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Marketing Mix Strategies and Hospital Performance-In Case of Wolaita Sodo University, Otona Teaching & Referral Hospital

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Abstract- This research inspects the shock of marketing mix strategies on patient satisfaction at Wolaita Sodo University teaching and referral hospital. It consist dependent and independent variables. The dependent variable called hospital performance which measured by patient satisfaction. The independent variables are familiar with the culture the research case which includes; promotion, price, physical evidence, process, people, access/place/distribution and service of health. The research used quantitative data to explore its relationship by having primary data through a questionnaire, which was administered in the Otona teaching and referral hospital. The researcher targeted the hospital's professionals who were working at radiology, gynecology, pharmacy, eye clinic and other specialist's sections. The research population of this research consists of 243 workers/specialists from Otona hospital in South Nation Nationalities People Region (SNNPR). The research sample in this research also determined 56 according to (Kothari 2004) workers. The researcher retrieves 52 valid research questionnaires. A purposive sampling strategy was used to choose the participants in this research.

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Abstract- This research inspects the shock of marketing mix strategies on patient satisfaction at Wolaita Sodo University teaching and referral hospital. It consist dependent and independent variables. The dependent variable called hospital performance which measured by patient satisfaction. The independent variables are familiar with the culture the research case which includes; promotion, price, physical evidence, process, people, access/place/distribution and service of health. The research used quantitative data to explore its relationship by having primary data through a questionnaire, which was administered in the Otona teaching and referral hospital. The researcher targeted the hospital's professionals who were working at radiology, gynecology, pharmacy, eye clinic and other specialist's sections. The research population of this research consists of 243 workers/specialists from Otona hospital in South Nation Nationalities People Region (SNNPR). The research sample in this research also determined 56 according to (Kothari 2004) workers. The researcher retrieves 52 valid research questionnaires. A purposive sampling strategy was used to choose the participants in this research. The results confirm significant differences in the influence of the marketing mix strategy have varied significant and insignificant influence on the patient satisfaction. According the formulated SPSS version 20 model analysis, the seven out of seven variables are significant ($p < 0.05$). The research contributes to the scholastic and practical knowledge as being to investigate empirically the impact of the marketing mix strategy on patient satisfaction. Furthermore, it recognizes the important role of marketing in improving the patient satisfactions, integrates, refines and extends the empirical work that conducted in the field hospital performances at health services marketing sector in Wolaita Sodo University Teaching and Referral Hospital. This research makes obtainable useful guidelines for further and prospect research possibilities such as exploring the pressure of the marketing mix strategy influence on other hospital performance sectors.

Keywords: marketing mix strategies, otona hospital, patient satisfaction, hospital performance.

I. INTRODUCTION

Marketing mix strategies focuses on the fundamental practices that every company has to carry out - identifying customers, researching their needs and preferences, analyzing factors that influence their purchasing decisions and persuading

them to buy products and services from you rather than a competitor.

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 perish -ability.

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).

The researcher developed a conceptual framework aimed to recognizing marketing mix strategy components that influence patient satisfaction at Otona hospital. The purpose of this research is to explore the impact of services marketing mix strategy components on hospital performance based on patient satisfaction in Wolaita Sodo University public referral hospital.

II. OBJECTIVES OF THE STUDY

a) General Objective

To find out the effect of marketing mix Strategy on hospitals Performance based on Patient Satisfaction.

b) Specific Objectives of the study

The researchers specifically have attempted the following specific objectives.

- To define the components of marketing mix strategies of the Otona hospital.
- To identify the most influential marketing mix strategies to the hospital.
- To examine which strategies satisfies the needs of the patients.

III. RESEARCH METHODOLOGY

The actual relationships that may exist between independent and dependent variables as stated in the research hypotheses part of the literature review that, the researcher used descriptive analytical research. The hypotheses were formulated inductively from the researcher's observation and from the literature. The

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researcher factors constitute marketing mix strategies components of the Otona hospital, so that the description is needed. In addition to this, the researcher used different test of model for analytical parts. It helps to examining the relationship between the marketing mix strategy components of the Otona hospital and patient performance which measured by patient satisfaction in order to explore how far hospital Very Important Person's perceive these factors when making their decisions regarding the marketing strategies.

a) Type of Research

The researcher used Cross-sectional research survey which Otona health market included. It is a single cross-sectional design in which the collection of information from the research population and respondents performed once only (Palmer, 2001). This research was conducted at referral hospitals; data was collected through research questionnaire from managers and specialists of the hospital.

b) The Research Population

The research population consists from Otona hospital which counted 243 sample of population. They are experts (professionals) who are working there for long period. In addition to this, the research population consisted of all level professionals (radiologists, OPD workers, pharmacists, nurses, eye clinic, dentists, etc in hospital. Therefore, all purposefully selected, professionals called invited to participate in the research survey, the number accounted the sample size of 56, and this research used a purposive sample. One method that taken was, the value of $p = 0.5$ in which case 'n' will be the maximum and the sample will yield at least the desired precision. In order to determine the sample size from finite population the following sample size determination formula was used:-

$$n = \frac{z^2 \cdot p \cdot q \cdot N}{e^2 \cdot (N - 1) + z^2 \cdot p \cdot q}$$

Where:-

- p = sample proportion/ assumed as defect , $q = 1 - p$
- z = the value of the standard variant at a given confidence level and to be worked out from table showing area under Normal Curve
- N = total population
- n = size of sample (Source p. 179, Kothari Research Methodology 2nd Revised Edition 2004).

c) Data Collection Methods

The purpose of gaining a comprehensive picture of the issues in research questions, quantitative approach was used to this research. It is used structured questionnaire techniques to collect primary data. The research questionnaire was used as primary data collection method. The components of marketing

mix is (physical evidence, service of health, promotion, place/distribution/access, people, pricing, and process) and hospital performance namely (patient satisfaction) will measured on 5-point Likert- scale ranging from 5 (strongly agree) to 1 (strongly disagree).

IV. HYPOTHESIS

This research has addressed the most familiar of marketing mix strategies on the base of hospital sectors performances which measured on patient satisfaction; it helped easily to understood, fed data, and to formulate. Besides these, it has hypothesized as in the literature part:- Hypothesis has tested under Coefficient of the multiple regression models to know hospital performance that measured by patient satisfaction.

H1: There is an association between hospital performances and independent variables under consideration. The general model used was:-

$$Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + B_6X_6 + B_7X_7 + E$$

Where:-

Y= the predicted value on the hospitals performance, B_0 = the Y intercept, the value of Y when all Xs are zero, X_1 = Health service strategy, X_2 =Pricing strategy, X_3 =place/access/Distribution strategy, X_4 =Promotion strategy, X_5 =Physical evidence strategy, X_6 =Process strategy, X_7 =Personal strategy, B= the various coefficients assigned during the regression parameter that relating to the mean value of y and E = an error term that describes the effects on y of all factors other than the value of the independent variables x_1 - x_7 .

V. DATA DISCUSSION BY USING DESCRIPTIVE ANALYSIS

Table 1 : Marketing mix strategies and hospital performances which measured by patient satisfaction at Otona Hospital

Correlations									
		HPMPS	x1	x2	x3	x4	x5	x6	X7
Pearson Correlation	HPMPS	1	0.53	0.454	0.422	0.368	0.429	0.524	0.685
	x1	0.53	1	0.476	0.433	0.493	0.399	0.71	0.639
	x2	0.454	0.476	1	0.446	0.253	0.464	0.446	0.443
	x3	0.422	0.433	0.446	1	0.593	0.563	0.487	0.612
	x4	0.368	0.493	0.253	0.593	1	0.598	0.538	0.613
	x5	0.429	0.399	0.464	0.563	0.598	1	0.596	0.512
	x6	0.524	0.71	0.446	0.487	0.538	0.596	1	0.769
	X7	0.685	0.639	0.443	0.612	0.613	0.512	0.769	1
Significances' at (one-tailed)	HPMPS	.	0.000	0.000	0.001	0.004	0.001	0.000	0.000
	x1	0.000	.	0.000	0.001	0.000	0.002	0.000	0.000
	x2	0.000	0.000	.	0.000	0.035	0.000	0.000	0.001
	x3	0.001	0.001	0.000	.	0.000	0.000	0.000	0.000
	x4	0.004	0.000	0.035	0.000	.	0.000	0.000	0.000
	x5	0.001	0.002	0.000	0.000	0.000	.	0.000	0.000
	x6	0.000	0.000	0.000	0.000	0.000	0.000	.	0.000
	X7	0.000	0.000	0.001	0.000	0.000	0.000	0.000	.
n(sample size of populations)	HPMPS*	52	52	52	52	52	52	52	52
	x1	52	52	52	52	52	52	52	52
	x2	52	52	52	52	52	52	52	52
	x3	52	52	52	52	52	52	52	52
	x4	52	52	52	52	52	52	52	52
	x5	52	52	52	52	52	52	52	52
	x6	52	52	52	52	52	52	52	52
	X7	52	52	52	52	52	52	52	52

Source: Own Computation, 2016

HPMPS*=Hospital Performance Measured by Patient Satisfaction

This part focuses on given that a descriptive analysis of the research data. The discussion of the respondents' dimensions offers a clear perspective of the hospital workers/experts/specialists investigated in this research and a better understanding of the analysis in general.

a) Research Variable Analysis

The general hypothesis for this section is "All marketing mix strategy components have a positive and

significant effect on the hospital performance which measured by patient satisfaction of Otona teaching and Referral hospital in Wolaita Zone in SNNPR, Ethiopia". Table1 shows the correlation matrix, which presents the value of the Pearson correlation coefficients between every pair of variables, the 1-tailed significance of each correlation and the number of cases contribution to each correlation (n=52).

The relationships among predictors and the outcome, seven out of seven marketing mix strategy components had a significant positive correlation with the hospital performance which 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 0.53–0.685 with the correlation of all seven positive marketing mix strategy items being significant ($p < 0.05$).

There is no independent variable that shows insignificant correlation.

Among all the predictors, personal strategy correlates best with the hospital performance measured by patient satisfaction in that it has highest positive correlation with it, which is also significant: ($r = 0.53$, $p < 0.05$). Therefore, it is likely that this variable will best predict and explain the variance.

The results of the analysis have demonstrated that the multiple regression model (table 2), which consists of the marketing mix strategy components has significantly improved the ability to explain the outcome variable.

Table 2 : Coefficient of the multiple regression model/hospital performance measured by patient satisfaction

Model	Un standardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Co linearity Statistics	
	B	Std. Error				Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
(Constant)	-1.373	0.83		-1.654	0.105	-3.046	0.3					
x1	0.356	0.281	0.202	1.269	0.211	-0.209	0.921	0.53	0.188	0.131	0.422	2.372
x2	0.24	0.264	0.12	0.91	0.368	-0.292	0.773	0.454	0.136	0.094	0.615	1.627
x3	-0.071	0.184	-0.057	-0.383	0.704	-0.442	0.301	0.422	-0.058	-0.04	0.483	2.068
x4	-0.207	0.209	-0.154	-0.987	0.329	-0.629	0.215	0.368	-0.147	-0.102	0.442	2.263
x5	0.317	0.269	0.184	1.18	0.244	-0.225	0.859	0.429	0.175	0.122	0.44	2.271
x6	-0.331	0.31	-0.21	-1.069	0.291	-0.955	0.293	0.524	-0.159	-0.111	0.277	3.608
X7	1.011	0.271	0.699	3.726	0.001	0.464	1.557	0.685	0.49	0.386	0.304	3.287

Source: Own Computation, 2016

The coefficients as shown in table 2 are referred to as B values, which indicate the individual contribution of each predictor to the model. By replacing the B

values into the $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \beta_7X_7 + e$ equation, the model becomes defined by the example of the following equation:-

$$y = -1.373 + 0.356x_1 + 0.24x_2 + -0.071x_3 + -0.207x_4 + 0.317x_5 + -0.331x_6 + 1.011x_7 + e$$

$$= -1.373 + 0.356(4.625) + 0.24(4.67) + -0.071(4.43) + -0.207(4.17) + 0.317(4) + -0.331(4.375) + 1.011(4.5) + 0.05$$

$$= 4.2$$

$$y = 4 \approx 4.2$$

According to the actual /first/ observation of appendix 2 and (table 2) β row data, the patient satisfaction at Otona teaching and referral hospital represented by 4 and this satisfaction figure is almost similar than that of the point prediction called 4.27. This implies that and the study predict the intervals in multiple regression to determine that there is strong evidence to the relationship between independent and dependent variable that the hospital heads should work hard on patient satisfaction.

The B values inform the relationship among the hospital 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.

The B values under the first column, personal strategy has the highest positive relationship with the outcome variable hospital performance measured by patient satisfaction ($B = 1.011$). All the research components of marketing mix strategies (distribution/ place/access, price, promotion, physical evidence, process and personal strategies) are significantly related to the hospital performance measured by patient

satisfaction (P-value=0.001, 0.000, 0.004, 0.001, 0.000, 0.000, 0.000) respectively.

VI. CONCLUSION

Marketing focuses on the fundamental practices that every company has to carry out - identifying customers, researching their needs and preferences, analyzing factors that influence their purchasing decisions and persuading them to buy products and services from you rather than a competitor. All this requires a strategy that is coordinated, considered and realistic in terms of making the most effective use of the resources and budgets available. Planning a marketing strategy starts with a detailed and ongoing investigation of the market and its sub-markets or segments. Companies look at the social, political, economic, cultural and technological trends which are shaping the market, their own position within it and the resources they can marshal to change or influence it (CIM 2015).

When specific goals have been defined, alternatives to the status quo can be discussed, and ways to achieve those alternatives can be chosen. The marketing strategy is then formalized within a specific plan of action, which is constantly revised and updated, and the marketing campaign progresses (The Chartered Institute of Marketing (CIM)).

Marketing mix strategy is a necessary strategy in service organizations to ensure the organizations' success. It is vital to marketing the hospitals in the target market and acts on behalf of the whole hospital or with coordination in dealing with hospital performance measured by patient satisfaction. These are the factors that the hospital is attempting to win the marketing strategy application and the services delivered. This research argues that marketing mix strategies do not evolve simply by chance, but through a planned effort by the hospital management team. The link between these factors and the marketing mix strategy components was based on findings from the literature (structured questionnaire), and observations. The framework suggests that marketing mix strategy as a core construct in this research receives its vital role through the effect of marketing mix strategy on hospital performance measured by patient satisfaction. As a result, the argument of this study is that the marketing mix strategy is a mediating factor that relies on hospital performance measured by patient satisfaction. Furthermore, marketing mix strategy itself leads to some impact on the hospital, including hospital performance measured by patient satisfaction.

VII. RECOMMENDATIONS

Depending on the finding of the study, the researchers forwarded the following recommendations:

a) *Effective Health Service Strategy*

The Otona hospital provides a comprehensive range of health and medical service to facilitate the diverse needs and wants of in their target market.

The hospital applied new health services in addition to developing and introducing its service. The importance of introducing and developing new health services has major functions like being competitive on the hospital's growth and continuations, enabling the hospital to meet needs and wants for the largest possible market and updating 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 are evident by the value of positive Pearson correlation and significant at one tailed test with p-value of 0.000. Therefore, it inferred as there is relationship with service strategy that the hospital heads focus on feed back, latest service, luckless time, and diverse needs and wants of patients' confidential cases.

b) *Pricing Strategy*

Most patient got medical laboratory test and pay to it. But the specialists' referring and telling where the medicine is and its costliest price. The quantitative data analysis at the Otona hospital indicated that there are different pricing strategies are frequently adopted in the hospital. These strategies involve pricing based on government regulations, and the varying costs, which the Otona hospital patients incur. The pricing policy based on competition in the Otona health market and price discrimination according to market segment was utilized by Otona hospital.

The research data indicates that pricing strategies are evident by the value of positive Pearson correlation and significant at one tailed test with p-value of 0.000. So that the hospital heads fix these problems by pricing them according the medicine and drug low of the country besides the farmers economy. In addition to these, they should most frequently adopted pricing policy is related to the government regulation.

c) *Access/Place/ Distribution Strategy*

It is found that hospital provides an hourly service availability to match the non-programmed emergency and accident cases. The research data indicates that hospital has no branches in different zone and cities in SNNPR. This may be due to a high cost of establishment and concentration in one branch. As such, most of the hospital does not have a mobile clinic.

The research data indicates that the accessibility strategies are evident by the value of positive Pearson correlation and significant at one tailed test with p-value of 0.001. So that, the hospital heads should work on branches, e-health services, telemedicine, open consultation bureau, give mobile clinic, should put almost all medicine types in their store

instead of referring and to match the non-programmed emergency and accident cases.

d) *Promotion Strategy*

The research data indicates that the Promotion strategies are evident by the value of positive Pearson correlation and significant at one tailed test with p-value of 0.004. 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 most Otona hospital. 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 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 publicity and 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. Whatever the hospital is the only public University hospital, the heads should work on electronic media advertising, should sponsor charities and seminars to build the image of the hospital. In addition to these, is recommendable the latest technology like direct mail.

e) *Physical Evidence Strategy*

The research data indicates that Physical Evidence Strategy is evident by the value of positive Pearson correlation and significant at one tailed test with p-value of 0.001. The patients' service is a fundamental objective in designing the physical evidence strategy of hospital by which it can create a patient-friendly atmosphere and comfortable access to the health services.

Therefore, the hospital face an altogether different psychological situation compared to patient 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. According to the finding and real observations, some medicine are not available in the hospital drug store, no enough and comfortable beds with good directory signs to the patients, there is suffocated and not well decorated atmosphere rooms. Therefore, the Otona teaching and referral hospital heads give more focus on the above recommended physical evidences of the marketing mix strategies.

f) *Health Process Strategy*

The research data indicates that process Strategy is evident by the value of positive Pearson

correlation and significant at one tailed test with p value of 0.000. It reveals that the health/medical services delivery process strategy Of the marketing is the most sensitive and critical activity that the Wolaita Sodo University Otona teaching and referral hospital, as with any hospital around the south nation nationalities people region which concentrates upon to deliver their services on time.

Most medical cases do not accept any delay during the specialist's treatment. Otona hospital also recognized satisfaction among their patients during delivering of the health services due to the social responsibilities and great competition extent in the health care market. According to data finding a few delays happen during the treatments. So that all concerned bodies put critical looking on privacy keeping during treatments, appointed time management to the patients, pointing of the sequences and steps should the patient handlers go and get medications, the need of dignity respect ion and careful explanations to medicines how, why, when to use it.

g) *Personal Strategy*

Everyone who comes into contact with your customers will make an impression. Many customers cannot separate the product or service from the staff member who provides it, so your people will have a profound effect positive or negative on customer satisfaction. The reputation of your brand rests in the hands of your staff. They must be appropriately trained, well-motivated and have the right attitude. All employees who have contact with customers should be well-suited to the role (CIM 2015). According to the data, personal Strategy is evident by the value of positive Pearson correlation and significant at one tailed test with p-value of 0.000. In addition to this, the finding indicates that Otona hospital is 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 patients in hospital is critical activities that may earn patient satisfaction and admiration, so excellent standards are essential within such an environment.

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