The Impact of Marketing Mix Strategy on Hospital's Performance Measured by Patient's Satisfaction
(An Empirical Study on Santokba Durlabhji Memorial Hospital, Jaipur)

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Abstract

This research aims to study the impact of marketing mix strategy on patient satisfaction in santokba durlabhji memorial hospital, Jaipur. This research consists of the independent variables represented by marketing mix strategy components (namely health service, pricing, distribution, promotion, physical evidence, process, and personal strategies) and dependent variable which represented by patient satisfaction. In order to explore the relationship between independent and dependent variables, the quantitative method was used to collect primary data through a questionnaire, which was administered in the selected hospital's patients. All Patients' of the SDMH were targeted in this research. The research population of this research consists of 250 patients. The research sample in this research also consists of the total population accounted 250 patients. The researcher retrieves 190 valid research questionnaires. A purposive sampling strategy was used to choose the participants in this research.

Keywords: Marketing Mix Strategy, Patient Satisfaction, Hospitals

Introduction

The marketing mix strategy is considered one of the core concepts of marketing theory (Ziethaml and Bitner, 2000). In recent years, the popular version of this concept, that of McCarthy (1964) relating to the 4Ps: (product, price, place and promotion), has increasingly come under attack with the result that diverse marketing mix strategies have been put forward for different marketing contexts. The term marketing mix refers to a set of tools available to an organization to shape the nature of its offer to customers (Palmer, 2001). Kotler (2000: P15) defines the marketing mix as *"the set of marketing tools that the firm uses to pursue its marketing objectives in the target market"*.

A number of researchers (Booms and Bitners, 1981; Lovelock, 2001, Ahmad, 2007) have previously argued that the traditional 4Ps of the marketing mix model are inadequate for either the marketing of goods or for services marketing. Services are different from products, because of their characteristics; intangibility, inseparability, heterogeneity, and perishability. Earlier work of Booms and Bitner (1981) extend marketing mix for services from 4Ps to 7Ps adding three elements to the traditional model: people, physical evidence and processes. Customer satisfaction ranks high on the list of strategic priorities concerned with the achievement of long-term objectives (Day and Wensley, 1988). Customer satisfaction (Day and Wensley, 1988) reflects the effectiveness of the hospital in delivering value to its patients and other customers.

Patient satisfaction, a crucial piece in the puzzle of performance assessment, merits consideration as a performance measure appropriate for small hospitals. Patient perceptions of quality of care are increasingly central in conceptual and operational models of performance measurement (Lied and Kazandjian, 1999). In other words, customer satisfaction relates to the patient and his family, and includes various dimensions ranging from the "hotel" service aspects (such as food or parking services) to medical aspects such as morbidity, use of a range of antibiotics or nursing services.

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We develop a conceptual framework aimed to recognize marketing mix strategy components influence patient satisfaction in SDMH. The manuscript is organized as follows: Initial discussion begins with a deeper look at the marketing mix strategy of a health organization. The purpose of the current research is to explore the impact of services marketing mix strategy components hospital's performance based on patient satisfaction in SDMH.

Objectives of the Research

1. To define the components of the marketing mix strategy of the private sector hospital in SDMH.
2. To determine the elements, which constitute the hospital performance measured by patient satisfaction of the private sector hospitals in SDMH.

Table-1: Review of Literature

Study Reference	Objective	Sampling Method/ Sampling Size/ Data Source	Data Analysis Method	Findings
"T.Dheepa N.Gayathri P.Karthikeyan, (2015)"	• To know how to measure the patient's satisfaction and more critical of the quality of service they experience • To identify patient's satisfaction towards various dimensions that influence the quality of service in the government hospitals in the western districts of Tamil Nadu	• **SM:** Multistage sampling method • **SS:** 286 Respondents were chosen for the study • **DS:** Self completed questionnaire	• Percentage analysis • Factor analysis • Multiple regressions.	• It was noticed that patient's were disappointed and annoyed. And government hospitals need to improve on their performance.
"Zahra Khamda, Nazanin Pilevari (2013)"	• To measure service providers' perceptions and preferences towards quality of healthcare services • To present a model for ranking service quality among four Iranian hospital wards	• **SM:** Random sampling • **SS:** Health care service providers were chosen from different areas of Iran. • **DS:** 20-item scale questionnaire	• Preference Ranking Organization Method	Research findings conclude that a sharper way to demystify grades of service of any organization if done according to a ranking process would be more worth.

Study Reference	Objective	Sampling Method/ Sampling Size/ Data Source	Data Analysis Method	Findings
"S.SHARMILA, DR.JAYASREE KRISHNAN, (2013)"	• To present an analysis of the literature examine objective information concerning the subject of patient satisfaction, as it applies to the current medical practices.	• **SM:** Simple Random Sampling • **SS:** 320 respondents were chosen for the study • **DS:** Questionnaire	• Structural equation modeling (SEM)	Findings once again proved that in private hospitals doctors are sincerely concerned about the patients, doctors and nurses work more faithfully there, and private hospitals are leaving no stone unturned in order to provide comfort to their patients.
"Fethi Calisir, Cigdem Altin Gumussoy, Ayse Elvan Bayraktaroglu and Burcu Kaya, (2012)"	• To evaluate the effect of service quality dimensions on customer satisfaction. • To understand the usage of modified SERVQUAL model	• **SM:** Random Sampling method • **SS:** 292 Patients from different hospital types of turkey • **DS:** Survey item were adopted for questionnaire	• Regression analysis • Cronbach's alpha,"	"The effect of SERVQUAL dimensions on customer satisfaction and return intention" was undergone thoroughly for each type of hospital. Conclusions pointed out that empathy was the deciding ingredient regarding customer satisfaction for all hospital types showing that customers desire and welcome a customer-focused service concept.

Study Reference	Objective	Sampling Method/ Sampling Size/ Data Source	Data Analysis Method	Findings
"Johan de Jager and Therese du Plooy, (2011)"	• To study the in-patients and out-patients expectations, perceptions and satisfaction related to services.	• **SM:** Random sampling method • **SS:** 448 Patients were chosen from provincial hospital in Gauteng, South Africa. • **DS:** Personal Interview method	• Kolmogorov-Smirnov Test method • Kruskall Wallis test"	The findings pointed out that patients from stem to stern wish ultimate level of response, but only birdfeed of it is being given, resulting in failure on hospital part and dissatisfaction on customer part.
"Dr. Mamta Brahmbhatt, Dr. Narayan Baser, Prof. Nisarg Joshi (2011)"	• To explore the concept of service quality in a health care setting	• **SM:** Convenient sampling method • **SS:** 246 patients were chosen for the study • **DS:** Structured Questionnaire	• Mean score • Comparative analysis	The results revealed that the customers' perceptions did not exceed their expectations, as they were dissatisfied with the level of healthcare services rendered by both Government and private sector hospitals.

3. To determine the effects of the marketing mix strategy components on the hospital performance measured by patient satisfaction of the private sector hospital SDMH.

Hypothesis of the Research

• Service marketing mix strategy components have a positive and significant effect on the hospital performance measured by patient satisfaction in SDMH.

Research Methodology

The current study is based on primary and secondary data both for the collection of primary data the questionnaire was developed. The universe of the study was the people who were the patients of SDMH Jaipur, Rajasthan.

Data Collection Method: - Questionnaire

Sample Size: - The size of respondents is 250 out of which 190 were valid

Research Design: - Exploratory and Descriptive research design

Interpretation:

Table 3 shows the correlation matrix, which presents the value of the Pearson correlation coefficient between every pair of variables, the 1-tailed significance of each correlation and the number of cases contribution to each correlation (N=190).

Data Analysis and Interpretation

Table-2: Marketing Mix Strategy and Hospital Performance Measured by Patient Satisfaction (HPMPS)

Pearson Correlation	HPMPS	Health Service Strategy	Price Strategy	Distribution Strategy	Promotion Strategy	Physical Evidence	Process Strategy	Personal Strategy
HPMPS	1.000	0.520	0.061	0.074	0.300	0.389	0.391	0.217
Health Service Strategy	0.520	1.000	0.316	0.034	0.286	0.452	0.306	0.254
Price Strategy	0.061	0.316	1.000	0.236	0.272	0.183	0.328	0.220
Distribution Strategy	0.074	0.034	0.236	1.000	0.235	0.117	0.032	0.040
Promotion Strategy	0.300	0.286	0.272	0.235	1.000	0.220	0.361	0.313
Physical Evidence	0.389	0.452	0.183	0.117	0.220	1.000	0.495	0.338
Process Strategy	0.391	0.306	0.328	0.032	0.361	0.495	1.000	0.351
Personal Strategy	0.217	0.254	0.220	0.040	0.313	0.338	0.351	1.000

Interpretation:

With regard to the relationships among predictors, and the outcome as shown in Table-2, (5) out of (7) marketing mix strategy components had a significant positive correlation with the hospital performance measured by patient satisfaction that shows the influence of the marketing mix strategy components on hospital performance measured by patient satisfaction . Between the other predictor variables "marketing mix strategy components", and the outcome factor "hospital performance measured by patient satisfaction" Pearson correlation results ranged from (0.520–0.217) with the correlation of all 5 positive marketing mix strategy items being significant ($p<0.05$). The only two capability found not to show a significant positive correlation is the distribution strategy (r =0.07, p=0.191), pricing strategy (r=0.061, p=0.161) However, among all the predictors, health service strategy correlates best with the hospital performance measured by patient satisfaction in that it has highest positive correlation with it, which is also significant: (r =0.520, $p<0.05$). Therefore, it is likely that this variable will best predict and/ or explain the variance. The results of the analysis have demonstrated that the multiple regression model (table 3), which consists of the marketing mix strategy components has significantly improved our ability to explain the outcome variable.

$$Y = B0 + B1X1 + B2X2 + B3X3 + B4X4 + B5X5 + B6X6 + B7X7 + E$$

$$Y = 0.654 + 0.346X1 + 0.032X2 + 0.045X3 + 0.172X4 + 0.179X5 + 0.184X6 + 0.142X7 + E$$

Where:
Y= the predicted value on the hospitals performance
B0= the Y intercept, the value of Y when all Xs are zero

X1= Health service strategy
X2=Pricing strategy
X3=Distribution strategy
X4=Promotion strategy

Table-3: Marketing Mix Strategy and Hospital Performance Measured by Patient Satisfaction (HPMPS)

Sig. (1-tailed)	HPMPS	Service Strategy	Price Strategy	Distribution Strategy	Promotion Strategy	Physical Evidence	Process Strategy	Personal Strategy
HPMPS	-	0.000	0.161	0.191	0.000	0.000	0.000	0.005
Health Service Strategy	0.000	-	0.000	0.345	0.000	0.000	0.000	0.001
Price Strategy	0.161	0.000	-	0.002	0.001	0.014	0.000	0.004
Distribution Strategy	0.191	0.345	0.002	-	0.002	0.082	0.354	0.318
Promotion Strategy	0.000	0.000	0.001	0.002	-	0.004	0.000	0.000
Physical Evidence	0.000	0.000	0.014	0.082	0.004	-	0.000	0.000
Process Strategy	0.000	0.000	0.000	0.354	0.000	0.000	-	0.000
Personal Strategy	0.005	0.001	0.004	0.318	0.000	0.000	0.000	-
HPMPS	190	190	190	190	190	190	190	190
Health Service Strategy	190	190	190	190	190	190	190	190
Price Strategy	190	190	190	190	190	190	190	190
Distribution Strategy	190	190	190	190	190	190	190	190
Promotion Strategy	190	190	190	190	190	190	190	190
Physical Evidence	190	190	190	190	190	190	190	190
Process Strategy	190	190	190	190	190	190	190	190
Personal Strategy	190	190	190	190	190	190	190	190

X5=Physical evidence strategy

X6=Process strategy

X7=Personal strategy

B= the various coefficients assigned to the IVs during the regression

E = an error term.

Interpretation:

These coefficients as shown in table 4 are referred to as B values, which indicate the individual contribution of each predictor to the model. By replacing the B values into the above equation, the model becomes defined. In this way, the B values inform the relationship among the hospital

Table-4: Coefficient of the Multiple Regression Model/Hospital Performance Measured by Patient Satisfaction

Model	Unstandardized Coefficient		Standardized Coefficient	T		Sig.
	B	Std. Error	Beta			
Constant	0.654	0.456	-	1.435		0.154
Health Service Strategy	0.346	0.077	0.360	4.494		0.000
Price Strategy	0.032	0.058	0.124	1.583		0.0116
Distribution Strategy	0.045	0.086	0.086	0.994		0.322
Promotion Strategy	0.172	0.079	0.167	2.167		0.032
Physical Evidence	0.179	0.038	0.151	2.067		0.041
Process Strategy	0.184	0.099	0.158	1.867		0.042
Personal Strategy	0.142	0.080	0.040	0.524		0.031
Dependent Variable: patient satisfaction		**R2 =0.731**	**Adjusted =0.743**	**R2F =11.720**		**F=11.720 P<0.05**

performance measured by patient satisfaction and the influences of the marketing mix strategy. If the value is positive, this indicates a positive relationship between the predictor and the outcome, whereas a negative coefficient represents a negative relationship. Viewing the B value under the first column, health service strategy has the highest positive relationship with the outcome variable hospital performance measured by patient satisfaction (B=0.346).Non similarly, pricing strategy (B=0.032), while distribution strategy has no significance (B= 0.045). Whereas the other four components (promotion, physical evidence, process, and personal strategies) are significantly related to the hospital performance measured by patient satisfaction (P-value=0.172, 0.179, 0.184, 0.142) respectively.

Conclusion

- **Health Service Strategy:** - It is found that the majority of SDMH provides a comprehensive range of health and medical service classes to facilitate the diverse needs and wants their target market. Developing and introducing new health services is applied in SDMH. The importance of introducing and developing new health services is twofold. First it is a competitive tool for the hospital's growth and continuations, and for enabling the hospital to meet needs and wants for

the largest possible market. Second, in light of the updated medical technology worldwide, it helps hospitals to gain opportunities that lead to increased market share and penetrate new markets. The research data indicates that patient services is a fundamental factor in a health service strategy and a crucial part of the marketing strategy, whereas the SDMH focus on customers' (patients) confidential cases.

- **Pricing Strategy:** - The quantitative data analysis in SDMH indicated that there are disparate pricing strategies are frequently adopted within the hospitals. These strategies involve pricing based on government regulations, and the varying costs, which the SDMH incur. The pricing policy based on competition in the Jeddah health market and price discrimination according to market segment was utilized by SDMH.

- **Distribution Strategy:** - It is found that the majority of SDMH provide an hourly service availability to match the non-programmed emergency and accident cases. The research data indicates that SDMH have no branches in different provinces and cities in Jaipur. This may be due to a high cost of establishment or/ the concentration policy in one branch. As such, most of SDMH do not have a mobile clinic.

- **Promotion Strategy:** - The qualitative data analysis suggests that the most prominent method of promotion is by "word-of-mouth" communication where an existing patient recommends the hospital services to other customers in similar or different cases of illness. The word-of-mouth communication, personal selling and customer personal contact, and public relation, and publicity for promoting health services were used by SDMH. The rationale behind using word-of-mouth communication in promoting health services is that the health service has unique complex characteristics especially the aspect of intangibility. Medical and administrative staff believes that the greatest means of promoting health service is by word-of-mouth. Furthermore, promoting health services is more problematic compared with other services or products. The rationale underlying use of public relations and publicity (free medical days) to enhance the hospitals image in promoting their health service is that hospitals need to build trust and improve the reputation of their health services. The low use of other methods of promotion (advertising) remains a matter of debate among the health services in Jaipur.

- **Physical Evidence Strategy:** - The research data indicates that customer service is a fundamental objective in designing the physical evidence strategy of SDMH by which it can create a customer-friendly atmosphere and comfortable access to the health services. Therefore, the customers of hospitals face an altogether different psychological situation compared to customers of other service organizations, which need additional effort to help them reduce the degree of anxiety experienced by concentrating on the physical evidence atmosphere facilities.

- **Health Process Strategy:** - The research data reveals that the health/medical services delivery process strategy is the most sensitive and critical activity that SDMH, as with any hospital around the world concentrates upon to deliver their services on time. Most medical cases do not accept any delay in treatment. SDMH also recognized satisfaction among their customers during delivering health services for two reasons: first, the social responsibilities, and second the great competition extent in the health care market.

- **Personal Strategy:** - The data indicates that SDMH are generally improving their personal ability to perform their service role and to maintain a competitive level. They further concentrate on their staff's appearance because of the extreme contact occurring between staff and hospital patients. Serving customers in hospitals are critical activities that may earn customer satisfaction- or approbation, so excellent standards are essential within such an environment.

Limitations of the Study

- This research has been conducted in a single service industry, the health service industry in Jaipur, exclusively in the Santokba Durlabhji Memorial Hospital, which implies that the generalisability of the research results are limited to the SDMH in Jaipur business environment context, and cannot be generalized to other health services markets either in developed or developing countries.

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