 1999).

Nevertheless BOP market is large and it has been implied from the BOP approach that MNCs could manage to make their fortune by selling their marketing offerings to the BOP consumers that have been neglected from the category of potential consumers. It has been intended that the consumption choices of BOP consumers could be enhanced by targeting various products and services and also by reducing the prices of specified marketing offerings only not their quality. BOP market could provides a new growth opportunities to the private sector and could also be emerged as a venue for innovation (Landrum, 2007). While, the bottom line is that old business practices won't work.

It has been estimated BOP consumers used to spend major proportion of their income on housing, food, beverage, transportation and tobacco. However, it has been projected that BOP consumers' spending on food, beverage and tobacco will decrease by 2025 due to increase in their disposable income. Meanwhile, their spending on healthcare, transportation, personal products & services, education and recreational activities are likely to increase steadily (Ozegovic, 2012). It has been expected that the size of BOP market will expand at more intensity than the market size of top of the pyramid consumers. It has been realised that such varying spending pattern requires a proactive change in marketing strategies which would enable MNCs to unlock the complete (full) potential of BOP market (Ozegovic, 2012). BOP market is seems as neglected market which would provide great growth opportunities in comparison to the saturated and developed markets. Consequently, the opportunities and the potential BOP market are massive not only for the private sector but also for the public sector. It has been contended the marketing strategies for BOP market has not only to rely on aspect on reducing the prices of existing marketing offerings but also need to be based on the creation and offering of customised products for the purpose of addressing the BOP consumers' unmet needs. On the basis of 4 billion people living at the BOP, one could contends that collective BOP consumers have significant



purchasing power as BOP consumers constitute a global market of \$5 trillion (Hammond et al., 2007).

## **1.9 Marketing strategies at the bottom of pyramid**

### **1. Affordability**

Low prices are a necessary condition for reaching consumers at the BoP. In Cameroon, Nestle's single-serve dry milk sachets (26 grams) are sold for 30 cents, and the Maggi Tomatoes Bouillon sachet is sold for 5 cents. In Vietnam, Unilever's single-serve Sunsilk shampoo costs 3 cents. Low-cost products are designed, such as the Pepsodent Triple Clean toothbrush, which was launched in 2012 in India and priced at 20 cents. The absence of bank accounts and loans and the absence of savings favor "pay as you go" solutions, like the prepaid SIM cards sold by street vendors or scratch cards used to purchase electricity.

### **2. Availability**

Physical accessibility to products is a key challenge for both consumers and firms at the BoP. Physical distribution is a key to availability of the products for both retailers and consumers. In Bangladesh, Nestlé helps small shopkeepers in remote areas affected by flooding to keep their businesses. The group uses a boat to deliver its products to about 200 small outlets located in riverside communities to ensure that their shelves are regularly stocked.

### **3. Adaptability**

BoP strategies are essentially directed at basic needs (food, housing, transportation, education, energy, and health care), and products need to adapt to local constraints. Local conditions such as health deficiencies (such as anemia), household utilities (e.g., the absence of electricity and refrigeration), and distribution channels (open market, street hawkers, and kiosks) imply adaptation in the form of the product (for example, dehydration).

### **4. Consumer Education**

Literacy among BoP consumers is low—72 percent in Egypt and 39 percent in Senegal, for example (CIA, 2013)—and may lead to an inappropriate use of products. This implies a requirement to inform consumers about the benefits of the products and to educate them on how to use them. In Africa, Maggi brand "cooking caravans" travel through Cameroon,

the Ivory Coast, and Nigeria, educating people about balanced diets, micronutrient deficiency, and the importance of culinary hygiene. The program includes interactive cooking demonstrations, women's forums, group discussions, and presentations on micronutrient fortification.

## **5. Fair and Inclusive Growth**

Beyond the satisfaction of BoP consumer needs, the design, development, manufacturing, and distribution of goods should contribute to building an ecosystem ensuring sustainable development. One of the objectives of a BoP marketing strategy should be to support local economic development, favor entrepreneurship, create jobs, train local employees, and distribute revenues locally. Local communities should participate in all stages of the value chain— from identifying BoP consumer needs to educating consumers how to use the products. For example, Unilever works with the Vietnam Women's Union to provide poor women in rural areas with credit, training, and bicycles so they can sell Unilever products. Unilever Vietnam generates 8,000 indirect jobs through its value chain, and about 60 percent of the company's raw materials and 100 percent of its packaging are sourced locally (Unilever Report, 2012).

### **1.10 Case study**

#### **1. Tata**

The most remarkable innovation in context of BOP is of Tata swach range of water purifiers from Tata chemicals – a Tata group company satisfying the essential necessity of purified water for the BOP for as low as Rs499. This innovation not only provided a sources of potable drinking water but also provided a low cost solution to the already existing purifiers in the Indian market without the need of electricity.

#### **2. Godrej and Boyce**

Another landmark innovation was in the area of refrigerator from Godrej & Boyce called ChotuKool. It provides all functionality of a normal refrigerator but can run on battery and does not need continuous power supply unlike the tradition refrigerator. price at Rs.3250.

#### **3.Coca – Cola:**

Balakrishna and Sidharth applaud Coca-Cola in India for launching in 2003 its low price, affordability strategy, which hinged on raising the overall consumer base by 8 offering

carbonated soft drinks in smaller pack size of 200 ml at Rs.5 which is equivalent to \$0.57.this affordability for Indian poor.

#### **4. Narayana Hrudayalaya-**

The world renowned heart Institute is setting up an ultra low cost hospital near Mysore which will be super specialty hospital to provide medical treatments at a very low cost. The hospital would not be investing much in the infrastructure with the help of pre-fabricated material in the construction.

#### **5. Amul Ice cream :**

Amul, a large Indian dairy cooperative, found an instant market in 2001 when it introduced ice cream, a luxury in tropical India, at affordable prices. Poor people want to buy their children ice-cream every bit as much as middle class families, but before Amul targeted the poor as consumers, they lacked that option.

#### **6.Procter & Gamble**

In Egypt Procter & Gamble's sustainability report states very clear goals and describes various operations aimed at improved sustainability. P&G and its brands develop large-scale operations, such as Pampers working to end neonatal tetanus. In partnership with UNICEF, the Pampers "One Pack=One Vaccine" program provides vaccines against maternal and newborn (neonatal) tetanus (MNT) and in six African countries has been validated by the World Health Organization as having eliminated MNT. Through its Point of Market Entry (POME) programs, Pampers gives free health advice at immunization clinics and hospitals across Nigeria. In India, through a multi brand cause-related marketing program, P&G has built and supported more than 200 primary schools, and delivers menstrual hygiene education to girls, helping to keep them from missing school because of inadequate feminine protection. A massive operation directed at BoP markets is the P&G Children's Safe Drinking Water Program (CSDW). One billion people in BoP countries do not have access to clean drinking water, and the CSDW program provides these people with a water purifying technology developed by P&G and the US Centers for Disease Control and Prevention. This program provides water purification packets (P&G Purifier of Water) on a not-for-profit basis. More than 5 billion liters of purified drinking water distributed in more than 65 countries have prevented an estimated 200 million days of diarrheal illness and helped save more than 25,000 lives. P&G announced that it would

provide 2 billion liters of clean drinking water every year by distributing 200 million P&G water purification packets every year in the developing world (Procter & Gamble Report, 2012).

In Egypt, P&G markets all its major brands, such as Ariel and Tide (detergents), Camay (soap), Head & Shoulders (Shampoo), Crest (toothpaste), Gillette (razors), Always (feminine hygiene), and Pampers (diapers). These products are often sold in different pack sizes, including single serves and small packs to adapt to local purchasing power. Single serves, however, imply a price penalty. For example, Pampers in ten-unit packs are sold for nine Egyptian pounds (0.9 EGP per unit) and the single-serve pack is sold for 1.25 EGP. Whereas the Ariel, Tide, Camay, and Always brands are manufactured locally, the other brands are imported.

### **1.11 Issues and Opportunities For Business in Socially and Environmentally Sensitive World**

#### **Issues -**

1. Create mechanisms that shift the poor from unorganized to an organized sector.
2. Create access to credit on a commercial basis.
3. Create a low cost, high quality distribution system.
4. Educate latent consumers to make choices among more sustainable products and services.

#### **OPPORTUNITIES**

##### **1. Creating Buying Power**

According to the International Labour Organisation in Geneva, nearly a billion people (roughly 30% of the world's labourforce) are either underemployed or have such menial jobs that they can not support themselves or their families. Roughly one fifth of humanity earns less than one dollar per day, and fully half of humanity earns less than what is considered the minimum to sustain life. Thus creating buying power is first priority.

##### **2. Shaping aspirations**

Because the poor of the world have access to T.V., they may get a distorted view of the developed world. Watching reruns of "lifestyles of the rich and famous" or "I Love Lucy"

does not give a realistic view of the developed world; much less what is feasible at the bottom of pyramid if price performance and sustainable development are key considerations.

### **3. Improving access:**

Isolation is the biggest barriers to Tier for development. Often located far from major metropolitan areas. Tier 4 remains largely disconnected from and ignorant to the challenges and opportunities at the bottom.

### **4. Growing Healthy Markets**

By the let 1990s the combined sales of the world's top 200MNCs equated nearly 30% of total world gross domestic product. Yet, at the same time, these same corporations employed less than 1 percent of the world's labourforce.

#### **1.12 Requirement for marketing at BOP Market**

#### **BOP MARKETING REQUIRES ADVANCED TECHNOLOGY -**

The BOP market has a need for advanced technology, but to be usable, infrastructure support must often accompany the technology. For example, ITC, a \$2.6 billion a year Indian conglomerate, decided to create a network of PC kiosks in villages. For years, ITC conducted its business with farmers through a maze of intermediaries, from brokers to traders. The company wanted farmers to be able to connect directly to information sources to check ITC's offer price for produce, as well as prices in the closest village market, in the state capital, and on the Chicago commodities exchange. With direct access to information, farmers got the best price for their product, hordes of intermediaries were bypassed, and ITC gained a direct contact with the farmers, thus improving the efficiency of ITC's soybean acquisition. To achieve this goal, it had to do much more than just distribute PCs. It had to provide equipment for managing power outages, solar panels for extra electricity, and a satellite-based telephone hookup, and it had to train farmers to use the PCs. Without these steps, the PCs would never have worked. The complex solution serves ITC very well. Now more than 10,000 villages and more than 1 million farmers are covered by its system. ITC is able to pay more to farmers and at the same time cut its costs because it has dramatically reduced the inefficiencies in logistics. The vast market for cell phones among those at the BOP is not for phones costing \$200 or even \$100 but for phones

costing less than \$50. Such a phone cannot simply be a cut-down version of an existing handset. It must be very reliable and have lots of battery capacity, as it will be used by people who do not have reliable access to electricity. Motorola went through four redesigns to develop a low-cost cell phone with battery life as long as 500 hours for villagers without regular electricity and an extra-loud volume for use in noisy markets. Motorola's low-cost phone, a no-frills cell phone priced at \$40, has a standby time of two weeks and conforms to local languages and customs. The cell-phone manufacturer says it expects to sell 6 million cell phones in six months in markets including China, India, and Turkey.

### **BOP MARKETING REQUIRES CREATIVE FINANCING**

There is also demand for personal computers but again, at very low prices. To meet the needs of this market, Advanced Micro Devices markets a \$185 Personal Internet communicator—a basic computer for developing countries—and a Taiwan Company offers a similar device costing just \$100. For most products, demand is contingent on the customer having sufficient purchasing power. Companies have to devise creative ways to assist those at the BOP to finance larger purchases. For example, Cemex, the world's third-largest cement company, recognized an opportunity for profit by enabling lower-income Mexicans to build their own homes. The company's Patrimonio Hoy Programmed, a combination builder's "club" and financing plan that targets homeowners who make less than \$5 a day, markets building kits using its premium grade cement. It recruited 510 promoters to persuade new customers to commit to building additions to their homes. The customers paid CEMEX \$11.50 a week and received building materials every 10 weeks until the room was finished (about 70 weeks—customers were on their own for the actual building). Although poor, 99.6 percent of the 150,000 Patrimonio Hoy participants have paid their bills in full. Patrimonio Hoy attracted 42,000 new customers and is expected to turn a \$1.5 million profit next year.

### **BOP MARKETING REQUIRES EFFECTIVE DISTRIBUTION**

When Unilever saw that dozens of agencies were lending microcredit loans funds to poor women all over India, it thought that these would-be microentrepreneurs needed businesses to run. Unilever realized it could not sell to the bottom of the pyramid unless it found low-cost ways to distribute its product, so it created a network of hundreds of thousands of

Shakti Amma (“empowered mothers”) who sell Lever’s products in their villages through an Indian version of Tupperware parties. Start-up loans enabled the women to buy stocks of goods to sell to local villagers. In one case, a woman who received a small loan was able to repay her start-up loan and has not needed to take another one. She now sells regularly to about 50 homes and even serves as a miniwholesaler, stocking tiny shops in outlying villages a short bus ride from her own. She sells about 10,000 rupees (\$230) of goods each month, keeps about \$26 profit, and ploughs the rest back into new stock. While the \$26 a month she earns is less than the average \$40 monthly income in the area, she now has income, whereas before she had nothing. Today about 1,300 poor women are selling Unilever’s products in 50,000 villages in 12 states in India and account for about 15 percent of the company’s rural sales in those states. Overall, rural markets account for about 30 percent of the company’s revenue.

#### **BOP MARKETING REQUIRES AFFORDABLE PACKAGING**

As one observer noted, “the poor cannot be Walmartized.” Consumers in rich nations use money to stockpile convenience. We go to Sam’s Club, Costco, Kmart, and so on, to get bargain prices and the convenience of buying shampoos and paper towels by the case. Selling to the poor requires just the opposite approach. They do not have the cash to stockpile convenience, and they do not mind frequent trips to the village store. Products have to be made available locally and in affordable units; fully 60 percent of the value of all shampoo sold in India is in single-serve packets. Nestlé is targeting China with a blitz of 29 new ice cream brands, many selling for as little as 12 cents with take-home and multipack products ranging from 72 cents to \$2.30. It also features products specially designed for local tastes and preferences of Chinese consumers, such as Nestlé Snow Moji, a rice pastry filled with vanilla ice cream that resembles dim sum, and other ice cream flavors like red bean and green tea. The ice cream products are distributed through a group of small independent saleswomen, which the company aims to expand to 4,000 women by next year. The project is expected to account for as much as 24 percent of the company’s total rural sales within the next few years.

#### **BOP MARKETING CREATES HEALTH BENEFITS**

Albeit a promotion to sell products, marketing to BOP does help improve personal hygiene. The World Health Organization (WHO) estimates that diarrhea-related diseases kill 1.8

million people a year and noted that better hand-washing habits—using soap—is one way to prevent their spread. In response to WHO urging, Hindustan Lever Company introduced a campaign called “Swasthya Chetna” or “Glowing Health,” which argues that even cleanlooking hands may carry dangerous germs, so use more soap. It began a concentrated effort to take this message into the tens of thousands of villages where the rural poor reside, often with little access to media. “Lifebuoy teams visit each village several times,” using a “Glo Germ” kit to show schoolchildren that soap-washed hands are cleaner. This program has reached “around 80 million rural folk,” and sales of Lifebuoy in small affordable sizes have risen sharply. The small bar has become the brand’s top seller.

### **1.13 Conclusion –**

The Bottom of the pyramid represents a very large and attractive market with significant but specific needs and challenges. In order to successfully penetrate the BOP markets, multinational must develop new and innovative approaches in a heterogeneous market. Indeed the BOP has a range of very different cultures with different a lot of different levels of income, it is difficult to develop a comprehensive strategies in such a specific market. To successfully overcome these specificities, as we have seen in the majority of case studies, many companies create a local partnership and succeed in adopting themselves to local queries. Merely selling to the BOP does not solve poverty, it depends what you sell, and how you sell it, and where it was produced. BOP strategies have the potential to bring positive benefits to companies and communities, but improper application can have devastating consequences. Understanding the local situation is crucial. The key to resolving the debate is a better understanding of both the risk, challenges and opportunities presented by the BOP market.

### **1.14 References**

Sources: C. K. Prahalad, *The Fortune at the Bottom of the Pyramid* (Philadelphia: Wharton School Publishing, 2004); Stefan Stern, “How Serving the Poorest Can Bring Rich Rewards,” *Management Today*, August 2004; Kay Johnson and Xa Nhon, “Selling to the Poor: There Is a Surprisingly Lucrative Market in Targeting Low-Income Consumers,”



Arnold, D., & Valentin, A. (2013). Corporate social responsibility at the base of the pyramid. *Journal of Business Research*, 66(10), 1904–1914.

Other resources- Book- Managing for sustainability – Thakur publications, library books& journals

[www.google.com](http://www.google.com)

## Green Marketing – Opportunities & Challenges

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### Abstract

Green marketing is a phenomenon which has developed particular important in the modern market. This concept has enabled for the re-marketing and packaging existing products which already adhere to such guidelines of additionally, the development of green marketing has opened the door of opportunity for companies to co-brand their products into separate line, lauding the green. Friendliness of some while ignoring that of others. Such marketing techniques will be explained as a direct result of movement in the minds of the consumer market. All the three types of companies' i.e. Durable, Non- durable and Services have positive attitude for green philosophy and green practices and of the opinion that competitive advantage through green marketing is the new mantra of success and growth. The findings showed that people in developing countries like India too have high concern for greener environment and have an overall positive attitude towards green marketing. Their preferences are shifting from grey products to green products and their awareness for environmental concern is high. Companies are going green to attract customers and they also feel that "In future more and more consumers will prefer green products and they also feel that in future, the companies having green image will be preferred over the others. Similarly, the results of this study performed on Indian industries reflect a very positive attitude of companies towards green marketing for gaining competitive advantage.

**Keywords:** Green product, Green Consumer, Eco Friendly, Sustainable Development.

### 1.1 Introduction

Although environmental issues influence all human activities, few academic disciplines have integrated green issues into their literature. As society becomes more concerned with the natural environment, businesses have begun to modify their behaviour in an attempt to

address society's "new" concerns. Some businesses have been quick to accept concepts like environmental management systems and waste minimization, and have integrated environmental issues into all organizational activities. One business area where environmental issues have received a great deal of discussion in the popular and professional press is marketing. Terms like "Green Marketing" and "Environmental Marketing" appear frequently in the popular press. Many governments around the world have become so concerned about green marketing activities that they have attempted to regulate them. There are various by-laws, rules and regulation made by the government to protect the natural environment.

### **Marketing**

Identifying the needs of customers and potential customers, providing products/services that satisfy their needs, and developing efficient processes or systems to deliver your product/service to the market when, where, and how consumers want it.

### **Green Marketing**

"The marketing of products that are presumed to be environmentally safe." American Marketing Association, (Green Markets International, Accessed 2008) "Promotional activities aimed at taking advantage of the changing consumer attitude towards a brand. These changes are increasingly being influenced by a firm's policies and practices that affect the quality of the environment and reflect the level of its concern for the community." Businessdictionary.com "Integrating business practices and products that are friendly to the environment while also meeting the needs of the consumers."

## **1.2 Features of Green Marketing**

Anyone cannot really market your business/product as green without managing your company functions with respect to the environment. Green marketing can take many forms. For instance, you may market eco-friendly aspects such as:

**1. Environmental Causes:** Any organization can choose to work for and to promote environmental causes. Non-profits Organisations and Non-Government Organisations (NGOs) will engage in green marketing to get the word out about their activities, but for-

profits can also suppose environmental causes by making donations and advertising/promotions for these environmental do-gooders as part of a green marketing campaign.

**2. Green Products:** Companies for producing green products can do many things like choosing sustainable materials, designing products to save energy and water and making products that are less toxic and more natural than competitor's goods. Greener products will also be packaged in an eco-friendly way and will be made to be easily recycled or composted.

**3. Operational Sustainability:** Service companies and manufacturers can improve operational sustainability by reducing everyday energy, power, paper and water consumption, minimizing pollution, using greener materials and processes and properly managing waste.

**4. Sustainable Marketing:** You'll also want to ensure that the actual marketing systems you use are green, which is really distinct from your operational sustainability which focuses on manufacturing and production. For example, when printing marketing materials, use 100% post-consumer recycled paper made without chlorine (called "processed chlorine free") and printed using plant-based dyes (like soy inks). You could also investigate tools like green web hosting, carbon

### **1.3 What makes Marketing Green?**

You cannot really market your business/product as green without managing your company functions with respect to the environment. Green marketing can take many forms. For instance, you may market eco-friendly aspects such as:

**1. Environmental Causes:** Any organization can choose to work for and to promote environmental causes. Non-profits Organisations and Non-Government Organisations (NGOs) will engage in green marketing to get the word out about their activities, but for-profits can also suppose environmental causes by making donations and advertising/promotions for these environmental do-gooders as part of a green marketing campaign.

2. **Green Products:** Companies for producing green products can do many things like choosing sustainable materials, designing products to save energy and water and making products that are less toxic and more natural than competitor's goods. Greener products will also be packaged in an eco-friendly way and will be made to be easily recycled or composted.

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4. **Sustainable Marketing:** You'll also want to ensure that the actual marketing systems you use are green, which is really distinct from your operational sustainability which focuses on manufacturing and production. For example, when printing marketing materials, use 100% post-consumer recycled paper made without chlorine (called "processed chlorine free") and printed using plant-based dyes (like soy inks). You could also investigate tools like green web hosting.

## 1.4 Objectives

- To know the concept of green marketing.
- To identify the importance and need of green marketing.
- To study the challenges and prospects of green marketing.

## 1.5 Rationale

Green marketing offers business bottom line incentives and top line growth possibilities. While modification of business or production processes may involve startup costs, it will save money in the long term. For example, solar energy is an investment in future energy cost savings. Companies that develop new and improved products and services with environmental impacts in mind give themselves access to new markets, substantially increase profits and enjoy competitive advantages over those marketing non-environmentally responsible alternatives.

## 1.6 Scope

In this contemporary world, an ecological environmental issue such as global warming interests both the marketing practitioners as well as the consumers. Companies all across the globe have started differentiating their products and services by using go-green concern and have started utilizing ecological marketing approach as a mere competitive edge. This green marketing approach is largely used as a gimmick by the gigantic corporate houses in order to make a difference in the consumer's point of view when it comes to major market decisions. With the human wants escalating heavily, the resources are decreasing.

## 1.7 Review of Literature

### **The Green Marketing Grid (Grant, 2007) and The Green Marketing Strategy Matrix (Ginsberg & Bloom, 2004)**

Green Marketing Strategy Developing a strategy, of any kind, is a complex undertaking which can be facilitated with the help of theoretical frameworks. Therefore, this section will present two models, which will be used to analyse a corporation's strategic options within green marketing. The Green Marketing Grid: Grant views green marketing as 'a creative opportunity, to innovate in ways that make a difference and at the same time achieve business success' (2007). He has developed the Green Marketing Grid, consisting of 18 different types of green marketing aimed at making green alternatives seem normal and accepted (2007).

**<http://shodhganga.inflibnet.ac.in/bitstream/10603/25033/17/8.1.%20introduction%20of%20rural%20marketing.pdf>**

According to Hart (1997), developing a sustainable global economy is a challenge and an opportunity. Basically, a company can prevent pollution by eliminating or minimizing waste before it is created. Companies that have put emphasis on prevention have responded with green marketing programs, such as developing ecological safer products, recyclable and biodegradable packaging, better pollution controls and more energy-efficient processes (Armstrong and Kotler, 2007, p. 509). For example, Nestlé, as will be mentioned later on,

has been working hard on reducing the utilization of environmentally hazardous substances, by economized use of raw materials.

**[http://www.academia.edu/2581686/Green\\_marketing\\_in\\_India\\_emerging\\_opportunities\\_and\\_challenges](http://www.academia.edu/2581686/Green_marketing_in_India_emerging_opportunities_and_challenges)**

This paper discusses how businesses have increased their rate of targeting green consumers, those who are concerned about the environment and allow it to affect their purchasing decisions. The paper identifies the three particular segments of green consumers and explores the challenges and opportunities businesses have with green marketing.

### **1.8 Research Methodology**

Type of Research of study is exploratory & descriptive in nature. The data is collected from the books, publication & Websites.

### **1.9 Why Firms Opting for Green Marketing?**

When looking through the literature, there are several suggested reasons for firms increased use of Green Marketing. Five possible reasons cited are:

- Organizations perceive environmental marketing to be an opportunity that can be used to achieve its objectives.
- Organizations believe they have a moral obligation to be more socially responsible.
- Governmental bodies are forcing firms to become more responsible.
- Competitors' environmental activities pressure firms to change their environmental marketing activities.
- Cost factors associated with waste disposal, or reductions in material usage forces firms to modify their behaviour.

### **1.10 Goals of Green Marketing**

- Eliminate the concept of waste.
- Reinvent the concept of product.
- Make prices reflect actual and environmental costs.
- Make environmentalism profitable. Bringing out product modifications.

- Changing in production processes.
- Packaging changes. Modifying advertising. Green Consumers
- The Green marketer can attract customers on the basis of performance, safety, money savings, efficiency, health and convenience, or just plain environmental friendliness, so as to target a wide range of green consumers.
- Consumer awareness can be created by spreading the message among consumers about the benefits of environmental-friendly products.
- Positing of profiles related to green marketing on social networks creates not only the awareness within and across online peer groups but also it can increase the consumption of such products.
- Marketing can also directly target the consumers through advertisements for product such as energy saving light emitting lamps etc.

The book Sustainability Marketing by Belz and Peattie they go one step further in terms of not just marketing but operating “green”. They transformed the 4 P's of marketing into the 4 C's. Those four C's are – customer solutions, customer cost, communication and convenience are taking the point of view of the customer

### **1.11 Ways to Successful Green Marketing**

Show potential customers that you follow green business practices and you could reap more green on your bottom line. Green marketing isn't just a catchphrase; it's a marketing strategy that can help you get more customers and make more money. But only if you do it right. For green marketing to be effective, you have to do three things; be genuine, educate your customers, and give them the opportunity to participate.

1) Being genuine -means that a) that you are actually doing what you claim to be doing in your green marketing campaign and b) that the rest of your business policies are consistent with whatever you are doing that's environmentally friendly. Both these conditions have to be met for your business to establish the kind of environmental credentials that will allow a green marketing campaign to succeed.



2) Educating your customers isn't just a matter of letting people know you're doing whatever you're doing to protect the environment, but also a matter of letting them know why it matters. Otherwise, for a significant portion of your target market, it's a case of "So what?" and your green marketing campaign goes nowhere.

3) Giving your customers an opportunity to participate means personalizing the benefits of your environmentally friendly actions, normally through letting the customer take part in positive environmental action.

### **1.12 Need for Green Marketing**

Man has limited resources on the earth, with which she/he must attempt to provide for the worlds' unlimited wants. Hence there is "freedom of choice", that individuals and organizations have the right to attempt to have their wants satisfied. As firms face limited natural resources, they must develop new or alternative ways of satisfying these unlimited wants. When looking through the literature there are several suggested reasons for firms increased use of Green Marketing. Five possible reasons are as follows

1. Organizations perceive environmental marketing to be an opportunity that can be used to achieve its objectives.
2. Organizations believe they have a moral obligation to be more socially responsible. Governmental bodies are forcing firms to become more responsible.
3. Competitors' environmental activities pressure firms to change their environmental marketing activities.
4. Governmental bodies are forcing firms to become more responsible.
5. Cost factors associated with waste disposal, or reductions in material usage forces firms to modify their behaviour.

### **1.13 Challenges of Green Marketing**

- **Need for standardization:** It is found that only 5% of the marketing messages from "Green" campaigns are entirely true and there is a lack of standardization to authenticate these claims. There is no standardization currently in place to certify a

product as organic. Unless some regulatory bodies are involved in providing the certifications there will not be any verifiable means. A standard quality control board needs to be in place for such labelling and licensing.

- **New concept:** Indian literate and urban consumer is getting more aware about the merits of green products. But it is still a new concept for the masses. The consumer needs to be educated and made aware of the environmental threats. The new green movements need to reach the masses and that will take a lot of time and effort. By India's ayurvedic heritage, Indian consumers do appreciate the importance of using natural and herbal beauty products. Indian consumer is exposed to healthy living lifestyles such as yoga and natural food consumption. In those aspects the consumer is already aware and will be inclined to accept the green products.
- **Patience and Perseverance:** The investors and corporate need to view the environment as a major long-term investment opportunity, the marketers need to look at the long-term benefits from this new green movement. It will require a lot of patience and no immediate results. Since it is a new concept and idea, it will have its own acceptance period.

#### 1.14 Opportunities of Green Marketing

- **Environment friendly products**  
In India, around 25% of the consumers prefer environment friendly products, and around 28% may be considered health conscious. Therefore, green marketers have diversified to fairly sizeable segment of consumers to cater to.
- **Cost Reduction**  
Reduction of harmful waste may lead to substantial cost savings. Sometimes, many firms develop a symbiotic relationship whereby the waste generated by one company is used by another as a cost-effective raw material.
- **Social Responsibility** Many companies have started realizing that they must behave in an environment friendly fashion. They believe both in achieving environmental objectives as well as profit related objectives respecting the principle of Extended Producer Responsibility (EPR).

- **Governmental Pressure** Various regulations are framed by the government to protect consumers and the society at large. The Indian government too has developed a framework of legislations to reduce the production of harmful goods and by-products. These reduce the industry's production and consumer 's consumption of harmful goods, including those detrimental to the environment; for example, the ban of plastic bags, prohibition of smoking in public areas, etc.
- **Competitive Pressure**-Another major force in the environmental marketing area has been a firm's desire to maintain its competitive position. In many cases, firms observe competitors promoting their environmental behaviours and attempt to emulate this behaviour. It is only in some instances that this competitive pressure causes an entire industry to modify and thus reduce its detrimental environmental behaviour.
- **Cost / Profit Issues**-Certain firms use green marketing to address cost/profit related issues. Disposing of environmentally harmful by-products, such as polychlorinated biphenyl (PCB) contaminated oil are becoming increasingly costly and in some cases difficult. Therefore, when attempting to minimize waste, firms are often forced to re-examine their production processes. In these cases, they often develop more effective production processes that not only reduce waste, but reduce the need for some raw materials. This serves as a double cost savings, since both waste and raw material are reduced

### 1.15 Conclusion.

Now this is the right time to select "Green Marketing" globally. It will come with drastic change in the world of business if all nations will make strict roles because green marketing is essential to save world from pollution. From the business point of view because a clever marketer is one who not only convinces the consumer, but also involves the consumer in marketing his product. With the threat of global warming looming large, it is extremely important that green marketing becomes the norm rather than an exception. Recycling of paper, metals, plastics, etc., in a safe and environmentally harmless manner should become much more systematized and universal. It has to become the general norm to use energy-

efficient lamps and other electrical goods. Marketers also have the responsibility to make the consumers understand the need for and benefits of green products as compared to non-green ones. In green marketing, consumers are willing to pay more to maintain a cleaner and greener environment. Green marketing assumes even more importance and relevance in developing countries. It is quite evident from the above findings and discussions that industries in India are quite positive in practicing green marketing philosophies for gaining competitive advantage sustainable development.

### 1.16 Reference

- [http://www.academia.edu/2581686/Green\\_marketing\\_in\\_India\\_emerging\\_opportunities\\_and\\_challenges](http://www.academia.edu/2581686/Green_marketing_in_India_emerging_opportunities_and_challenges)
- <http://ijiet.com/wp-content/uploads/2013/07/71.pdf>
- <http://iosrjournals.org/iosr-jbm/papers/ncvbm/volume-1/6.pdf>
- [http://shodhganga.inflibnet.ac.in/simplesearch?location=%2F&query=green+marketing&rpp=10&sort\\_by=score&order=desc](http://shodhganga.inflibnet.ac.in/simplesearch?location=%2F&query=green+marketing&rpp=10&sort_by=score&order=desc)
- Sharma D.D. (2008), —Marketing Research: Principle Application & Cases| N. Delhi, Sultan Chand & Sons .
- R. Shrikanth Et al, Contemporary green marketing-brief reference to Indian scenario, International journal of social science and interdisciplinary research, vol. I, Jan.2012.26-38. .
- Dr. Sarawade W.K. Conceptual development of green marketing in India, Excel journal of engineering technology and management science, vol. I, June 2012.1-6.

## Corporate Social Responsibility- Study of trend in Expenditure of CSR

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### Abstract

Corporate Social Responsibility has become significantly integral part of the business planning and strategy as it has become very much necessary for existence of organizational survival... Company is focusing on the long term goals as in the investment for the CSR but execution of CSR turns out to be difficult. Most of the company is not able to use the entire funds which were allocated to CSR. Ultimately in the welfare of the stakeholders, lies the welfare of the company. As per the survey the key components for the CSR strategy is Governance, Disclosure, sustainability and Stakeholders. The CSR initiatives of the company tend to have a positive impact on all these factors.

**Keywords:** Corporate Social Responsibility, Stakeholders

### INTRODUCTION

**STUDY BACKGROUND** Past Conceptualizations of CSR: A Brief Overview since the 1950s, CSR (e.g., Bowen 1953) along with the related notions of corporate social responsiveness, corporate social responses (e.g., Strand 1983), and corporate social performance (e.g., Carroll 1979; Wood 1994), have been the subject of many conceptualizations originating mainly from the management literature. This section outlines the main conceptual viewpoints that emerge out of this profuse literature. CSR as social obligation. This first perspective was launched by Bowen (1953), who defined CSR as the obligation "to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society" (p. 6). The view of CSR as a social obligation has been advocated in later conceptualizations (e.g., Carroll 1979) and contemporary marketing studies (e.g., Brown and Dacin 1997; Sen and Bhattacharya 2001). As emphasized by Carroll (1979), different types of social obligations can be distinguished: (a) economic obligations (be productive and

economically viable), (b) legal and ethical obligations (follow the law and acknowledged values and norms), and (c) philanthropic obligations (proactively give back to society).

### CSR in the Marketing Literature

Within the marketing literature, much fragmentation can be observed in terms of the unit of analysis considered and the dimensions of social responsibility investigated. When marketing scholars started expressing concern for corporate social responsibilities in the 1960s and 1970s, they focused on the social duties attached to the marketing function and not on the overall social role of the firm (e.g.

Kotler and Levy 1969; Lazer 1969). As a result, the field of social marketing has emerged and has specialized in the contribution of marketing activities to socially desirable behaviors and goals (Andreasen 1994). Similarly, the marketing literature has developed much knowledge on the ethical perceptions, reasoning, and decision-making process of marketing managers (e.g., Blodgett, Lu, Rose, and Vitell 2001; Ferrel and Gresham 1985; Goolsby and Hunt 1992) and has allocated little attention to the ethical responsibilities of the firm as a whole. Overall, past studies have rarely considered how marketing thinking and practices can contribute to the development of socially responsible practices throughout the organization. In addition, when marketing scholars investigate CSR, they have a tendency to focus on very limited dimensions of this construct.

## III. RESEARCH METHODOLOGY

### DATA SAMPLE

As per the survey conducted by Utkarsh Majmudar, Namrata Rana, Neeti Sanan, 2016, *Gearing Up for Responsible Growth India's Top Companies for Sustainability and CSR 2016*, IIM Udaipur, *The Economic time and Futurescape*, the study is based on data on sustainability and CSR drawn from sustainability reports, business responsibility reports, CSR annual reports, company annual reports and company websites. All the data pertains to financial year ended 2015. For most companies, this implies the 2014-15 financial year. Study data consists of data from 217 companies. We selected the top 200 companies are from the ET- 500, an annual ranking of the largest companies in India based on their revenues. Further, 17 companies responded to and qualified for call for entries, taking the sample size to 217. The sample consists of 167 private companies and 50 public-sector

companies. Of the total, 141 companies are from the manufacturing sector and 76 from the services sector.

	Manufacturing	Service	Total
Public	20	30	50
Private	121	46	167
	141	76	217

**Industry-wise breakdown is as follows:**

	Public	Private	Manufacturing	Service	Total
Energy	10	2	11	1	12
Diversified	2	21	17	6	23
Consumer Discretionary	0	31	29	2	31
Financials	24	11	0	35	35
Materials	7	23	30	0	30
Telecommunication Services	0	5	0	5	5
Capital Goods	2	13	15	0	15
Information Technology	0	10	1	9	10
Utilities	2	10	12	0	12
Other Industrials	1	4	1	4	5
Other Financials	2	12	0	14	14
Consumer Staples	0	16	16	0	16
Healthcare	0	9	9	0	9
All	50	167	141	76	217

#### IV. LITERATURE REVIEW

As per the survey conducted by Utkarsh Majmudar, Namrata Rana, Neeti Sanan, 2016, Gearing Up for Responsible Growth India's Top Companies for Sustainability and CSR 2016, IIM Udaipur, The Economic time and Futurescape

Disclosure	Score
Sub criterion 1	1
Sub criterion 2	0
Sub criterion 3	1
Sub criterion 4	1
<b>Total</b>	<b>3</b>

### **Governance (20%) –**

How well is the governance for CSR and sustainability structured?

Board oversight of CSR and sustainability issues

Managerial accountability of CSR and sustainability issues

Corporate policies and management systems, such as a signatory to the United Nations

Global Compact (UNGC), a formal policy on sustainable practices, a formal CSR policy, etc.

### **Disclosure (15%) –**

How forthcoming are companies with respect to CSR and sustainability activities and performance?

Sustainability reports as per standards, such as the GRI reports

Disclosure in financial filings

Participation in global projects such as the Carbon Disclosure Project

### **Stakeholders (30%) –**

How well are key stakeholders (employees, community, customers and suppliers) integrated within a company's CSR framework?

Employee-centric initiatives

Customer-centric initiatives

Community-centric initiatives

Supplier-centric initiatives

### **Sustainability (35%) –**

How pervasive are sustainability practices of companies?



Programmes related to waste, water and energy, and targets to reduce their impact

Promoting sustainable products and services

Programmes and targets to build sustainable supply chains

Programmes and targets to build sustainable logistics

After the analyst reviews a company, another analyst reviews the scores for a quality check.

Differences of opinion on a score, if any, are resolved through (i) mutual agreement or (ii) reference to the authors. This process makes the study as rigorous as possible. The study analyses the top 217 companies to arrive at the ranking. These companies belong to industries as varied as automobiles, banks, diversified, FMCG, infrastructure, IT, metals and mining, oil, power, steel, pharmaceuticals, telecommunications and others.

## VI. FINDINGS

As per the survey conducted by Utkarsh Majmudar, Namrata Rana, Neeti Sanan, 2016, Gearing Up for Responsible Growth India's Top Companies for Sustainability and CSR 2016, IIM Udaipur, The Economic time and Futurescape

- The study focuses on four main criteria, Governance, Disclosure, Stakeholders and Sustainability.
- These four criteria are assigned weights of 20% for Governance, 15% for Disclosure, 35% for Sustainability and 30% for Stakeholders respectively and form the basis of the ranking. These
- Weights were based on the outcome of a Delphi study with industry leaders and academics.

1. Only the Top 33% companies believe in taking the long term view on responsible business

For the longest time Indian companies have focused on market access, customer acquisition and compliance.

2. Governance for business responsibility sees improvement

Governance was in general good across both manufacturing and service industries, except for policy on biodiversity and participation in global agreements.

3. Disclosures are poor as sustainability reporting is inadequate

Disclosures were poor in general because sustainability reporting was weak, especially in manufacturing industries.

#### 4. Sustainability is at the heart of high performing companies

Top performing companies have increased their focus on sustainability and also deepened current efforts around reduction of emissions, climate change, waste management, water and energy. 47% companies had higher sustainability scores (YOY), 34% remained the same and 19% witnessed decline.

#### 5. Companies look at long term projects and not charity

32% companies spent 2% and more in 2014-15 on CSR activities, higher than 18% in the previous year of study. Further 33% companies spent between 1% and 2% of their average PAT.

#### 6. Government push makes corporate India step up

The Companies Act of 2013 and several government initiatives have pushed companies to work in relevant areas.

**Swachh Bharat** - The mission has been taken up by companies across the country with some success. About 39% of the companies surveyed have a focus on Swachh Bharat - primarily focused on construction of toilets.

**Solar** - The push toward renewable has been another focus area for the government. We find that 59% of the companies surveyed work in the areas of solar energy.

#### 7. Emissions disclosure needs more focus

Only 36% (38% in previous year) of India's top ~200 companies disclosed data on GHG emissions while 54% participated in carbon specific initiatives such as Carbon Disclosure Project (CDP).

#### 8. Energy and Materials try to mitigate the impact on the external world through a business responsibility focus

Companies in the energy and materials sector dominate performance across the criteria of governance, disclosure, stakeholders and sustainability.

#### 9. The Responsible Business Matrix

Companies spend money on their business responsibility. The study tracks the money spent against the business responsibility performance.

### VIII. CONCLUSION

As per the survey conducted by Utkarsh Majmudar, Namrata Rana, Neeti Sanan, 2016, Gearing Up for Responsible Growth India's Top Companies for Sustainability and CSR 2016, IIM Udaipur, The Economic time and Futurescape We studied 217 companies, of which CSR spend data is available for 173 companies. Data is not available for 21 companies and we exclude another 23 companies that had a net loss in the previous three years. Separately, there are four companies that have not spent anything in the year despite having average net profit. We exclude them as well from the study. The prescribed CSR spend for 173 companies, computed as 2% of aggregate average net profit, is Rs 7,934 crores (cr). However, we find that the aggregate funds committed by these companies in their reports is approximately 5% higher at Rs 8,267 cr.

I-RANK 2015	
1	Tata Steel Ltd.
2	Tata Power Company Ltd.
3	UltraTech Cement Ltd.
4	Mahindra & Mahindra Ltd.
5	Tata Motors Ltd.
6	Tata Chemicals Ltd.
7	ITC Ltd.
8	Shree Cement Ltd.
9	Bharat Petroleum Corporation Ltd.
10	Larsen & Toubro Ltd.
11	Infosys Ltd.
12	ACC Ltd.
13	Indian Oil Corporation Ltd.
14	Ambuja Cements Ltd.
15	Steel Authority of India (SAIL) Ltd.
16	Jubilant Life Sciences Ltd.
17	Coca-Cola India Pvt. Ltd
18	GAIL (India) Ltd.
19	Tata Consultancy Services Ltd.
20	Hindustan Unilever Ltd.
21	Cisco Systems India Pvt. Ltd.
22	JSW Steel Ltd.
23	Hindustan Petroleum Corporation Ltd.
24	Maruti Suzuki India Ltd.
25	YES Bank Ltd.
26	Cummins India
27	HCL Technologies Ltd.
28	Reliance Industries Ltd.
29	Essar Oil Ltd.
30	Hindustan Construction Company Ltd.
31	Nestle India Ltd.
32	Oil And Natural Gas Corporation Ltd.
33	Jindal Steel & Power Ltd.
34	Vedanta Ltd.
35	Dr. Reddy's Laboratories Ltd.
36	Dabur India Ltd.
37	Apollo Tyres Ltd.
38	Bajaj Auto Ltd.
39	Chambal Fertilisers & Chemicals Ltd.
40	Bharat Heavy Electricals Ltd.
41	NTPC Ltd.
42	Wipro Ltd.
43	Oil India Ltd.
44	HDFC Bank Ltd.
45	Hindalco Industries Ltd.
46	Bharat Electronics Ltd.
47	Godrej Consumer Products Ltd.
48	Power Grid Corporation of India Ltd.
49	Bosch Ltd.
50	Hindustan Zinc Ltd.

## IX: REFERENCES

1. Dr. Moon Urmilla, “Corporate Social Responsibility in India” Maratha Mandir’s Babasaheb Gawde Institute of Management Studies
2. Nitin Kumar, “Corporate Social Responsibility : An Analysis of Impact and Challenges in India” Journal of Research in Management & Technology, Volume 3, Issue 5 (May 2014)
3. Parveen Mann, “CSR- Key Issues and Challenges in India” International Journal of Science, Environment and Technology, Volume 3, Issue 6 (May 2014)
4. Renu Arora, Dr. Richa Garg, “Corporate Social Responsibility – Issues and Challenges in India” International Journal of Research in Finance & Marketing, Volume 3, Issue 2 (March 2013)
5. Utkarsh Majmudar, Namrata Rana, Neeti Sanan, 2016, Gearing Up for Responsible Growth India’s Top Companies for Sustainability and CSR 2016, IIM Udaipur, The Economic time and Futurescape
6. <http://economictimes.indiatimes.com/>
7. <https://iimu.ac.in/>
8. <https://www.futurescape.in/>
9. [www.badvegroup.com](http://www.badvegroup.com)
10. [www.finolex.com](http://www.finolex.com)
11. [www.garwarepoly.com](http://www.garwarepoly.com)
12. [www.suzlon.com](http://www.suzlon.com)
13. [www.varrogroup.com](http://www.varrogroup.com)
14. [www.wiki.org](http://www.wiki.org)

## Relating Service Quality and Patient Satisfaction at Multispecialty Hospitals

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**Abstract:** Services has always been difficult to evaluate compared to tangible products and hospitals services is no exception to this. The difficulty in evaluating the quality of services is due to the inherent nature of services. There have been many theories explaining the characteristics of services. The quality of services depends on the five service dimensions like tangibility, empathy, assurance, reliability and responsiveness. The present study is an attempt to relate the quality of services and patient satisfaction at multispecialty hospitals in Nashik city. The study was conducted on 50 randomly selected patients at seven multispecialty hospitals in the city and a structured questionnaire was administered for collecting the data. Quality of service was measured on the basis of rankings given by patients along with measuring the five service dimensions. The study revealed a positive relationship between each service dimension and service quality. Further there was also a positive correlation between service quality and patient satisfaction.

**Key Words:** Service quality, Patient satisfaction, Multispecialty hospitals, Service dimensions.

### Introduction:

Recent years has witnessed a radical change in the service quality sector, be it the hospitality industry or the hospital or the healthcare industry. This radicalization may be attributed to the growth in the medical tourism industry, health awareness among consumers, the mushrooming growth of public hospitals such as Apollo Hospital, Sahyadri Hospital, Wockhardt Hospital to name a few which has boosted the competition among the private and public hospitals. With the growing competition in the healthcare industry, hospitals have started undertaking various promotion campaigns along with alignment of a broad spectrum of hospital services to attract patients. It has been very crucial to maintain the quality of services at multispecialty hospitals as compared to the specialty or super-

specialty hospitals as the requirement of patient varies to a great extent along with the various governmental compliances required. A multispecialty hospital has to depute medical experts from a variety of fields like general medicine, surgery, gynecology, oncology, pediatrics etc. and in doing so the complexities associated with these streams also increase simultaneously. Multispecialty hospitals in this respect are facing a strong competition from specialty and superspecialty hospitals as they provide the core services to the patients. The quality of services provided at multispecialty hospital plays a very significant role in influencing patient satisfaction. This paper tries to understand the impact of various service quality dimensions on patient satisfaction.

**Literature Review:** Improving the quality of medical care services has become a primary concern for patients, and, in order to provide better service to patients, service quality has become increasingly important for hospitals in respect of satisfying and retaining patients (Alhashem et al., 2011; Arasli et al., 2008). SERVQUAL, a standard instrument for measuring functional service quality, is reliable and valid in the hospital environment and in a variety of other service industries (Babakus, E. et. al., 1992). Patient satisfaction is not a clearly defined concept, although it is identified as an important quality outcome indicator to measure success of the services delivery system (Al-Abri, R. Al-Balushi, A. (2014). A hospital may qualitatively comply with the licensing standards and specifications of the government, but quantifying these standards may not always imply that such measures are consistently aligned with the perceived service quality of the patients (Bautista, J. M. and Tangsoc, J. C., 2010). Service quality is a complex and multidimensional construct and hospital administrations need to gather systematic feedback from their patients and to establish visible and transparent complaint procedures so that patients' complaints can be addressed effectively and efficiently (Brahmbhatt, D. M., Baser, D. N., & Joshi, P. N., 2011). In the era of globalization and heightened competition, it has been observed that delivery of quality service is imperative for Indian healthcare providers to satisfy their indoor as well as outdoor patients. Hence, it is essential to be aware of how the patients and patient parties evaluate the quality of health care service (Chakraborty, R., & Majumdar, A., 2011). Patient satisfaction with the healthcare services largely determines their compliance with the treatment and thus contributes to the positive influence on health. Satisfaction regarding the attitude of providers toward these services is expected to affect

treatment outcome and prognosis(Chandwani, H., Jivarajani, P., &Jivarajani, H., 2009).In case of health care services still word of mouth i.e. information regarding hospitals and services from family play an important role. Respondents give more preference to doctors' qualification, experience of doctors, reputation of hospitals long with extra facilities, available in the hospital (Dave, D. R., & Dave, R., 2014). While assessing the level of customer satisfaction is important, it is equally important for hospital management to work with the factors that explain customer satisfaction and it is even more important for them to work with a few crucial determinants, not all explanatory variables, so that limited resources are deployed in the most effective manner(Devija, P., Bhandari, S., &Agal, S., 2012). Provision of quality health care is a team work jointly carried out by physicians, nurses, patients and the state that should provide the laws. Doctors and nurses should show care and concern if even there is nothing they could do at that particular moment whilepatients have the responsibilities toward the provision of quality health service by teaming up with the health workers by complying with the prescribed treatment or rehabilitation procedures(Dhanda, K. K., &Kurian, S., 2012). With regard to the demographic characteristics of patients, age, healthstatus, and race have statistically significant effects on patients' satisfaction with their hospital care.As for health status, patients who perceive themselves to be healthier may be more satisfied with life generally, and this attitude carries over tospecific episodes of care(Young, G. J., Meterko, M., & Desai, K. R., 2013).

**Research objectives and hypotheses:** The research was carried out with the following objectives.

1. To study the factors affecting patient's selection of a Multispecialty Hospitals.
2. To determine the impact of various service dimensions (eg. Reliability, responsiveness, assurance etc.) on the quality of service at Multispecialty Hospitals.

The following hypotheses were empirically tested in this research.

1. Reliability dimension of service quality has a positive relationship with service quality for customers of Multispecialty Hospitals.
2. Responsiveness dimension of service quality has a positive relationship with service quality for customers of Multispecialty Hospitals.

3. Assurance dimension of service quality has a positive relationship with service quality for customers of Multispecialty Hospitals.
4. Empathy dimension of service quality has a positive relationship with service quality for customers of Multispecialty Hospitals.
5. Tangibles dimension of service quality has a positive relationship with service quality for customers of Multispecialty Hospitals.
6. Service quality at Multispecialty Hospitals has a direct positive effect on customer satisfaction.

**Research Methodology:**

The study was conducted on 60 randomly selected patients from seven multispecialty hospitals in Nashik city using a structured questionnaire. But since 10 questionnaires were incomplete and invalid they were not included and the final sample size was reduced to 50. The response rate was thus 83%. These samples were personally contacted and interviewed for data collection using a structured questionnaire. The questionnaire used for conducting the study was been designed meticulously by referring secondary data as well as taking suggestions from technical people in the field such as the doctors and other para-medicos. The questions incorporated are of two categories viz. open ended and close ended questions.

Close ended questions are of dichotomous and multiple responses type. Five point likertscale also has been used for getting more specificity in responses while some questions are based on a 10 point rating scale. 5% margin of error or confidence interval was considered while 95% is the confidence level considered. Data analysis was done using 0.5 standard of deviation.

**Data Collection:**

A structured questionnaire was personally administered to 50 randomly selected patients from 7 multispecialty hospitals. Out of 50 patients 32 were male while 18 were female patients. Only those patients were sampled who had a minimum of 3 day stay at the hospital so as to evaluate the perceptions about service quality and patient satisfaction. The patients were also contacted over telephone post discharge to record their experiences during



discharge. Out of 50 patients 15 were admitted for surgery, 1 for child birth and 34 had some other reasons for admission.

Following is the format of a 5 point likert scale used in the questionnaire.

**Table 1.**

Response	Rating
Strongly agree	1
Agree	2
Neutral	3
Disagree	4
Strongly Disagree	5

Here 1 corresponds a firm and strong belief in the statement made in the research tool.

2 correspond to a belief in the statement made in the research tool.

3 correspond to neutrality i.e. the respondent does not take any stand on the statement.

4 correspond to a disbelief in the statement made in the research tool.

5 corresponds a firm and strong disbelief in the statement made in the research tool.

Similarly some questions were based on a rating scale of 1 to 10 where 1 corresponds to the worst possible care while 10 corresponds the best possible care.

#### **Data Analysis and Interpretation:**

The data collected at hand was then analyzed at 5 percent alpha and 95 percent confidence level using SPSS 17. Reliability analysis was done to check the reliability of questionnaire. Factor analysis and Spearman's correlation coefficient are among the statistical tools used for analyzing the data.

Following is the frequency distribution of various attributes studied.

**Table 2. Overall rating of the hospital**

Service Quality Rating	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 7.00	1	2.0	2.0	2.0
8.00	24	48.0	48.0	50.0
9.00	24	48.0	48.0	98.0
10.00	1	2.0	2.0	100.0
Total	50	100.0	100.0	

Interpretation: Only 1 out of 50 patients gave the highest rating to the Service quality of hospital whereas 24 patients gave a rating of 8 and 9 each.

**Table 3. Recommendation of hospital to friends and family**

Recommendation	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Probably yes	6	12.0	12.0	12.0
Definitely yes	44	88.0	88.0	100.0
Total	50	100.0	100.0	

Interpretation: Out of 50 patients studied, 44 admitted that they would definitely recommend the hospital to others, while 6 said probably yes. Recommendation of the hospital to others signifies the patient satisfaction and quality of services.

### **Factors affecting patient selection of a Multispecialty Hospitals.**

Factors affecting patient selection of a Multispecialty Hospitals were studied by checking the level of agreement to various statements on a five point likert scale as shown in the table 4 below.

**Table 4:**

Statements	by Recommendation Family Physician		by Recommendation Family friends/Relatives		Proximity to home		with Association renowned Doctors		Good service quality & Economy		Insurance facility & Cashless service		Popularity for treating a particular disease		Promotion in media	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Strongly Disagree	7	14	15	30	32	64	0	0	2	4	24	48	2	4	37	74
Disagree	8	16	7	14	13	26	0	0	1	2	3	6	0	0	6	12
Can't say	0	0	3	6	0	0	2	4	7	14	16	32	0	0	5	10
Agree	8	16	11	22	3	6	12	24	25	50	3	6	10	20	2	4
Strongly agree	27	54	14	28	2	4	36	72	15	30	4	8	38	76	0	0
Total	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100

**Interpretation:** From the above table it is clear that

1. 80 percent of the patients preferred a multispecialty hospital recommended by their family physician.
2. 50 percent of the patients gave preference to a multispecialty hospital suggested by their family friends or relatives.
3. Proximity to one's own home was never a criteria considered by patients.
4. 96 percent of the patients gave preference to the doctors associated with a hospital.
5. 80 percent of the patients gave preference to the quality of service and economy.
6. Just 14 percent patients preferred a hospital in the list of insurance company, where cashless treatment was available.

7. 96 percent of patients preferred to rely on the popularity of a hospital for treating a particular health problem.
8. Just 4 percent of the patients preferred a hospital on the basis of its promotion in various media.

### Reliability Measure

Reliability test was carried out using SPSS 17 and the measure is given in the following table. The Cronbach Alpha value was more than 0.8 corresponding to an excellent value in the reliability test.

**Table 5. Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.810	.885	58

Source: Authors Research through SPSS 17

**Table 6. Summary of Hypothesis Testing**

Hypothesis	P value	Spearman's rho	Hypothesis accepted/rejected
H1: Tangibility dimension of SQ has a positive correlation with Service Quality.	0.000	0.611	Accepted
H2: Empathy dimension of SQ has a positive correlation with Service Quality.	0.000	0.708	Accepted

H3: Assurance dimension of SQ has a positive correlation with Service Quality.	0.000	0.483	Accepted
H4: Reliability dimension of SQ has a positive correlation with Service Quality.	0.000	0.462	Accepted
H5: Responsiveness dimension of SQ has a positive correlation with Service Quality.	0.000	0.711	Accepted
H6: Service quality at Multispecialty Hospitals has a positive correlation with customer satisfaction.	0.000	0.638	Accepted

Source: Authors Research through SPSS 17

### Data Analysis and Hypothesis Testing

The study identified various dimensions of Service Quality in relation to the services offered by 7 multispecialty hospitals in Nashik city. These dimensions are tangibility, empathy, assurance, reliability and responsiveness. Further these service quality attributes (or constructs) were assessed using a set of questions (or indicators) to the respondents.

The total score for each of the attribute was calculated and compared with the service quality ratings using spearman's correlation coefficient.

Following are the results of spearman's correlation coefficient and hypothesis testing.

**Table 7. Correlations**

	Ranks assigned to overall rating of the hospital	Ranks assigned to Tangibility score
Spearman's rho	1.000	.611**
Ranks assigned to overall rating of the hospital	.000	.000
Correlation Coefficient		
Sig. (1-tailed)		
N	50	50
Spearman's rho	.611**	1.000
Ranks assigned to Tangibility score	.000	.000
Correlation Coefficient		
Sig. (1-tailed)		
N	50	50

Source: Authors Research through SPSS 17

**Interpretation:** Spearman’s correlation coefficient value is 0.611 which indicates a positive correlation between Service Quality and tangibility. Also since  $p < 0.01$ , hypothesis that Tangibility dimension of SQ has a positive relationship with Service Quality is accepted.

**Table 8. Correlations**

	Ranks assigned to overall rating of the hospital	Ranks assigned to Empathy score
Spearman's rho	1.000	.708**
Ranks assigned to overall rating of the hospital	.000	.000
Correlation Coefficient		
Sig. (1-tailed)		

**Table 7. Correlations**

	Ranks assigned to overall rating of the hospital	Ranks assigned to Tangibility score
Spearman's rho	1.000	.611**
Ranks assigned to overall rating of the hospital	.	.000
Correlation Coefficient		
Sig. (1-tailed)		
N	50	50
Ranks assigned to Tangibility score	.611**	1.000
Correlation Coefficient		
Sig. (1-tailed)	.000	.
N	50	50
N	50	50
Ranks assigned to Empathy score	.708**	1.000
Correlation Coefficient		
Sig. (1-tailed)	.000	.
N	50	50

Source: Authors Research through SPSS 17

**Interpretation:** Spearman's correlation coefficient value is 0.708 which indicates a positive correlation between Service Quality and empathy. Also since  $p < 0.01$ , hypothesis that Empathy dimension of SQ has a positive relationship with Service Quality is accepted.

**Table 9. Correlations**

	Ranks assigned to overall rating of the hospital	Ranks assigned to Assurance score
Spearman's rho	1.000	.483**
Ranks assigned to overall rating of the hospital		
Correlation Coefficient	.483**	1.000
Sig. (1-tailed)	.000	.
N	50	50
Ranks assigned to Assurance score		
Correlation Coefficient	.483**	1.000
Sig. (1-tailed)	.000	.
N	50	50

Source: Authors Research through SPSS 17

**Interpretation:** Spearman's correlation coefficient value is 0.483 which indicates a positive correlation between Service Quality and empathy. Also since  $p < 0.01$ , hypothesis that Assurance dimension of SQ has a positive relationship with Service Quality is accepted.



**Table 10. Correlations**

	Reliability Rank	Ranks assigned to overall rating of the hospital
Spearman's rho	1.000	.462**
Reliability Rank		
Correlation Coefficient		
Sig. (1-tailed)	.	.000
N	50	50
Ranks assigned to overall rating of hospital	.462**	1.000
Correlation Coefficient		
Sig. (1-tailed)	.000	.
N	50	50

Source: Authors Research through SPSS 17

**Interpretation:** Spearman’s correlation coefficient value is 0.462 which indicates a positive correlation between Service Quality and Reliability. Also since  $p < 0.01$ , hypothesis that Reliability dimension of SQ has a positive relationship with Service Quality is accepted.

**Table 11. Correlations**

	Ranks assigned to overall rating of the hospital	Ranks assigned to Responsiveness score
Spearman's rho	1.000	.711**
Ranks assigned to overall rating of the hospital		
Correlation Coefficient	.711**	1.000
Sig. (1-tailed)	.000	.000
N	50	50
Ranks assigned to Responsiveness score		
Correlation Coefficient	.711**	1.000
Sig. (1-tailed)	.000	.000
N	50	50

Source: Authors Research through SPSS 17

**Interpretation:** Spearman's correlation coefficient value is 0.711 which indicates a positive correlation between Service Quality and Responsiveness. Also since  $p < 0.01$ , hypothesis that Responsiveness dimension of SQ has a positive relationship with Service Quality is accepted.

**Table 12. Correlations**

			Overall I am satisfied with the care extended by the hospital staff
	Overall rating of the hospital	Overall rating of the hospital	
Spearman's rho	Correlation Coefficient	1.000	.638**
	Sig. (1-tailed)	.	.000
	N	50	50
	Overall I am satisfied with the care extended by the hospital staff		
	Correlation Coefficient	.638**	1.000
	Sig. (1-tailed)	.000	.
	N	50	50

Source: Authors Research through SPSS 17

**Interpretation:** Spearman's correlation coefficient value is 0.638 which indicates a positive correlation between Service Quality and Customer Satisfaction. Also since  $p < 0.01$ , hypothesis that Service Quality at multispecialty hospitals has a positive relationship with Customer Satisfaction is accepted.

### **Conclusion and Discussion:**

The patients' satisfaction at any hospital can be heightened by rightly structuring the various elements of service quality. It has been found that each element of service quality has a positive correlation with the overall service quality which further positively influences the patient satisfaction. Multispecialty hospitals should therefore not only concentrate on any one criterion but plan holistically to improve the patient satisfaction. It has been found that the promotion done by multispecialty hospitals has got no impact of

creating patient satisfaction neither is a criteria for selecting a particular hospital. The quality of services and patient satisfaction is evident on the basis of the rating given by patients to hospital as well as on the basis of recommendation given by patients to others. The quality of services at any hospital depends not only on the medicos but the para-medicos as well. Hence to impart quality services it is necessary for the hospital administration to motivate and give proper training to them which will further help in creating a good brand image and patient loyalty.

**Bibliography:**

- Alhashem, A.M., Alquraini, H. and Chowdhury, R.I. (2011), Factors influencing patientsatisfaction in primary healthcare clinics in Kuwait”, *International Journal of Health Care Quality Assurance*, Vol. 24 No. 3, pp. 249-262.
- Babakus, E., &Mangold, W. G. (1992).Adapting the SERVQUAL scale to hospital services: an empirical investigation.*Health Services Research*, 26(6), 767–786.
- Al-Abri, R. Al-Balushi, A. (2014). Patient Satisfaction Survey as a Tool Towards Quality Improvement, 29(1), 3–7.
- Bautista, J. M. and Tangsoc, J. C. (2010). Service quality assessment in health care service for hospitals: A case study in the out-patient department of a private hospital. *Asia Pacific Industrial Engineering and Management System*. Retrieved from <http://apiems.net/conf2013/4001.pdf>
- Brahmbhatt, D. M., Baser, D. N., & Joshi, P. N. (2011). Adapting the Servqual Scale to Hospital Services: an Empirical Investigation of Patients’ Perceptions of Service Quality, 1(8), 27–42.
- Chakraborty, R., &Majumdar, A. (2011). Measuring consumer satisfaction in health care sector : the applicability of SERVQUAL. *Journal of Arts, Science & Commerce*, 2(4), 149–160.
- Chandwani, H., Jivarajani, P., &Jivarajani, H. (2009). Customer Satisfaction about Hospital Services Of A Private Medical College Hospital Of Gujarat , India, 8(1), 1–6.
- Dave, D. R., & Dave, R. (2014). A study on Service quality and customer satisfaction of selected Private hospitals of Vadodara City, 6(11), 7–12.

Devija, P., Bhandari, S., & Agal, S. (2012). Factors Influencing the Patients in Attaining Satisfaction by the Services Provided in the Hospital, *9519*, 1990–1993.

Dhanda, K. K., & Kurian, S. (2012). An Exploratory Study on Hospital 's Staff with their Patient Satisfaction, *2*(2), 197–202.

Young, G. J., Meterko, M., & Desai, K. R. (2013). Patient Satisfaction with Hospital Care Characteristics and Institutional Effects of Demographic, *38*(3), 325–334.

## **A Study on “Hospital Management Information System (HMIS)” with special reference to Gujarat model of managing hospital information**

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**Abstract:** A hospital management information system (HMIS) is an element of health informatics that focuses mainly on the administrative needs of hospitals. In many implementations, a HMIS is a comprehensive, integrated information system designed to manage all the aspects of a hospital's operation, such as medical, administrative, financial, and legal issues and the corresponding processing of services. The Hospital Management Information System has been envisaged to help health administrators to exercise an enhanced monitoring control over the functioning of government hospitals by using decision support indicators, to assist doctors and medical staff to improve health services with readily reference patient records and a work flow enabled less-paper process and to provide efficient and timely treatment to patients through automatic alerts during patient treatment cycle. Prior to the HMIS, the absence of a coherent management system made the monitoring of diversely located hospitals difficult. Senior level officials were unable to keep adequate track on usage of funds and to record development on various health indicators of the state. At the same time, hospitals were facing day to day operational challenges and inefficiency in patient handling services resulting in wastage of time, manpower and money and a nontransparent and unaccountable working environment. This paper aims to study the Gujarat model of managing hospital information and analyzes the impact of this model on the day to day functioning of district hospitals in India and details the challenges that this new automated system faces. Through the efforts of the Commissionerate of Health & Family Welfare and Medical Education, the Health & Family Welfare and Medical Education Department of GoG and Tata Consultancy Services Ltd., government hospital processes in India were reengineered.

**Key Words :** HMIS, Challenges to HMIS

## **Introduction**

A hospital information system (HMIS) is an element of health informatics that focuses mainly on the administrative needs of hospitals. In many implementations, a HMIS is a comprehensive, integrated information system designed to manage all the aspects of a hospital's operation, such as medical, administrative, financial, and legal issues and the corresponding processing of services. Majority of government hospitals in India operate on manual processes, which create major inadequacies in managing patient information and unnecessary delays in a patient's treatment cycle. At the same time, manual processes result in non-uniform and nonstandardized handling of hospital administration related logistical data, improper inventory management, fund management and allocation and present numerous challenges in conducting supervisory and monitoring activities. Such challenges in day to day hospital administration and monitoring activities reflect the crucial need to introduce standardized automated processes and tools for managing the vast amount of information in government hospitals and meet the demands of modern healthcare delivery. Recognizing this need, the Ministry of Health & Family Welfare and the Ministry of Communication and Information Technology have issued guidelines and are working jointly towards the creation of a national public health information infrastructure that will enable efficient capturing and dissemination of standardized health information and ensure the delivery of quality health services. Based on these guidelines, various states like Maharashtra, Delhi, and Gujarat etc. have devised their own unique IT based solutions to streamline hospital management. This paper aims to study the model of managing hospital information and analyzes the impact of this model on the day to day functioning of district hospitals in India and details the challenges that this new automated system faces. The Health and Family Welfare Department (HFWD) of the Government of Gujarat (GoG) launched the Hospital Management Information System (HMIS) in 2006, in order to improve the delivery of quality health services in the state. The HMIS has been envisaged to help health administrators have better monitoring and control over the functioning of government hospitals across the state by using decision support indicators, to assist doctors and medical staff to improve delivery of health services with readily reference patient records, a work flow enabled less-paper process and to create an efficient and timely patient treatment cycle through automatic alarms. Gujarat has 30 district

hospitals which are classified as minor and major hospitals. Nonteaching hospitals are termed as minor and teaching hospitals as major. In all, there are 24 non-teaching hospitals and 6 teaching hospitals. Prior to the HMIS, the absence of a coherent management system made the monitoring of these diversely located hospitals difficult. Senior level officials were unable to keep adequate track on the usage of funds and record development on various health indicators of the state. At the same time, hospitals were facing day to day operational challenges and inefficiency in patient handling services resulting in wastage of time, manpower and money along with the creation of a nontransparent and unaccountable working environment. With the HMIS, these shortcomings in the operations of government hospitals throughout Gujarat are being sought to be addressed. HMIS has enabled providing better care to patients by automating all the major functional areas and the entire gamut of hospital activities. It is also enabling the monitoring of pre-defined health indicators by generating reports and facilitating decision making by the hospital management as well as state level administrators. HMIS began as a pilot in four hospitals in 2006, by March 2008 the new system became live in all 30 government hospitals across the state.

#### Key Stakeholders

- Health & Family Welfare and Medical Education Dept,(HFWD): The HFWD provides healthcare facilities and administers public health policies in the state.
  - Commissionerate of Health & Family Welfare and Medical Education,
  - Administrative staff and doctors of district hospitals
  - Patients and their relatives
- Tata Consultancy Services (TCS) Ltd: The complete IT solution provider for deploying the HMIS in the state.

#### Process Flow

For the efficient management of government hospitals and to deliver quality health services, the HFWD required the deployment of an integrated information system which would provide a holistic view of the functioning of all processes in these hospitals. Hence the HMIS was conceptualized to provide standard clinical and diagnostic tools, hospital



management tools and a management information system for ensuring online review and monitoring of hospital performances. The Government of Gujarat selected TCS to deploy the HMIS in its district hospitals because of its in-depth domain expertise. The deployment of HMIS in Gujarat took place after need assessment study was carried out by TCS to determine the components and scope of the new system.

#### Designing and deploying the HMIS

Based on the results of the need assessment study, the TCS team developed a state-of-the-art IT based solution that addresses the entire gamut of hospital activities. The HMIS was developed on .NET technology with the SQL Server 2005 as the backend. Two TCS associates were placed for a period of one year at the six major teaching hospitals and one associate at the 24 minor hospitals to gradually deploy the new system, introduce and train the hospital administration and supervisory staff into using the HMIS for their day to day activities. In cases where one year was not sufficient, the tenure of the associates at the hospitals was extended to make the hospital staff well versed with the new technology.

#### Modules and usage of software

The HMIS software has 30 modules covering patient, clinical, administrative and ancillary services. These modules cover the entire gamut of hospital activities from patient registration, doctor allocation, medical prescription, clinical tests, inventory management, and hospital human resource management, waste management, running of national and state schemes and overall monitoring functions.

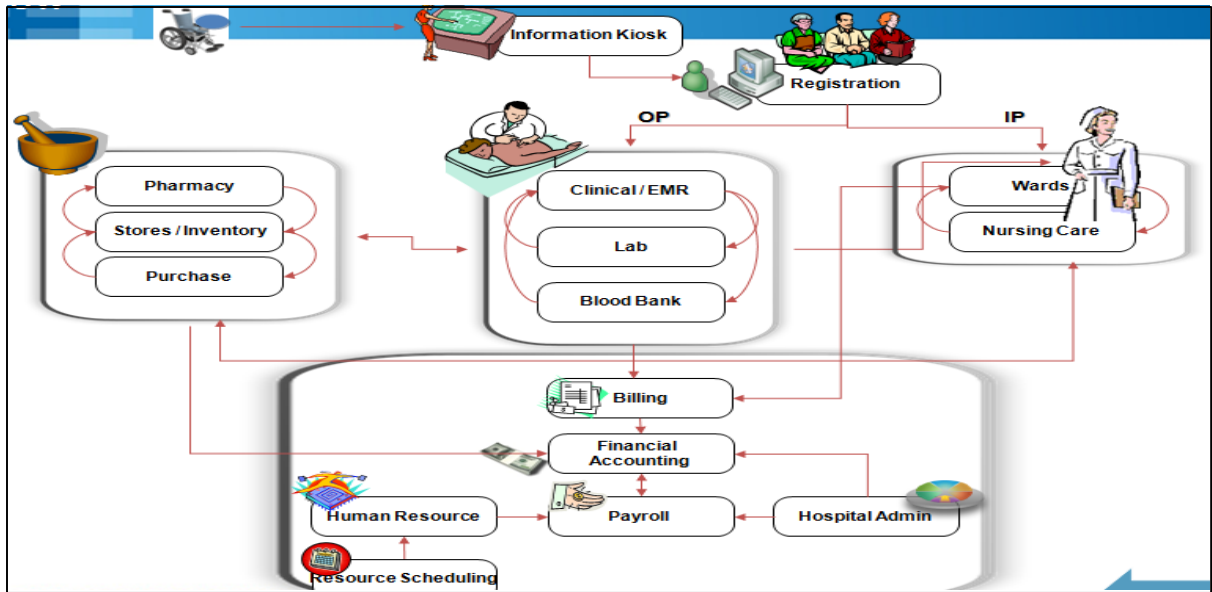
Functionalities Covered In HMIS Solution			
Patient Care Services	Clinical Services	Hospital Admin	Ancillary Services
<ul style="list-style-type: none"> <li>• Registration</li> <li>• Wards</li> <li>• Pharmacy</li> <li>• Billing</li> <li>• Patient Education</li> <li>• Information Kiosk</li> <li>• Nursing Care</li> </ul>	<ul style="list-style-type: none"> <li>• Clinical/EMR (Gynecology, Ophthalmic, Orthopedic, ENT, General Medicine, Pediatric, Surgery, Skin, Dental etc...)</li> <li>• Laboratory (Pathology, Microbiology, Bio Chemistry, Radiology)</li> <li>• Blood Bank</li> </ul>	<ul style="list-style-type: none"> <li>• Hospital Admin</li> <li>• Human Resource</li> <li>• Payroll</li> <li>• Financial Accounting</li> <li>• Stores/Inventory</li> <li>• Purchase</li> <li>• Complaints &amp; Redresses</li> <li>• Transportation</li> <li>• <a href="#">MIS Reports</a></li> <li>• EIS Reports</li> </ul>	<ul style="list-style-type: none"> <li>• National Programs</li> <li>• Linen Management</li> <li>• Equipment Maintenance</li> <li>• Resource Scheduling</li> <li>• Special Camp &amp; Training</li> <li>• Bio Medical Waste</li> <li>• Application Security</li> <li>• NABH (National Accreditation Board for Hospital &amp; Healthcare)</li> <li>• RKS (Rogi Kalyan Samiti)</li> </ul>

Services covered under the HMIS

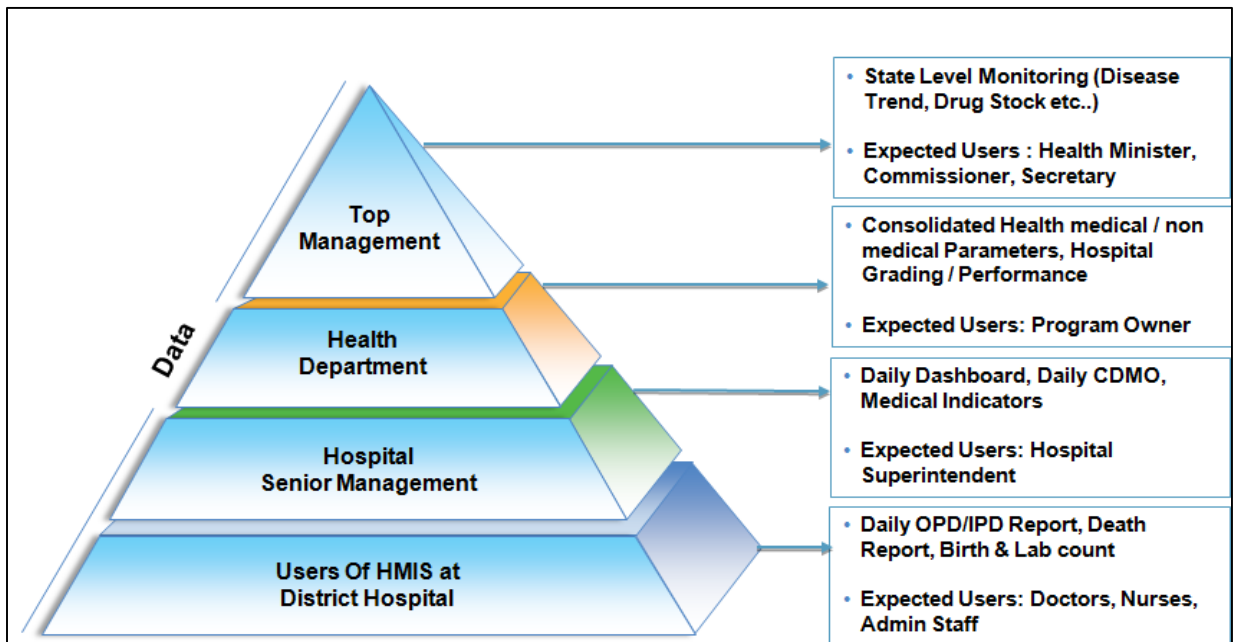
Source: Tata Consultancy Services

The main features of the HMIS software are:

- It is a web based and workflow based application
- It provides customized clinical data
- It allows doctors to follow advanced medical prescription patterns
- It enables faster diagnosis with ready- made templates
- It can be integrated with smart card and barcode technology
- It allows for extensive MIS based reporting facility
- It is built in compliance to international and national standards like ICD-10: International codification for diseases, HL7: Messaging standard, DICOM: Imaging standard
- It allows for defining authorization rights for critical transaction approvals in order to enhance security levels and prevent unauthorized access to the system
- It is open to high level of configuration and can be easily customized as per the need of the hour
- It is integrated with international hospital accreditation standards like National Accreditation Board for Hospitals (NABH)



Workflow of HMIS showing the day to day usage of the software Source: Tata Consultancy Services



Usage of HMIS enabled monitoring facilities at different levels Source: Tata Consultancy Services

**Monitoring and evaluation**

The major highlight of the HMIS software is its ability to provide detailed monitoring reports for various levels of hospital operations. The system generates customized reports as per the concerned monitoring authority's necessity. At the state level it generates various reports for the Commissioner of Health who has the flexibility to define his/her own MIS home page and request customized data. The software is also capable of generating visual alarms for clinical/non-clinical parameters. It provides a state level comparative map for cross measuring of the performance of various district hospitals on various parameters. It provides data related to the drug status in all district hospitals as well as highlights the disease trends. At the hospital Level it provides customized dashboard reports for officials as per need. It highlights administrative, medical, infrastructural and financial data. It provides information for grading a hospital's monthly performance. It also highlights the disease trend in a particular hospital, presents easily accessible patient statistics, system usage trend summary and provides customised reports for the Chief District Medical Officer as per his/her requirement. In this manner HMIS is enabling holistic monitoring of district hospitals in Gujarat both at the district and state level

**Capacity building**

TCS has deployed a champion team at district hospitals to train the administration and hospital staff in using and troubleshooting the software. This team consists of TCS associates and an IT person from the IT cell of the HFWD. TCS is constantly available for providing maintenance support to district hospitals and the HFWD and ensuring the smooth usage of the software

**Financial resources**

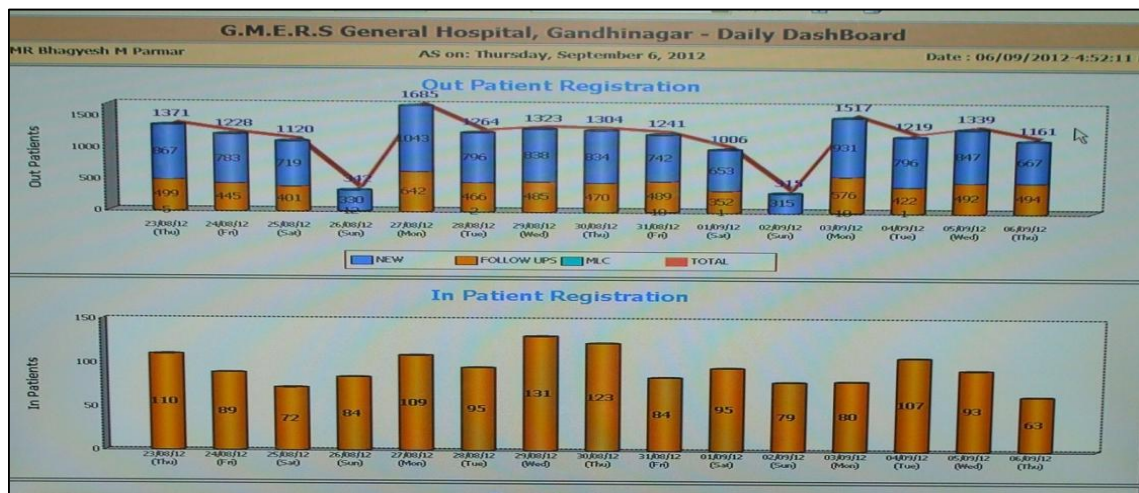
The HFWD spends three percent of its annual health budget on I.T. HMIS was financed out of this budget. The major costs of operation under HMIS include: software development, hardware deployment, training and networking of hospitals and software maintenance and up-gradation costs.

**Impact**

The HMIS is contributing towards the creation of a robust public healthcare system in Gujarat. It is benefiting state level monitoring authorities, doctors and hospital administration as well as patients.

On state-level monitoring authorities

The HMIS provides a state-wide holistic view of hospitals’ day-to-day functioning. Through its MIS the software facilitates monitoring of pre-defined health indicators and enables decision-making on key health issues in the state by making available real time data. Such easy and quick availability of various reports and data helps in identifying areas for improvement, studying disease trends and introducing a culture of efficient and transparent functioning across district hospitals in the state. It has replaced the tedious and inadequate manual reporting system with a highly efficient and reliable tech-based system which helps state level monitoring authorities perform their duties adequately.



Screen shot of the dashboard of the CDMO of Gandhinagar district hospital

Source: Oneworld Foundation India

**On doctors and healthcare staff**

The HMIS is improving day to day hospital operations. It has increased efficiency of doctors due to easy access to electronic medical records, templates for treatment recording cycle and ICD10 codification support. It has reduced time-to-serve patients and is enabling the provision of quality patient care. At the same time it has streamlined the daily functions

of various hospital staff, nurses, pharmacists etc. and in resulting in their efficient performances. In this manner, it is saving daily operational costs as well as unnecessary wastage of time and effort by putting in place standardized and uniform processes.



### **On citizens**

Patients at district hospitals are also reaping the benefits of this new technology based information system. Patients can now avail efficient health services at hospitals due to a digitized history of records, save time per visit, pay standardized charges and easily seek information about doctors through the information kiosk in the local language. These facilities help the patients coming to district hospitals avoid the general chaos that they would otherwise face and avail healthcare services in a streamlined and timely manner. In this manner, the pressure on the hospital administration is also reduced.

### **Challenges in Implementation**

#### **High cost of software development**

While HMIS holds vast potential in improving healthcare delivery and management, a major road block in its way is that the cost of developing the software is on the higher end. Given this, the deployment and improvement of the software over time has been highly challenging. This factor is also limiting the up-scaling of the system to the entire public healthcare system till the village level. While policy makers are convinced of the need to build a health IT infrastructure, the high costs involved often delay and limit their acting power.

#### Difficult to migrate from manual processes

The manual processes at work in government hospitals were installed decades ago, hence the staff as well as patients are used to these processes and are being unable to speedily cope up with the new system. The transition from manual processes to this IT based system is a long drawn and gradual process, which presents numerous challenges in adequately deploying and using the new system. Perhaps a way out would be to roll out the new system in phases and prepare both service providers and beneficiaries for the bigger changes to come.

#### Lack of tech-enabled medical personnel

The lack of IT friendly medical personnel is presenting several challenges in the successful running of the HMIS. Though data entry operators have been provided at select hospitals, they do not present a permanent solution as it involves incurring greater costs. Efforts have to be made to adequately and frequently train medical personnel and convince them about the need to use the IT based system and aware them about the advantages it can accrue.

#### Huge influx of patients

The large volume of patients coming to government hospitals makes the process of migrating to automated processes highly difficult. They do not have the patience to wait for registration and data entry and often fail to understand the functioning of automated processes; hence they adopt an uncooperative stance often resulting in disillusioning the hospital staff about the overall usage of the HMIS

All the above challenges can be addressed through proper awareness generation efforts and gradual roll-out of the software instead of a complete roll-out at a go.

#### **Sustainability**

Overcoming the above challenges can make the HMIS sustainable in the long run. While the initiative enjoys the support of service providers, a vast scope for improvement remains in terms of patient awareness generation. At the same time, the initiative needs to display its resilience to on-site challenges and adapt accordingly. Many components of the system

remain unused due to challenges mentioned above; perhaps a simpler version of the software needs to be developed instead of all encompassing software. Such a step can introduce both service-providers and citizens to the new system and prepare them over time for a much more detailed IT based system. Furthermore, a gradual roll-out will also ensure the financial viability of the system. It is crucial to bear in mind that technological change has to be superseded by stakeholder preparedness and participation in the change management process.

### **Potential for Replication**

HMIS currently runs only in district hospitals of Gujarat. There is a vast scope for up-scaling the initiative to cover the entire public health system in Gujarat. However, this up scaling process has to be based on developing solutions for the challenges being faced currently and deploying various components of the software in a step by step gradual manner. The experience of HMIS across district hospitals reflects that the successful introduction of such systems in a detailed health care set-up requires behavioural changes, which is a time consuming process. While technologically the system is sound, it has to be complemented with adequate change management training and awareness generation failing which the solution will prove to be of limited usage.

### **Conclusion**

Gujarat's HMIS solution presents various lessons to be learnt while deploying complete IT based systems in replacement of manual processes. Gujarat's experience highlights the importance of developing streamlined processes for hospital administration and displays the role that technology can play. At the same time it stresses on the importance of introducing behavioural changes parallel to technological change of any kind. Over the years, HMIS has received several awards which point towards the relevance and potential of the initiative. Some of these awards include: EDGE Award 2010, Bronze medal for HMIS, National E-governance award (2008-09), Scotch Challenger Award for HMIS (2007-08) and CSI Nilihent (Computer Society of India) Award for HMIS (2007-08).

### **References**



'Healthcare IT in India-An Optimistic Outlook'. Asian Healthcare & Hospital Management. Web. September 28. 2012. <[www.asianhbm.com](http://www.asianhbm.com)>

'Healthcare IT Spending in India is Expected to Grow to \$609.5 million in 2013'. Express Healthcare. Web. October 1. 2012. <[www.expresshealthcare.com](http://www.expresshealthcare.com)>

'Hospital Management Information System'. Gujarat Informatic Limited. Web. September 1. 2012 <[www.gujaratinformatics.com](http://www.gujaratinformatics.com)>

Kankhar. S.J. ' Indian Healthcare: Riding the information technology wave'. Frost & Sullivan. June 8. 2004. Web. September 1. 2012. <[www.frost.com](http://www.frost.com)>

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