



The Role Of Healthy Marketing In Enhancing Customer Satisfaction Case Study: Hospital Of "Dar Al-Hakim" Bechar

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Abstract:

The study aims to identify the role of the healthy marketing mix in private hospital institutions by measuring the elements of the healthy marketing mix (health service, pricing, distribution, promotion, physical evidence, operations, individuals) and its impact on customer satisfaction. We relied on the descriptive analytical approach and collected information using the questionnaire submitted to the study population of 50 clients at Dar Al-Hakim Hospital - Bechar, the data were analyzed through some statistical tools in the SPSS.V 26 programme. The study found a statistically significant effect between health marketing through the elements of its mixture and customer satisfaction in the hospital under study.

Key Words: Healthy marketing; Healthy marketing mix; Customer satisfaction; Dar Al-Hakim Hospital.

JEL Classification: M31, I11

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Introduction:

Marketing is one of the most important economic activities, and it has become imperative for everyone interested in economics to control this activity by controlling the elements of the marketing mix. They receive such attention, but with the recent trend of marketing, and the emergence of several profitable service sectors such as the health sector, this sector has received special importance as it represents a vital sector and presents the most important opportunities for renewal and development. Which wants to adopt a customer-centric business philosophy, because today's attention is focused on the problem of adapting the high-level health service offer to meet the needs of customers (patients).

Since health organizations such as hospitals, clinics and private health centres are considered the medium in providing health and medical services, and therefore they are the haven for patients who seek wellness and healthy people who ask for prevention, and with the unprecedented pressures increasing on all health organizations at a time when chronic diseases of the era have spread and The epidemic, which led to an increase in the movement of people and their rapid movement from one place to another, the already increasing restrictions on these organizations doubled, and this increase was characterized by characteristics that were not available in the past, especially with regard to the demand for a rapid



response to the requirements of patients and their needs together to further improve the quality of services provided For them, the success of the organization depends not only on the quality of health services but also on customer satisfaction.

Research question: we will try to answer the following main question:

What is the role of the elements of the healthy marketing mix on customer satisfaction in Dar Al-Hakim Hospital?

From this fundamental problem emerge the following sub-questions:

- What is health marketing?
- What is the importance of customer satisfaction with the health service?
- How do the elements of a healthy marketing mix affect customer satisfaction in Dar Al-Hakim Hospital?

Study Methodology: To understand the topic, we used the descriptive analytical method to include some concepts related to the topic. We have used a case study method, by projecting on Dar Al-Hakim Hospital – Bechar – in preparing this research paper, with reliance on the appropriate statistical tools in line with the nature and objectives of the study. We will address the previously raised problem through the following axes:

First: healthy marketing;

second: customer satisfaction;

Third: the role of health marketing in enhancing customer satisfaction in Dar Al-Hakim Hospital -Bechar-

Study hypotheses: to answer the previous question, the following hypotheses were tested:

- **Hypothesis01:** There is a statistically significant relationship at the level (0.05) between the elements of the healthy marketing mix and the achievement of customer satisfaction in "Dar Al-Hakim" Hospital -Bechar.
- **Hypothesis02:** There are no statistically significant differences at the level of significance (0.05) in the responses of the study sample regarding their awareness of the levels of application of the elements of the healthy marketing mix and the degrees of customer satisfaction due to the following variables: (gender, age, educational level, length of stay) in "Dar Al-Hakim" hospital - Bechar.

Importance and aim of the study: Through this research, we will try to highlight the importance of healthy marketing in organizations and its relationship to customer satisfaction. Knowing the reality of customer satisfaction within hospital institutions, as well as knowing the impact of personal variables on this reality. We hope to reach recommendations that contribute to enhancing customer satisfaction with the health service by strengthening the dimensions of health marketing in hospital institutions.

I. Health marketing:

1. Health marketing concept: Kotler Philip defined healthy marketing as “Analysis and planning, implementing and controlling the prepared programs, towards achieving an optional exchange value with the target markets. With the aim of achieving what health organizations seek, through the effective use of pricing,



communication and distribution” (Al Bakri, 2005), through this definition, health marketing goes through four stages:

- **The first stage:** is a stage of analysis and a broad understanding of the environment, the needs and expectations of patients, in addition to competition by knowing what other organizations are doing.
 - **The second stage** is the planning stage, i.e., researching the current and prospective needs of patients, and then setting goals and standards and measuring the extent of the response to these standards by the hospital.
 - **The third stage:** is the stage of evaluation and implementation through managing the healthy marketing mix, then working on marketing the plan within the hospital, and finally striving to develop relations with the public.
 - **The fourth stage:** means monitoring and verifying the correctness of the plan through choices and building budgets, to monitor development and carry out corrective operations, i.e., modifying incoming errors, if any. It also defines health marketing as the "analysis, planning and implementation of programs that have an impact on health services, which take into account the selection of services, setting prices, determining communication channels and outlets for service delivery, in addition to marketing research" (Khalil, 2006). Marketing also "considers the only system that can help a health organization utilize its resources to the maximum extent that it reaches patients to provide health care" (Khalil A.), and from it, we arrive at that healthy behaviour requires the collection of information and data, to determine the actual needs of the target market, and it is also working to determine the type of The health and pharmaceutical services needed by each market, and work to determine the effectiveness of health marketing activities. Since the main focus of marketing activities in health marketing is the pursuit of motivating and educating the public on how to obtain health services, and how to benefit from them by creating and spreading health awareness for them. And that the strength of health marketing programs is not limited to the ability of the health organization to establish public relations, but rather its ability lies in working to generate in individuals the ability to distinguish its services from the services of other organizations.
2. **Characteristics of healthy marketing:** The nature of marketing in health organizations does not differ in essence from what it is in other business organizations, it is one, but the difference lies in the specificity that distinguishes the activity in this organization from that, and perhaps this is mainly due to the mission of the organization and its objectives and the specificity of goods or services that you offer and the nature of the audience you are dealing with. Accordingly, as far as health organizations are concerned, marketing activity is characterized by a number of characteristics, the most prominent of which are the following: (Al Bakri T., 2005).
- Health organizations are distinguished by the fact that their services are general and directed to the general public in the direction of achieving benefit for them, and this is in line with achieving their satisfaction and satisfying their needs.

Accordingly, marketing will require more interaction and communication with a wide audience and multiple styles and cases.

- Most of the amounts spent by public health organizations are mostly sourced from a third party (the state, insurance companies, donors...etc). Health organizations provide their services to the community and receive returns in return, but at the same time, they receive compensation from the third party to cover the shortage of resources or the tendency to increase the possibilities for diversification or development of services.
- Governmental laws and legislations greatly affect the health organization's choice of marketing strategies that can be adopted, and sometimes even dictate some policies in dealing with specific types of health services more than it can be free to provide or not.
- In most health organizations, the decision-making power is distributed between two parties, one of them is the administration and the other is the medical and nursing corps, and this distribution would cause a kind of conflict or problems in choosing the marketing strategies that can be applied, and this would make the marketing department and its activity in the health organization a subject of confusion. He was affected by the results of this conflict.

3. Elements of a healthy marketing mix: Kotler Philip sees that the marketing mix is the marketing itself, to be more precise and on the ground in the overall marketing strategy, define the marketing mix as: "the sum of integrated and interrelated activities that depend on each other to perform the marketing function as planned" (Al-Alaq, 2009), and because the service is intangible, the marketing mix for it is more difficult than it is for tangible physical products, where the four standard elements are consistent to form the marketing mix for each of the services and tangible products with a different application (Admur, 2008), but Borden explained that the elements of the marketing mix are suitable for the industrial sector only, which was confirmed by Sally Dibly when she indicated the possibility of adding other elements to the marketing mix to increase its scope and be consistent with the distinctive characteristics of services (Al-Alaq B., 2002). The following figure shows the marketing mix for health services:

Fig1: Marketing mix of health services



Source: (Dr Roxie Mooney)

3.1 Service: the service is considered an intangible product that contains in its content work or performance that cannot be owned. This means that the service must be provided without error in order to satisfy the beneficiary, and this is what emerges



in the health service more than in any other field. Health institutions are not limited to providing a single service rather, a group of services constitute what is known as the mixture of health services, and among the most prominent decisions related to this mixture: (attia)

- **Breadth:** The number of service lines provided by health institutions, such as surgical services, and nursing services.
- **Depth:** Any number of services within the service line, for example, an institution that provides surgical services, may provide heart surgery.
- **Correlation:** the degree of linkage between services.

3.2 Pricing: the nomenclature of price in the services sector varies to a large extent (value, commission, interest, account ...), which indicates the different circumstances, environments and influences surrounding the pricing decision from one field to another, and the price should not be viewed narrowly as it represents material costs borne by the beneficiary to obtain the product, because it is considered in a holistic view, considering that there are other elements of costs that affect the price, for example, the cost of the muscular and mental effort exerted (Khalil A., Marketing services and its applications, 2006), and since the services are characterized by complications related to the nature of the quality of the service provided, as well as the difficulty of evaluating it on a tangible basis (Lindon Denis, 2005)

3.3 Distribution: the concept of distribution of health services in the health sector is based on defining the geographical locations in which services are provided. We can define two concepts for the distribution outlets in health services:

- Geographical distribution in scattered geographical locations and locations,
- Internal geographical distribution, i.e. within the health institution.

3.4 Promotion: it is sometimes called health awareness or health guidance, and it means all forms of communication emanating from the service provider and directed towards the beneficiary. Health education requires accreditation on the idea that it is welcomed by the beneficiary of the service, and one of the most prominent elements of the promotional mix identified by Kotler can be adopted in the health field as follows: (Nabaa, 2005)

3.5 Physical evidence: it is the environment in which the service is produced and provided to the customer, such as the capacity and location of the health facility, interior design, decorations, lighting and others, which increase patients' confidence in the quality and importance of the services provided by these institutions. The service is to provide information through symbols and banners to guide and educate in addition to building the mental image required by the customer by influencing his perception, to form an assessment that reduces the level of risk in the purchase decision of potential customers who are unable to judge it before consuming it. (Kurtel, 2009).

3.6 Individuals (People concerned with providing health services): They are called the participating parties, and they are the individuals working in the institution who participate in performing the service and providing it to the



customer. That doctors and nurses and the degree of their qualification may increase or decrease significantly the quality of sensory perceptions of patients (Dabanieh, 2006)

3.7 Operations and Procedures: it means the way through which the health service is provided in terms of appropriate monitoring of patients' conditions within the institutions. It also includes speed, accuracy and justice in detention, and treating patients in a friendly manner. The design and management of processes and procedures in the health institution help in:

- Achieving the quality of the service provided by reducing the customer's waiting time and cost.
- The auditor's first impression is generated the moment he enters the institution.
- Attracting potential customers, gaining existing satisfaction and ensuring their loyalty to the organization.
- Achieving the efficiency and effectiveness of the institution by adopting planning and auditing, and taking into account the conformity of the specified standards and not exceeding them.

II. Customer satisfaction: One of the priorities of health institutions is to enhance customer satisfaction where they always work on the search for strengths that satisfy the latter and give a good image of the institution.

1. Satisfaction concept: satisfaction is defined as the outcome of the evaluation made by the beneficiary of a particular exchange process. (Fadhila, 2011), as defined by Kotler and Dubois. B, as the feeling of the customer resulting from the comparison between the characteristics of the product and its expectations. (Religion, 2007). Satisfaction is defined in marketing as the feeling of pleasure or discomfort resulting from comparing past expectations and the experience of consumption. It is also defined as the individual's level of feeling resulting from the comparison between the perceived performance of the product and the expectations of this individual (Sahn, 2007), (J.Lendervie J.Lévy, 2003) And afno'L defined it as the customer's opinion resulting from the gap between his perception of the used product and his expectations. From the previous definitions, we conclude that satisfaction is a psychological feeling and feeling that expresses the difference between perceived service performance and customer expectations.

2. The role of health marketing in enhancing customer satisfaction in Dar Al-Hakim Hospital - Bechar-

In line with the problem posed previously, and to prove the hypotheses of the study, a scientific approach must be followed that creates harmony between the research hypotheses and the process of proving them in the field.

3. Study sample: A sample of the clients of Dar Al-Hakim Hospital - Bechar was selected, and 50 questionnaires were distributed, that is, the beneficiaries of health services in the hospital. The following table shows the mechanism of distributing the questionnaires to the study sample:

**Table 1: Distribution of the questionnaires to the sample members**

Surveys valid for analysis	Surveys cancelled	Surveys not returned	Surveys retrieved	Surveys Distributed
41 82%	5 12%	4 8%	46 92%	50 100%

Source prepared by researchers

After distributing the questionnaires, we retrieved 46 out of 50 distributed questionnaires while we were unable to retrieve 04 questionnaires. After a detailed examination of all the retrieved questionnaires, we found that there are (05) the retrieved questionnaires not valid for analysis due to the respondents not completing the answers to all the questionnaire statements, Therefore, the total number of resolutions valid for analysis is 41 questionnaires, meaning that the percentage of valid questionnaires for statistical processing of their data amounted to (82.00%), which we have unloaded their contents into the SPSS program for statistical processing.

4. Statistical methods used in data analysis: we designed a form (questionnaire) that includes three sections, where the first section includes personal data (gender, age, educational level, length of stay), which are helpful questions in describing the sample of the study, while the second section of the form, which is the section devoted to questions, which includes study variables and includes two axes, the first is independent, it expressed the elements of the marketing mix Health with its seven (7) elements (health service, pricing, distribution, promotion, physical evidence, operations, human element). As for the third section, it expressed the customer's satisfaction, as it included four questions.

III. Results:**1. Characteristics of the sample according to the general data:**

in this element, we have tried to describe the most important characteristics of the studied sample in the following points:

Table 2: Distribution of sample members according to personal variables

		Frequencies	Percentage
Gender	Male	25	61.0
	Female	16	39.0
Age	Less than 20 years old	2	4.9
	20 to 35 years old	20	48.8
	35 to 50 years old	14	34.1
	50 years older	5	12.2
education level	Primary	1	2.4
	Average	4	9.8
	Secondary	14	34.1
	University	22	53.7
Residence	Non-resident	17	41.5
	One day	17	41.5



	Two days	6	14.6
	three and up	1	2.4
The interest you are dealing with	men's service	6	14.63
	women's service	7	17.07
	maternity service	8	19.51
	Department of General Medicine	3	7.32
	Department of Medicine	2	4.88
	emergency	15	36.59
	Total	41	100.00

Source prepared by researchers

2. For the independent variable: It is related to measuring the levels of the healthy marketing mix in the institution under study This part contains a description and evaluation of the degrees of approval by knowing the opinions and attitudes of the sample members towards their answers to the statements of the first axis of the questionnaire: the healthy marketing mix according to statements from 01 to 31. A statement consists of 07 elements (first element: health service, second element: pricing The third element: distribution, the fourth element: promotion, the fifth element: the physical evidence, the sixth element: operations, the seventh element: the human element) and the following is a presentation of the results obtained according to the following table:

Table 3: Results of analyzing the answers of the sample members to the phrases: First Axis

Code	Phrases	SMA	standard deviation	Relative importance %	ranking	general direction
01	The First Dimension: The Health Service	4.2805	0.59738	85.61	highly	
1	The hospital provides excellent services for inpatients and outpatients.	4.10	0.800	81.95	04	high approval
2	The hospital provides a variety of health services in all specialties.	4.24	0.538	84.88	03	very high approval
3	The hospital prioritizes the needs (benefits) of its patients.	4.27	0.742	85.37	02	very high approval
4	The hospital provides sufficient information about its services to the patient.	4.39	0.771	87.80	01	very high approval
Relative weight of the arithmetic mean (%) = (arithmetic mean * 100) /5						

Source: Prepared by researchers based on questionnaire data and SPSS program outputs. V



Table 4: Results of analyzing the answers of the sample members to the phrases: First Axis

Code	Phrases	SMA	standard deviation	Relative importance %	ranking	general direction
02	The Second Dimension: Pricing	3.8902	0.51250	77.80	Medium	
5	You are aware of the prices of health services provided in the hospital.	3.59	0.948	71.71	04	high approval
6	Prices have an important influence in choosing a hospital.	3.83	0.863	76.59	03	high approval
7	Health costs are appropriate compared to the quality of the health service.	4.20	0.641	83.90	01	high approval
8	The hospital provides many ways to facilitate the bill payment process.	3.95	0.740	79.02	02	high approval
Relative weight of the arithmetic mean (%) = (arithmetic mean * 100) /5						

Source: Prepared by researchers based on questionnaire data and SPSS program outputs. V

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Table 5: Results of analyzing the answers of the sample members to the phrases: First Axis

Code	Phrases	SMA	standard deviation	Relative importance %	ranking	general direction
03	The Third Dimension: Distribution	4.1902	0.48156	83.80	Highly	
9	The hospital is easily accessible due to its convenient location.	4.51	0.553	90.24	02	very high approval
10	The hospital has rooms equipped with all the equipment needed by the patient.	4.59	0.547	91.71	01	very high approval
11	Hospital working hours are suitable for patients.	4.41	0.547	88.29	03	very high approval
12	The hospital has a parking lot.	3.27	1.361	65.37	05	Medium approval
13	Customers are familiar with and can easily access the hospital's website.	4.17	0.919	83.41	04	high approval
Relative weight of the arithmetic mean (%) = (arithmetic mean * 100) /5						

Source: Prepared by researchers based on questionnaire data and SPSS program outputs. V

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Table 6: Results of analyzing the answers of the sample members to the phrases: First Axis

Code	Phrases	SMA	standard deviation	Relative importance %	ranking	general direction
04	Fourth Dimension: Promotion	3.2439	0.78890	64.88		Medium
14	The hospital informs you of the health services it provides through advertising posters.	3.37	1.043	67.32	01	Medium approval
15	Radio is the most popular way to promote health services in the hospital.	3.24	1.135	64.88	02	Medium approval
16	The hospital sometimes gives gifts to patients to positively influence their personal opinions about the hospital.	3.12	0.954	62.44	03	Medium approval
Relative weight of the arithmetic mean (%) = (arithmetic mean * 100) /5						

Source: Prepared by researchers based on questionnaire data and SPSS program outputs. V
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Table 7: Results of analyzing the answers of the sample members to the phrases: First Axis

Code	Phrases	SMA	standard deviation	Relative importance %	ranking	general direction
05	The Fifth Dimension: Physical Evidence	4.5610	0.40226	91.22		very high
17	The hospital staff is keen on cleanliness and good appearance.	4.46	0.925	89.27	03	very high approval
18	The hospital has waiting rooms equipped with various amenities.	4.73	0.449	94.63	01	very high approval
19	The hospital puts up guiding boards to facilitate access to the various departments and branches.	4.41	0.670	88.29	04	very high approval
20	The hospital provides modern medical equipment and devices to provide high-quality services.	4.63	0.488	92.68	02	very high approval
Relative weight of the arithmetic mean (%) = (arithmetic mean * 100) /5						

Source: Prepared by researchers based on questionnaire data and SPSS program outputs. V
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Table 8: Results of analyzing the answers of the sample members to the phrases: First Axis

Code	Phrases	SMA	standard deviation	Relative importance %	ranking	general direction
06	Sixth Dimension: Operations	4.1756	0.64683	83.51		Highly
21	The hospital is keen to provide health services in a correct manner from the beginning.	4.15	0.760	82.93	03	high approval
22	The hospital responds quickly to patients' problems and inquiries.	4.15	0.823	82.93	04	high approval
23	The hospital is keen to gain the trust of the beneficiaries of its health services.	4.27	0.593	85.37	02	very high approval
24	The hospital circulates work procedures to ensure speed and ease in providing health services.	4.22	0.725	84.39	01	very high approval
25	The hospital is distinguished by punctual appointments for providing services.	4.10	0.700	81.95	05	high approval
Relative weight of the arithmetic mean (%) = (arithmetic mean * 100) /5						

Source: Prepared by researchers based on questionnaire data and SPSS program outputs. V
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Table 9: Results of analyzing the answers of the sample members to the phrases: First Axis

Code	Phrases	SMA	standard deviation	Relative importance %	ranking	general direction
07	The Seventh Dimension: The Human Element	4.2846	0.56180	85.69		very high
26	The doctors and paramedics in the hospital are distinguished by their good experience and high efficiency.	4.24	0.767	84.88	04	very high approval
27	Patients are treated in the hospital with a sense of humour and friendship by the hospital staff.	4.27	0.708	85.37	03	very high approval
28	The doctor is keen on individual attention to patients.	4.37	0.623	87.32	02	very high approval
29	Hospital staff receive and direct patients.	4.20	0.715	83.90	05	very high approval
30	The hospital administration works to receive and direct patients.	4.44	0.502	88.78	01	very high approval
31	Hospital staff explain to patients the problems they are experiencing in a way that the patient can understand.	4.20	0.749	83.90	06	high approval
Relative weight of the arithmetic mean (%) = (arithmetic mean * 100) /5						

Source: Prepared by researchers based on questionnaire data and SPSS program outputs. V
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**Table 10: average field and approval level**

average field	From 01 to 1.80	From 1.81 to 2.60	From 2.61 to 3.40	From 3.41 to 4.20	From 4.21 to 5
approval level	Very low degree	Low degree	Medium degree	High degree	Very high degree
We arrange the expressions according to their importance in each dimension, depending on the largest value of the arithmetic mean in the dimension.					

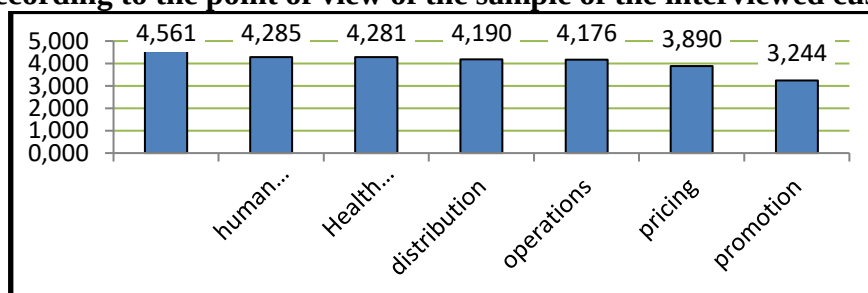
Source: Prepared by researchers based on questionnaire data and SPSS program outputs. V

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IV. Analysis of the results of the study:

The results of calculating the arithmetic mean and deviation values normative view of the opinions and attitudes of the sample members regarding the extent of their agreement or disagreement with the statements of the first axis: related to measuring the levels of the healthy marketing mix - from the point of view of a sample of customers at Dar Al-Hakim Hospital - Bashar. The axis has a value of 4.133 and it is within the range of high agreement (from 3.41-4.20 degrees) and with a standard deviation of: 0.436, which indicates the convergence of the opinions of the sample individuals and their concentration around the value of the total arithmetic mean, where the dispersion between their opinions is weak and therefore these values give us a statistical result that there is no dispersion significant in the opinions of the respondents, and this supports the results obtained, while the total arithmetic mean represents the data centre for the trends of the sample members, that is, all of them agree with a percentage of 82.71% indicated in the hospital under study according to their point of view, and this is what we note about their answers to the content of the axis phrases, as most of them were in high degrees, with their arithmetic averages confined between (4.73 the highest value for phrase No. 18 to the lowest value). It reached 3.12 for phrase No. 16) and the following is the arrangement of the healthy marketing mix (health service, pricing, distribution, promotion, material evidence, operations, human element) of the study sample members as follows:

Fig7: shows the order of the levels of the elements of the healthy marketing mix according to the point of view of the sample of the interviewed customers



Source: Prepared by researchers based on Excel 2010

- As for the fifth element, the physical evidence: it ranked first in the institution, where the arithmetic means of the total answers of the respondents towards the expressions of the dimension amounted to a value of 4.561, which is within the scope



of a very high agreement (from 4.21-05 degrees), meaning that the level of material evidence at Dar Al-Hakim Hospital - Bashar - the place of the study, where the hospital is characterized by a very good appearance, both internal and external, especially Through the fact that the hospital workers are keen on cleanliness and good appearance, and the hospital also has waiting rooms equipped with various amenities, to comfort patients and visitors, the hospital provides guiding panels to facilitate access to the various departments and branches ... etc.) Most of them are of very high degrees, as their arithmetic averages ranged from (4.73 the highest value for statement No. 18 to the lowest value of 4.41 for statement No. 19). According to the respondents' point of view.

- **As for the seventh element, the human element:** at Dar Al-Hakim Hospital - Bechar- it ranked second in terms of its importance to the respondents, where the arithmetic means of the total answers of the respondents towards the expressions of the dimension reached a value of 4.284, which is within the scope of a very high agreement (from 4.21-05 degrees). At very high degrees, where their arithmetic mean ranged from (4.44 the highest value for statement No. 30 to the lowest value of 4.20 for statement No. 31). According to the respondents' point of view. As the doctors and paramedics in the hospital are characterized by good experience and high efficiency, which qualifies them to deal in a cheerful spirit and friendship with patients on the part of the hospital staff ... etc.

- **As for the third component, health services:** at Dar Al-Hakim Hospital - Bechar- it ranked third in terms of their importance to the respondents, where the arithmetic mean of the total answers of the respondents towards the dimension phrases reached a value of 4.280, which is within the field a very high agreement 05-4.21 and this is what we notice about their answers to the content of the dimension phrases, where most of them were in very high degrees where their averages The arithmetic ranged between (4.39 the highest value for phrase No. 04 to the lowest value of 4.10 for phrase No. 01) according to the respondents' point of view, as the hospital provides distinguished services to inpatients and outpatients by achieving the patient's benefit above all considerations...etc.

1. For the dependent variable: related to measuring customer satisfaction levels in the hospital, contains a description and evaluation of the degrees of approval by knowing the opinions and attitudes of the sample members towards their answers to the phrases on the second axis of the questionnaire according to phrases from 32 to 35. The following is a presentation of the results obtained according to the following table:



Table 11: results of analyzing the answers of the sample members to the phrases: Axis 02

Phrases: Table 2						
Code	Phrases	SMA	standard deviation	Relative importance%	ranking	general direction
Dependent variable: Customer Satisfaction		4.29	0.716	85.85	02	very high
1	You are satisfied with the quality of health services provided in the hospital.	4.29	0.716	85.85	02	very high approval
2	You feel comfortable dealing with the hospital.	4.34	0.693	86.83	01	very high approval
3	You see that the hospital is keen to meet the needs and desires of patients according to their expectations.	4.27	0.742	85.37	03	very high approval
4	You defend the hospital when some criticize it in any way.	4.10	0.735	81.95	04	high approval
Relative weight of the arithmetic mean (%) = (arithmetic mean * 100) /5						
average field	From 01 to 1.80	From 1.81 to 2.60	From 2.61 to 3.40	From 3.41 to 4.20	From 4.21 to 5	
approval level	Very low degree	Low degree	Medium degree	Very high degree	High degree	
We arrange the statements by their importance in each dimension, depending on the largest value of the arithmetic mean in the dimension.						

Source: Prepared by researchers based on questionnaire data and SPSS program outputs. V 26

The results of calculating the values of the arithmetic mean and standard deviation, of the opinions and trends of the sample members regarding the extent to which they agree, disagree or are neutral towards the expressions of the second axis: related to measuring the levels of customer satisfaction with health services at Dar Al-Hakim Hospital - Bashar - and in general, the arithmetic mean The total responses of the respondents to all the axis statements are valued at 4.250, which is within the range of very high agreement (from 4.21-05 degrees) and with a standard deviation of: 0.661. The values are a statistical result that there is no significant dispersion in the opinions of the respondents, and this supports the results obtained, while the total arithmetic mean represents the data centre for the trends of the sample members, meaning all of them agree with a percentage of 85.00% that the levels of customer (patient) satisfaction are very high about the health services in the hospital under study according to their point of view and this is what we notice about their answers



to the content of the axis statements, where most of them were at very high degrees, where their arithmetic averages are confined between (4.34 the highest value of the phrase number 33 to the lowest value of 4.10 of the phrase number35).

2. Testing the hypotheses of the study:

- **Hypothesis Test 01:** there is a statistically significant relationship at the level (0.05) between the elements of a healthy marketing mix and achieving customer satisfaction in “Dar Al-Hakim” Hospital – Bechar.
- **Statistical hypothesis text:** a hypothesis is tested at the significance level of 0.05, and accordingly we reformulate it to the null hypothesis H0 and the alternative hypothesis H1as follows:
- **The null hypothesis (H0):** there is no statistically significant relationship at the 0.05 level Between the elements of the healthy marketing mix and achieving customer satisfaction in "Dar Al-Hakim" Hospital - Bechar.
- **The alternative hypothesis (H1):** There is a statistically significant relationship at the level (0.05) between elements of the healthy marketing mix and achieving customer satisfaction in "Dar Al-Hakim" Hospital - Bechar.
- Multiple regression was used to find out the effect of the independent variables on the elements of the healthy marketing mix on the dependent variable: customer satisfaction, which one has an effect on the dependent variable and which one has no effect on the presence of the other independent variables.
- **Formulation of the multiple linear regression model of the hypothesis:** in order to study the relationship between the independent variable (Influencing) and dependent variable (Influenced) We depend on the following equation:

$$Y = B_0 + B_1 (x_1) + B_2 (x_2) + B_3 (x_3) + \varepsilon_i$$

- ε_i represents the random errors --- B_0 the constant parameter-- y the dependent variable (Achieving customer satisfaction)
- $B_1 (X_1)$: Regression coefficient for the independent variable (first component: health service)
- $B_2 (X_2)$ Regression coefficient for the independent variable (second component: pricing)
- $B_3 (X_3)$ Regression coefficient for the independent variable (third component: distribution)
- $B_4 (X_4)$ Regression coefficient for the independent variable (fourth component: promotion)
- $B_5 (X_5)$ Regression coefficient for the independent variable (fifth element: physical evidence)
- $B_6 (X_6)$ Regression coefficient for the independent variable (sixth element: operations)
- $B_7 (X_7)$ Regression coefficient for the independent variable (seventh element: the human element)

The following table is a summary of the output tables of the multiple regression analysis using the program SPSS which summarizes the regression model (r , R^2); analyses the variance ANOVA.



Table 12: shows the results of the multiple regression model to test hypothesis 01

The explanatory power of the model					
R the multiple correlation coefficient			R Square Interpretation coefficient		
0.900			0.810		
The overall significance of the model according to the results of the ANOVA analysis					
F-test (F-test)			Sig. level of significance or probability of error p		
20.067			0.000		
Partial significance of the regression coefficients					
independent variables	B The values of the regression coefficients		test values T	Sig Probability value.	Diagnosing the problem of linear interference between independent variables
Constant	=B0	0.000	7.500	0.000	
The Health Service	=B0	1.736	7.500	0.000	
Pricing	=B2	0.000	6.661	0.000	
Distribution	=B3	0.000	7.312	0.000	
Promotion	=B4	0.000	5.329	0.000	
Physical Evidence	=B5	0.000	10.308	0.000	
Operations	=B6	0.000	6.873	0.000	
The Human Element	=B7	0.000	9.428	0.000	

Source: Prepared by researchers based on questionnaire data and SPSS program outputs. V

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The multiple regression analysis table shows the following: The value of the variance inflation factor (VIF) for all independent variables The first component: is health service, the second component: is pricing, the third component: is distribution, the fourth component: promotion, the fifth component: physical evidence, the sixth element: operations, the seventh element: the human element) is less than 5. Where we find that the (VIF) values of the independent variables are confined between (3.285 the highest value and the lowest value 1.222), which shows that there is no problem with multilinearity in the data of the independent variables Including the results of the multiple regression model related to the Hypothesis 01 test. They will be accurate and we rely on their results for analysis and interpretation.

We reject the null hypothesis (H0) and we accept the alternative hypothesis (H1): there is a significant relationship: (H Statistics at the level (0.05) between the elements of the healthy marketing mix and the achievement of customer satisfaction at Dar Al-Hakim Hospital – Bechar.

- Interpretation of the value of the Pearson correlation coefficient (R): through the Pearson correlation coefficient, which reached its value: R (= 0.900) and its value is positive and statistically significant because the value of the significant level (sig



=0.000) is less than the significance level of 0.05. This indicates that the relationship between the variables of the healthy marketing mix elements and the variable (customer satisfaction) is positive, that is, every increase in the application of the elements of the healthy marketing mix leads to an increase in achieving customer satisfaction at Dar Al- Hakim Hospital - Bechar, and this result is logical.

- Interpretation of the value of the coefficient of determination (R^2) (interpretation ratio): Through the above table, we find the value of the coefficient of determination estimated at $R^2 = 0.810$, which shows that the explanatory power of the regression model amounted to 81.00%, meaning that 81.00% of the changes in the variable of achieving customer satisfaction at Dar Al- Hakim Hospital - Bechar, are due to the effect of the change in the values of the variables of the health marketing mix elements from the point of view of the sample of the respondents and the rest is due to other factors, in other words, the application of the healthy marketing mix in the institution under study contributes 81.00% to achieving patient satisfaction and the rest is 19%, refer to other factors that we did not address in the current study.

- Interpretation of the effect value (regression coefficient B): for the independent variables in the dependent variable, whichever one has an effect (significant effect) and whichever one has no effect (non-significant effect) and then excluded from the model (multiple regression equation), the regression coefficient values mentioned in the above table indicate that all elements of the healthy marketing mix have a significant effect on the dependent variable (customer satisfaction) at Dar Al-Hakim Hospital - Bechar, where:

- The regression coefficient for the independent variable (first dimension: health service) reached a value of ($B = 0.323$), which is a positive value (positive effect) and a statistical function, as we find that the calculated (T) value amounted to ($T_{cal} = 7.766$) and that the value ($0.000 = Sig$) It is less than the significance level of 0.05, and we can explain this that the effect of the variable (health service in the hospital) is significant (statistically significant), which means that every change of one degree in the application of the health service, will lead to a positive change in increasing customer satisfaction at Dar Al-Hakim Hospital- Bashar with a value of 0.323.

- The regression coefficient for the independent variable (second dimension: pricing) is ($B = 0.192$), which is a positive value (positive effect) and is statistically significant, as we find that the calculated (T) value amounted to ($T_{cal} = 6.661$) and that the value ($0.000 = Sig$) is less From the significance level of 0.05, and we can explain this that the effect of the variable (pricing in the hospital) is significant (statistically significant), which means that every change of one degree in the application of pricing, will lead to a positive change in increasing customer satisfaction at Dar Al-Hakim Hospital -Bechar - with a value of 0.192.

- The regression coefficient for the independent variable (the third dimension: distribution) reached a value of ($B = 0.310$), which is a positive value (positive effect) and a statistical function, where we find that the calculated (T) value amounted to ($T_{cal} = 7.312$) and that the value ($0.000 = Sig$) is less From the significance level of 0.05, and we can explain this that the effect of the variable (distribution in the hospital) is significant (statistically significant), which means that every change of



one degree in the application of the distribution, will lead to a positive change in increasing the achievement of customer satisfaction at Dar Al-Hakim Hospital - Bechar - with a value of 0.310.

- The regression coefficient for the independent variable (the fourth dimension: promotion) reached a value of ($B = 0.188$), which is a positive value (positive effect) and a statistical function, where we find that the calculated (T) value amounted to ($T_{cal} = 5.329$) and that the value ($0.000 = Sig$) is less from the significance level of 0.05, we can explain that the effect of Variable (hospital promotion) significant (statistically significant). This means that each change of one degree in the application of the promotion will lead to a positive change in the increase in customer satisfaction at Dar Al-Hakim Hospital - Bechar - with a value of 0.188.

- The regression coefficient for the independent variable (fifth dimension: physical evidence) reached a value of ($B = 0.487$), which is a positive value (positive effect) and a statistical function, as we find that the calculated (T) value amounted to ($T_{cal} = 10$) and that the value of ($Sig = 0.000$) It is less than the significance level of 0.05, and we can explain this that the effect of the variable (promotion in the hospital) is significant (statistically significant), which means that every change of one degree in the application of the promotion, will lead to a positive change in increasing customer satisfaction at Dar Al-Hakim Hospital - Bechar - worth 0.487.

- The regression coefficient for the independent variable (sixth dimension: operations) reached a value of ($B = 0.255$), which is a positive value (positive effect) and a statistical function, where we find that the calculated (T) value amounted to ($T_{cal} = 6.873$) and that the value ($0.000 = Sig$) is less From the significance level of 0.05, and we can explain this that the effect of the variable (operations in the hospital) is significant (statistically significant), which means that every change of one degree in the application of operations, will lead to a positive change in increasing customer satisfaction at Dar Al-Hakim Hospital - Bechar - worth 0.255.

- The regression coefficient for the independent variable (sixth dimension: operations) reached a value of ($B = 0.345$), which is a positive value (positive effect) and a statistical function, where we find that the calculated (T) value amounted to ($T_{cal} = 9.428$) and that the value ($0.000 = Sig$) is less From the significance level of 0.05, and we can explain this that the effect of the variable (operations in the hospital) is significant (statistically significant), which means that every change of one degree in the application of operations, will lead to a positive change in increasing customer satisfaction at Dar Al-Hakim Hospital - Bechar - with a value of 0.345.

- Including the multiple linear regression model that matches the sample data and is related to the study: The contribution of the health marketing application to achieving customer satisfaction at Dar Al-Hakim Hospital - Bechar - at the level of significance (0.05) from the point of view of customers is:

$$\text{Customer satisfaction} = 1.736 + 0.323 \text{ (health service)} + 0.192 \text{ (pricing)} + 0.310 \text{ (distribution)} + 0.188 \text{ (promotion)} + 0.487 \text{ (physical evidence)} + 0.255 \text{ (operations)} + 0.345 \text{ (human factor)}$$

A constant value of ($1.736 = B$), which expresses the value of patient satisfaction at Dar Al-Hakim Hospital - Bashar in the absence of the application of health marketing



elements in the institution (the subject of the study), which explains the existence of a minimum limit to achieve customer satisfaction controlled by factors other than those mentioned in our study. That is, the distinction of the institution is also contributed by other variables in addition to the variables of the current study.

Hypothesis Test02: There are no statistically significant differences in the sample responses regarding their awareness of the levels of application of the elements of healthy marketing and the degrees of customer satisfaction due to the following variables: (gender, age, educational level, and length of stay). To test the hypothesis, we reformulate it statistically at a significance level (0.05) to a null hypothesis H_0 and alternative hypothesis H_1 as follows:

Statistical hypothesis text:

- Null hypothesis (H_0): there are no statistically significant differences at the level of significance: (0.05) in the sample responses regarding their awareness of the levels of application of health marketing elements and the degree of customer satisfaction due to the following variables (gender, age, educational level, length of stay).
- Alternative hypothesis (H_1): there are statistically significant differences at the level of significance: (0.05) in the sample responses regarding their awareness of the levels of application of health marketing elements and the degree of customer satisfaction due to the following variables: (gender, age, educational level, length of stay).

Table 13: shows the results of the difference between the averages test, the respondents' opinions about healthy marketing levels and customer satisfaction) attributed to the variables (gender, age, educational level, length of stay).

	Independent Samples Test		One-way-ANOVA					
	gender		Age		Educational level		length of stay	
	T- test	Sig	T- test	Sig	T- test	Sig	T- test	Sig
Health Marketing	1.837	0.074	0.702	0.557	1.808	0.163	1.141	0.345
Customer Satisfaction	0.600	0.552	0.568	0.640	1.903	0.146	1.138	0.347
the decision	There are no differences		There are no differences		There are no differences		There are no differences	

Source: Prepared by researchers based on questionnaire data and SPSS program outputs. V

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According to the variable (gender): we find that: the calculated (T) value amounted to ($T = 1.837$) and the probabilistic value ($Sig = 0.074$), which is greater than the significance level of 0.05, and from it, there are no statistically significant differences, that is, there are no differences in the opinions and attitudes of the respondents. Between the categories of the gender variable (male, female) towards their awareness of the levels of a health marketing application in the hospital, meaning that whatever the type of respondents differs, they have the same direction



(opinions) at the level of a marketing application in the hospital under study, and the same comparison for the variable customer satisfaction, meaning there are no differences.

According to the variable (age): we find that: the calculated (F) value amounted to ($F = 0.702$) and the probabilistic value ($\text{Sig} = 0.557$), which is greater than the significance level of 0.05, and from it, there are no statistically significant differences, that is, there are no differences in the opinions and attitudes of the respondents. Among the age variable categories (less than 20 years old, 20 to 35 years old, 35 to 50 years old, and older 50 years old) towards their awareness of the levels of a health marketing application in the hospital. The same trend (opinions) at the level of a marketing application in the hospital under study. The same comparison is made for the variable customer satisfaction, meaning there are no differences.

According to the variable (educational level): we find that: the calculated (F) value amounted to ($F = 1.808$) and the probabilistic value ($\text{Sig} = 0.163$), which is greater than the significance level of 0.05, and from it, there are no statistically significant differences, that is, there are no differences in the opinions and attitudes of the sample members. The respondents between the categories of the educational level variable (primary, intermediate, secondary, university) towards their awareness of the levels of a health marketing application in the hospital, meaning that whatever the type of respondents differ, they have the same direction (opinions) at the level of a marketing application in the hospital under study. There are differences.

According to the variable (period of stay): we find that: the calculated (F) value amounted to ($F = 1.141$) and the probabilistic value ($\text{Sig} = 0.345$), which is greater than the significance level of 0.05, from which there are no statistically significant differences, that is, there are no differences in the opinions and attitudes of the sample members. The respondents between the categories of the educational level variable (non-resident, one day, two days, three days and above) towards their awareness of the levels of a health marketing application in the hospital. Customer satisfaction, no differences.

From the above results, we concluded that there are no differences in the respondents' answers towards the availability and application of the variables (health marketing, customer satisfaction) due to the variables (gender, age, educational level, length of stay). We reject the alternative hypothesis (H_1) and we accept the null hypothesis (H_0). There are no differences statistically significant at the significance level (0.05) in the sample responses regarding their awareness of the levels of application of health marketing elements and the degrees of customer satisfaction due to the following variables: (gender, age, educational level, length of stay).

**Conclusion:**

There is no doubt that the interest at the level of organizations in several respects is mainly related to changing the management of health organizations towards how the decision-making process should take place in the health field, especially with regard to the design of the marketing mix with its various elements.

Health, its continuity, and its ability to apply modern concepts of marketing, as the latter's view of the marketing function has changed, especially as a result of technological development and the wealth of information, in addition to the intensification of competition in this sector. In light of the analysis of the answers of the study sample, results were reached, the most important of which were:

- There is a direct relationship between health service and customer satisfaction, The higher the level of health service, the greater the customer's satisfaction.
- Given the characteristics of the services in general and the health service in particular especially, health organizations have to expand their marketing mix to include the human element, physical evidence...
- The success of marketing in health organizations is determined by the development of a group of strategies which include setting goals for the organization.
- The level of application of Dar Al-Hakim Hospital – Bechar - to the elements of the healthy marketing mix is highly rated.
- The value of customer satisfaction degrees with health services in Dar Al-Hakim Hospital - Bechar is highly rated.
- There is a statistically significant relationship at the level (0.05) between health marketing and achieving customer satisfaction at Dar Al-Hakim Hospital – Bechar
- There are no statistically significant differences at the significance level (0.05) in the responses. The sample towards their awareness of the levels of application of the elements of health marketing and the degrees of customer satisfaction is attributed to the following variables: (gender, age, educational level, and length of stay).

Applying the elements of the healthy marketing mix together contributes to the changes that occur in enhancing patient satisfaction in Dar Al-Hakim Hospital - Bechar, which is a high percentage, and among these elements of the healthy marketing mix, the most influential on increasing the value of achieving customer satisfaction is the material evidence with an effect value of (0.487) an increase in achieving customer satisfaction, followed by the human factor (0.345), followed by the element Service (0.323), followed by a distribution (0.310), operations (0.255), pricing (0.192), and promotion (0.188).



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