

# AN EMPIRICAL STUDY ON MARKETING MIX STRATEGIES ON HEALTHCARE SERVICES IN A TERTIARY CARE HOSPITAL

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**Abstract**— Health sector is facing a rapid growth in India's booming Population. The present trend in setting up of hospitals is becoming a challenging job to establish better brand image in healthcare market as there is huge competition involved. The concept of marketing health care industries has become the buzzword in the last decade, as a result of dramatic increase in health care business worldwide. Hence in order to sustain the healthcare market, hospitals are adopting innovative marketing strategies. Hence this research paper was addressed the effective ways in formulating marketing mix strategies in selected tertiary care hospital in the field of healthcare Industry.

The aim of this research was, to carry out an empirical study on marketing mix strategies on healthcare services in a Tertiary Care Hospital in Chitradurga region. Initially pilot study was conducted in Basaveshwara Medical College Hospital (BMCH) and Research centre, Chitradurga and later in other hospitals like Shamnur Shivashankar Institute of Medical Sciences(SSIMS), Davanagere, Subbiah Institute of Medical Sciences(SIMS), Shivamogga. Based on the data collected structured survey questionnaire was framed and primary data was collected for analysis.

The data's were analyzed using SPSS to check the validity and reliability of tools used, namely: Cronbach's Alpha Test, KMO and Bartlett's Test. Subsequent to this, Chi – Square test and ANOVA was carried out to identify the significant impact and the relationship between marketing mix strategies and its effect on the healthcare services. The results shows that there is a significant relationship between patients's awareness on health concepts and the practice of health programs opted by the hospitals. It is noticed that, majority of the tertiary hospitals have a low tendency of formulating and implementing marketing mix strategies. Hence, it is suggested to promote health care awareness through Accredited Social Healthcare Activists(ASHA) by conducting health campaigns in Chitradurga region. It is also recommended to implement the micro schemes to increase the bed occupancy rate, improve continued medical educational programs to medical and nursing staff.

**Keywords**— Marketing Mix Strategy, Healthcare Market.

## I. INTRODUCTION

In most of the developed countries at global level, the healthcare industry accounts for almost 10% of their Gross Domestic Product (World Health Organization, Report 2012). There is significant rise in health spending in recent years as the population is booming, introduction of new technologies and better understanding of the services and benefits (patients are being well informed) offered by the healthcare industry. There is a need of dependency on other expert services apart for medical professionals like medical transcriptions, lab assistants, IT personnel, sales & marketing professionals, testers, quality assurance personnel etc. Healthcare is not only limited to hospitals but also includes medical devices and equipment's, pharma, insurance, biotechnology, alternate medicine, medical clothing etc. which are growing at a faster pace.

In India, healthcare has become one of the largest sectors in terms of both employment and revenue. People in India have become health conscious off late and spending on getting benefited by healthcare services available.(Indian Medical Foundation, Report 2012)Indian healthcare is divided into public and private sectors. Government runs (public) secondary and tertiary hospitals provide services in cities and Primary healthcare centers in rural regions whereas private players provide secondary, tertiary &

quaternary services in metros, tier-I and II cities. The healthcare market size is expected to reach US\$ 280 billion by 2020. (World Bank, 2012). There is a remarkable rise in spending on national's GDP. There is a huge potential of Foreign Direct Investment in Indian healthcare market and also Government has been introducing many policies to get the healthcare service to a next level. India is emerging as a new destination for availing healthcare facilities considering its low cost and advance technologies used by foreign medical tourists.

There are 20 district hospitals run by Government, 2,310 primary healthcare centers and around 600 private hospitals in Karnataka (excludes clinics). There is a scarcity of doctor to patient ratio and also for healthcare administration professionals. In spite of latest technology and methodology being used in Karnataka, there is need for appointment of staff of contractual basis. The Government is also planning to increase the facilities offered at 10 Government hospitals. Initiation has been taken to improve the infrastructure and deliver quality healthcare service to the public. On the other hand private hospitals are cashing in due to the lack of facilities available at public hospitals. They are luring the customers/patients by offering quality healthcare facilities at an easily affordable price. They have the state of art medical equipment's and offer a wide

range of diagnostic services. Also, Karnataka has been named top in the medical instruments value. There is proper promotion being made regarding the services to the past, present and future would be patients who are willing to avail the facility and services offered by the hospital. Hospitals are working smarter towards advertising, doing road shows on awareness, digital media, direct marketing and also word of mouth, creating health camps for people so that if they are satisfied they can visit the hospital directly. Also hospitals have set up the facility at an easy to approach place, where there is good connectivity so that people can avail the services of the hospital. Also, they are planning statically keeping in place the number of hospitals which are operating in the same geographical area and their areas of specialization available. Also recruitment of efficient people plays a major role. If the personnel are arrogant and rude towards the patients, then the overall perception of the patient about the hospital changes even though the facilities offered is of world class which is not a good sign and may even result in spreading the news of the bad services encountered and other patients will think twice before taking the services at that particular hospital. Therefore, it is very important to recruit and train personnel so that they can give quality services to the patients. Packaging of health care services is made such that, people enroll themselves thinking that they are getting more tests/services compared to other hospitals at an affordable price. It is the first thing that a patient or person who is willing to avail the services saw. It is attractive and create a very good first impression. Hospitals are trying to position themselves in a respectable manner in front of their patients and people who take their service. They are trying hard to get the patients turned into their loyal customers by analyzing their impression and how better they can expand the services already available to a greater height. Also proper care is taken if a patient is admitted to hospital right from admission, diagnosis, treatment and discharge.

## II. LITERATURE REVIEW

**Kevin D Dayaratna, (August 19,2013)** – In this literature review of the academic research suggest that- Healthcare in a competitive markets offer patients high quality care at reasonable price. The health benefits program of employees and Medicare part which serves as two demonstrative examples in today's competition of healthcare. To add proper reforms for further scope of competition in healthcare industry would be important for future growth and position as world's leader for healthcare.

**Agnes jarlier & Suzane charvert- protat (2000)** in this study , the researcher had conducted a observational study on marketing of health care" which can improve quality care and decrease hospital

costs? in " international journal for quality and marketing in healthcare". Their study revealed that, majority of hospitals carry out an aggressive marketing activities in form of corporate tie-up, trade and TPA tie up.

**Flora June A, Lefebvre R(1998)** had conducted cross sectional study on "Social health marketing and public health intervention in health education quarterly", through formative research methods and techniques, selected hospitals are quite satisfied with their existing product portfolio. Their study revealed that, maintaining good relation with outside doctors, by providing quality services, patient education and awareness programs about hospital through marketing.

**Bobeca Ana Amaria(2013)** In this study of academic research, the researcher has suggested "marketing plan in healthcare industry" analyses the healthcare markets in order to obtain better results serves on internal organization structure which shows the direct connection between marketing strategy, promotion strategy, quality of healthcare and market planning. Where these methodologies used to propose a model of analysis between 4 selected variables and structural equation model used which results as a base for a future analysis in health care marketing planning have a direct impact on quality of healthcare and market planning.

## III. OBJECTIVES

The brief objectives of this research are as follows:

1. To study the marketing mix strategy adopted by the BMCH hospital
2. To determine the various attributes pertaining to 7P's elements of marketing mix in BMCH hospital
3. To analyze the relationship between marketing mix strategy and their impact on healthcare service
4. To propose suitable recommendation for market sustainability for BMCH hospital

## IV. RESEARCH METHODOLOGY

1. Observational Study has been carried & secondary data has been gathered from BMCH hospital team members, to study the present marketing mix strategy adopted by them
2. Based on primary and secondary data 7P's of marketing mix and their various attributes has been identified.
3. The marketing mix strategies has been analyzed based on the input collected from validated questionnaire using SPSS tool.
4. Recommendations in the form of project report has prepared for the purpose of market sustainability in the service marketing for

healthcare service in hospital.

**V. RESEARCH GAPS**

1. Marketing mix is emerging in recent years and not accepted by all hospitals and distribution of the research questionnaire and the same method could not be used for all private sector hospitals.
2. Marketing mix has a very low tendency of patients and impact on type of hospital.
3. Marketing mix is adopted and is being used as a tool by corporate hospitals and no where else.
4. The quality of medical performance does not complete without the quality of the administrative performance through marketing mix
5. The basic limitation of behavioral sciences is attitude and attitude differs from one individual to another individual of perceptions.

**CONCEPTUAL FRAMEWORK**

Conceptual framework has been developed after considering the gaps identified from literature review Conceptual frame work mainly consists of 7P's of marketing mix used for marketing mix strategy for sustainability.

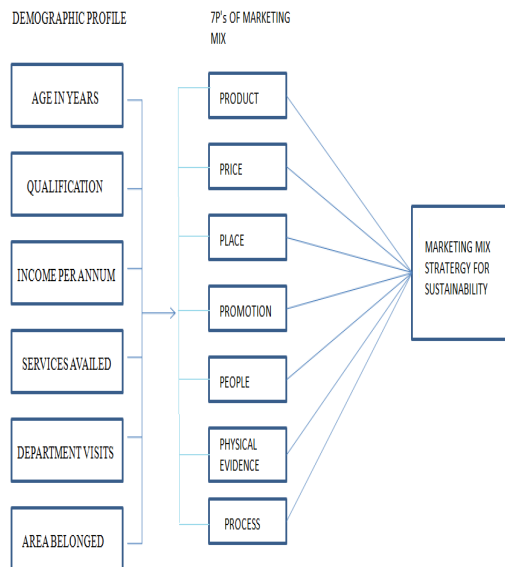


Figure 1. Conceptual Framework

**Product:**

Product offered by healthcare organization are intangible in nature (Kotler, 2005), hence product mix becomes very important for marketers. In order to provide effective and reliable services the hospital is fully equipped with various facilities rendering services in form of intangibility. i.e., Emergency services, Ambulance services, Diagnostics services, Pharmacy services.

**Price:**

Pricing is the most important factor and element in marketing mix (Gupta, 2006) in deciding for a particular treatment in a hospital. in case of general diseases it may not be required element since treatment is easily available, but when it comes to treatment of complex diseases people often opt for good hospitals irrespective of how much it costs. i.e, it depends complexity and availability of services.

**Place:**

Distribution of medicate services and location of the hospital plays a crucial role (Kumar, 2003), this focuses on services available to patients. It is an element which is associated with channels of distribution by services which can be delivered. i.e, adequate transport and communication facilities, pollution free place, Prime location

**Promotion:**

Hospital for promotion use either advertisement or PR or both after taking into consideration the target customers, media type, channels used and sales promotion. i.e, Personal and Impersonal, word of mouth, TV.

**People:**

Under marketing mix variable people includes all the different people involved in service providing process which includes all medical, nursing and supporting staff who are involved directly or indirectly in service delivery process.

**Physical evidence:**

Physical evidence plays an important role in healthcare services, as a core benefit patient seeks proper diagnosis and cure of the problem. It is the evidence of environment in which the service is delivered with physical or tangible commodities, where hospital and patients interacts

**Process:**

Process generally forms the different tasks that are performed by the hospital, the process factor is mainly dependent on the size of the hospital and kind of service it is offering. i.e, Out patient and inpatient.(Kapoor al.,2011)

**VII. RESEARCH DESIGN**

Place of research	Basaveshwara Medical College Hospital & Research Centre,Chitradurga
Target population	1102 IP
Sample Size	200
Reliability Test	Cronbach's Alpha Test
Tests Applied (SPSS)	KMO, Chi – Square Test, ANOVA, T-test, Factor Analysis

**VIII. DATA ANALYSIS**

Following are the tools used for Data Analysis:

1. KMO Test
2. Cronbach’s Alpha Test
3. Chi – Square Test
4. ANOVA
5. Factor Analysis

**8.1 Kaiser Meyer Olkin (KMO) AND Bartlett’s Test of Sphericity**

KMO is a Statistics, used to predict the sampling adequacy based on correlation and partial correlation. The KMO value varies from 0 to 1.0

The Bartlett’s test of Sphericity should be greater than 0.5. It is used to show the validity and suitability of the responses collected

**Table 1. KMO and Bartlett’s Test of Sphericity**  
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.919
Bartlett's Test of Sphericity	Approx. Chi-Square	8243.047
	df	2211
	Sig.	.000

The KMO value is 0.919, shows a excellent level of acceptance. The overall KMO value should be greater than 0.5 to proceed with the factor analysis

**Cronbach’s Alpha Test:**

Cronbach’s Alpha test is used to measure the internal consistency of reliability

**Table 2. Cronbach’s Alpha Test**

Cronbach's Alpha	N of Items
.959	71

The Alpha value is greater than 0.5, shows a very good level of acceptance, hence it is reliable.

**8.2. Chi-square Test**

**Table 3 Chi-square to test significant association between Connectivity of referral Hospital and help desk information**

	Value	Df	Sig.
Pearson Chi-Square	35.200	16	.004

Chi-square to test significant association Help desk information and Connectivity of referral Hospital

H<sub>0</sub>: Help desk Information does not have significant impact on the connectivity of referral hospital

H<sub>a</sub>: Help desk Information has significant impact on the connectivity of referral hospital

Since the P-value is less than the significance level (0.05), we reject the null hypothesis and accept the alternate hypothesis. Thus, we conclude that Help desk Information has significant impact on the connectivity of referral hospital

**Table 4 Chi-square to test significant association between Availability of Doctors, nurses and help Prime location of hospital**

	Value	Df	Sig.
Pearson Chi-Square	60.368	16	.000

Chi-square to test significant association between availability of doctors, nurses and help prime location of hospital.

H<sub>0</sub>: Availability of doctors, nurses does not have significant impact on the prime location of hospital

H<sub>a</sub>: Availability of doctors, nurses does has significant impact on the prime location of hospital

Since the P-value is less than the significance level (0.05), we reject the null hypothesis and accept the alternate hypothesis.

- Thus, we conclude that Availability of Doctors, nurses has significant impact on the prime location of hospital.

**Table 5 Chi-square to test significant association between Quick response from medical staff and services cater by hospital**

	Value	Df	Sig.
Pearson Chi-Square	18.430	16	.299

Chi-square to test significant association between Quick response from medical staff and services cater by hospital

H<sub>0</sub>: Quick response from medical staff does not have significant impact on the services cater by hospital

H<sub>a</sub>: Quick response from medical staff has significant impact on the services cater by hospital

Since the P-value (0.299) is greater than the significance level (0.05), we accept the null hypothesis and reject the alternate hypothesis.

- Thus, we conclude that Availability of Doctors, nurses has significant impact on the prime location of hospital.

**Table 6 Chi-square to test significant association between availability of micro schemes and pollution ,noise freelocation of hospital**

	Value	Df	Sig.
Pearson Chi-Square	36.694	16	.002

Chi-square to test significant association between availability of micro schemes and pollution, noise free location of hospital

H<sub>0</sub>: availability of micro schemes does not have significant impact on pollution, noise free location of hospital

H<sub>a</sub>: availability of micro schemes has significant impact on pollution, noise free location of hospital

Since the P-value (0.002) is lesser than the significance level (0.05), we reject the null hypothesis and accept the alternate hypothesis.

- Thus, we conclude that availability of micro schemes has significant impact on pollution, noise free location of hospital

**8.3 ANOVA**

**Table 7 Anova to study the relationship between Availability of Doctors, Nursing staff in time and Age Year, Qualification, IncomePA, Service availed**

Availability	df	f	Sig
AgeYear	199	7.258	0.003
Qualific	199	1.49	0.198
IncomPA	199	20.436	0.005
ServAval	199	9.088	0.011

ANOVA is used to study the relationship between Availability of Doctors, Nursing staff in time and Age Year, Qualification, IncomePA, Service availed

H<sub>0</sub>: Availability of Doctors, Nursing staff in time do not have significant impact Age Year, Qualification, Income PA, Service availed

H<sub>a</sub>: Availability of Doctors, Nursing staff in time has significant impact on Age Year, Qualification, Income PA, Service availed

Since the P-value is less than the significance level (0.05), we reject the null hypothesis, thus we conclude Availability of Doctors, Nursing staff in time has significant impact on Age Year, Qualification, Income PA, Service availed

Availability of Doctors, Nurses in time has a positive relation with Age Year, Income PA, Service availed

Availability of Doctors, Nurses in time has a negative correlation with Qualification.

**Table 8 Anova to study the relationship between Micro schemes available at Hospital and Age Year, Qualification, IncomePA, Service availed**

Microscheme	Df	f	Sig
AgeYear	199	2.462	0.47
Qualific	199	.608	.657
IncomPA	199	6.604	.000
ServAval	199	.991	.413

ANOVA is used to study the relationship between Micro schemes available at Hospital and Age Year, Qualification, Income PA, Service availed

H<sub>0</sub>: Micro schemes available at Hospital do not have significant impact Age Year, Qualification, Income, Service availed

H<sub>a</sub>: Micro schemes available at Hospital has significant impact on Age Year, Qualification, Income, Service availed

Since the P-value (0.000) is less than the significance level (0.05), we reject the null hypothesis, thus we conclude Micro schemes available at Hospital has significant impact on Age Year, Qualification, Income PA, Service availed

Micro schemes available at Hospital has a positive relation with Age Year, Income PA, Service availed

Micro schemes available at Hospital has a negative relation with qualification

**IX. SUGGESTIONS & CONCLUSION**

**SUGGESTIONS**

Based on the findings of the study, the following suggestions may prove handy for hospitals to improve themselves,

The more patient’s inflow which proportionally affects the overall income of the BMCH hospital. This can be achieved effectively by formulating marketing mix strategy and better the services offered at BMCH hospital.

BMCH Hospital should not only concentrate on giving medical help, but also should look into other aspects of marketing mix strategies which pertains to the attributes of 7 P’s such as ambience, affordability, cleanliness, soft – skills of the staff etc

As a future scope or investigation, post hoc tests like Shuffey’s test or Tukey’s test can be applied to check which of the two groups’s means differ significantly. These tests will too hint for the characteristics of the

population the sample represents and to allocate the availability of Doctors and Nurses staff accordingly.

**Product:** It is also recommended to implement the micro schemes to increase the bed occupancy rate, improve continued medical educational programs to medical and nursing staff.

**Price:** BMCH hospital should focus on building relationships concentrating on marketing mix strategy which pertains to every factor and make an endeavour to provide true value for money

**Place:** Micro Scheme facilities can be made easily available for the patients in rural areas through marketing strategies, without burden of unknown services from BMCH hospital

**Promotion:** It is noticed that, majority of the tertiary hospitals have a low tendency of formulating and implementing marketing mix strategies. Hence, it is suggested and recommended BMCH Hospital to promote health care awareness through Accredited Social Healthcare Activists(ASHA) for conducting health camps and campaigning in Chitradurga region.

**Physical Evidence:** BMCH Hospital must start paying attention consumers recovering over the failed services, in fact correctness should be made to deliver right service by implementing marketing mix strategies which sets the tone of hospital and its services

**Process:** BMCH hospital must be more on marketing research in terms of marketing mix which analyses the gaps and corrects immediately in the line of service it cater to.

### 9.1 LIMITATION OF THE STUDY

The study setting was restricted to Basaveshwara medical college and hospital, Chitradurga region and The respondents were limited to 200 samples only .

### CONCLUSION

In today's world, healthcare field has become prominent and is in boom. It is the responsibility of the manager/administrators to build the image of the hospital by providing quality services at an affordable

price. If there is more patient's inflow, it proportionally affects the overall income of the hospital. This can be achieved effectively by formulating marketing mix strategy and better the services offered at hospital. A good marketing mix strategy is one which makes sure that the services offered is satisfactorily accepted the consumers. Hospitals should not only concentrate on giving medical help, but also should look into other aspects of marketing mix strategies which pertains to the attributes of 7 P's such as ambience, affordability, cleanliness, soft – skills of the staff etc. Marketing mix should play a vital role in attracting even those consumers/ patients who are not economically sound to avail the services provided at the hospital.

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