

**Measuring the quality of health service on the confidence and satisfaction of patients in private health clinics Case study: a private health clinic (Azzouni) in Tlemcen**

قياس جودة الخدمة الصحية على ثقة و رضا المرضى بالعيادات الصحية الخاصة دراسة حالة: عيادة صحية خاصة  
(عزوني) بمدينة تلمسان

**ABBAS Abdel Hafid<sup>1</sup>, CHIB Djazia Amina<sup>2</sup>, CHENTOUF kheira<sup>3</sup>**

<sup>1</sup>Abou Bekr BELKAID University, GPES Laboratory -Tlemcen (Algeria),  
abdelhafid.abbas@univ-tlemcen.dz

<sup>2</sup>Abou Bekr BELKAID University, MIFMA Laboratory -Tlemcen (Algeria),  
djazia.chib@univ-tlemcen.dz

<sup>3</sup>Oran Graduate School of Economics -Oran (Algeria), khiera.chentouf@ese-oran.dz

**Received:** 15/07/2023

**Accepted:** 09/09/2023

**Published:** 30/09/2023

**Abstract**

This study is concerned with measuring the direct and indirect effect of the dimensions of the gaps model SERVQUAL which is based on service quality also on the trust and satisfaction of customers. To achieve our desired goal, we conducted a field study on patients who receive examinations and treatment in a private health clinic (Azouni) in the city of Tlemcen, so data was collected from 208 patients. The results of the regression analysis revealed that the multidimensional quality of the service scale is positively and significantly associated with the overall quality perceived by customers. According to the SERVQUAL model

**Keywords:** perceived quality, quality health services, customer (patient) satisfaction ,healthy market SERVQUAL model

**JEL Classification Codes** H51. I18.J28

**ملخص:**

تتم هذه الدراسة بقياس الأثر المباشر وغير المباشر لأبعاد نموذج الفجوات SERVQUAL على الجودة المدركة للخدمة وعلى ثقة و رضا الزبائن. و لبلوغ غايتنا المنشودة قمنا بدراسة ميدانية على المرضى الذين يتلقون الفحوصات و العلاج في عيادة صحية خاصة (عزوني) بمدينة تلمسان، لذلك تم جمع البيانات من 208 مريض. كشفت نتائج تحليل الانحدار أن الجودة متعددة الأبعاد لمقياس الخدمة مرتبطة بشكل إيجابي وكبير بالجودة الشاملة التي يدركها الزبائن. وفق نموذج SERVQUAL

**كلمات مفتاحية:** الجودة المدركة الشاملة، جودة الخدمات الصحية، رضا الزبون ( المريض ) ، السوق الصحي، نموذج SERVQUAL

**تصنيفات JEL:** H51 .I18 J28

## INTRODUCTION:

Nowadays, increasing competition has affected service-oriented private and public organizations everywhere. It became intensified between the service and production institutions, also it became necessary for the latter to keep pace with these changes, to take care of the issue of quality and put it at the center of its interests. Institutions must provide services that satisfy consumers. In particular, we mention the health service institutions that work to achieve their goals by meeting the needs and desires of their customers represented by patients, which is the reason for their survival within the competitive environment in healthy market<sup>1</sup>. Health care organizations of any kind (public or private) are considered one of the most important organizations in the service field because they relate to the health aspect of the individual, as they affect and are affected by it, they need to go beyond the medical view, and take into account the social aspect, so treatment and accurate diagnosis are no longer enough, patients need to perform in all services provided to them, so researchers try to determine patients' priorities and preferences<sup>2</sup> That is, the demand for improving the quality of services is constantly increasing, which leads to an increase in pressure in supply (health service providers), which has become a difficult task for researchers, treatment specialists, hospital officials and government policy makers, and this is what helps them to maintain their patients and earn their trust and satisfaction<sup>3</sup>. Over the course of the third decade, service quality was considered one of the rare topics in the service marketing literature that obtained academic studies and research in this field<sup>4</sup> As it is a familiar term that is used in many organizations when the service meets the needs and expectations of customers, so we can say that it is one of the most important reasons that the patient needs while receiving the health service.

### Research question:

Although, despite the great attention that health care services have received recently as the fastest growing service industry around the world, but there are concerns about its intangibility. Which required marketing men to search for how to apply accurate health services that are compatible with the requirements of patients on the one hand and achieve the general goals of health institutions On the other hand, where indicated (Naidu2009)<sup>5</sup> That the quality of service is the most effective way to distinguish any health organization, through the multiplicity of competitive trends increased service standards, which in turn raised the ceiling of expectations<sup>6</sup> Consumers became more aware of the health services provided to them, as the patient had to deal with the service provider to meet his needs, while the service providers intended to reach patients' satisfaction only.<sup>7</sup>

For some researchers, patients' satisfaction is the result of the gap between their expectations and perceptions of the health service provided to them<sup>8</sup> (Fitzpatrick and Hopkins 1983), and since the health services sector is an abstract term in general and different from the commodity market, evaluating the quality of its service is more difficult than evaluating the quality of goods, so measurements of service quality are generally made using consumer perceptions (patients) and their perceptions that are considered (Cronin & Taylor, 1992)<sup>9</sup>. They are the main indicators for the quality of services and the efficiency of health care to underpin the health sector. In order to measure the quality of health services provided by these organizations and to identify the gap between expectations and perceptions, the SERVQUAL model appeared, which is considered one of the best models used in assessing

## **Measuring the quality of health service on the confidence and satisfaction of patients in private health clinics Case study: a private health clinic (Azzouni) in Tlemcen.**

---

the accurate insight of patients.<sup>10</sup>. According to the above information, we have developed the following problematic:

### **What is the impact of health service quality dimensions on patient satisfaction?**

To address this problem, we reviewed a group of study literature. In many field studies, the effect of the dimensions of quality of services has been proven on both the perceived quality of health services and patients' confidence and satisfaction in health institutions, whether public or private.

### **Previous studies :**

There are many studies that dealt with issues of embodying and applying a ServQual model in the health sector, including: a study (Pakdil & Harwood, 2005) titled Patients' Satisfaction in the Preoperative Stage. Clinic Assessment: Analysis Using Dimensions<sup>11</sup>SERVQUAL and (GREMINGNI, et.al) (2008): Validating Healthcare Communication Using the HCCQ Questionnaire to Measure Outpatient Communication Experience with Hospital Staff<sup>12</sup> Study (Purcărea, VL et..al, ) (2013): Evaluation of the perceived service quality of public health care services in Romania using the SERVQUAL scale, and the study of (Mohamed Nour El-Taher and Ahmed Abdelkader), (2015)<sup>13</sup>Titled:measurementThe quality of health services in government hospitals in Sudan from the patients' point of viewand reviewers. A field study on major teaching hospitals in Khartoum state

study (Aliman, NK, & Mohamad, WN ). (2016)<sup>14</sup>The purpose of this paper is to examine the relationship between perceived service quality, patient satisfaction and behavioral intentions in the private healthcare industry in Malaysia,study:(Meesala, A., & Paul, J.) ( 2018)<sup>15</sup>Service quality and consumer satisfaction and loyalty in hospitals: future thinking.

### **The aim of this study:**

Our study aims at a set of points that it seeks to answer, and in particular:

- Know how services are provided in private health clinics.-
- Full knowledge of all methods that promote the quality of service to a positive level in order for the patient to realize, trust and be satisfied with the services provided to him within the health clinic.
- Studying the various factors that have a direct or indirect impact on patient satisfaction through the dimensions mentioned in the form SERVQUAL.
- Clarify and clarify the nature of the relationship between all variables that help improve the quality of health services.

### **The importance of doing this study:**

The role of embodying the dimensions of the quality of health services in achieving confidence and satisfaction among the clients of the private clinic represented by patients, depending on the dimensions of the ServQual model developed by Parasuaman et al. (1985).

The importance of the quality of health services in achieving the general goals of private clinics.

Studying the impact of health sector services on community members.

Knowing the factors affecting the confidence and satisfaction of clients of private clinics.

**The method used in our study:**

We embodied the descriptive approach and the analytical approach to carry out the theoretical study of our topic related to "dimensions of the quality of health services and their impact on patient satisfaction". We distributed it to the patients of this clinic, and we also tested the seven hypotheses that we touched on previously, and which we will process and analyze later by using the structural equations model to ascertain the relationships between the dimensions of service quality and patient satisfaction in the private clinic.

**Study structure:**

We divided our research into two parts, a theoretical part in which we dealt with general concepts about service quality and its dimensions, and its impact on the perceived quality of service, trust and patient satisfaction. In the second section, we dealt with the applied side of the study, where we used a tool to collect data for the studied sample consisting of patients of the private clinic "to verify the hypotheses that we mentioned earlier, and to analyze this data we used SPSS for exploratory analysis, and STATISTICA for hypothesis testing.

**1The theoretical framework of the study**

**1-1. Perceived Quality:**

**1-1-1. definition of the concept:** Perceived quality means "the judgment made by the consumer about the overall advantage or superiority of a product or service".<sup>16</sup>And Gronröös defined it as "the mental comparison between the quality expected by the consumer and the quality obtained (real quality)". This is in way or another from information gained by previous experiences or from specification-related advertising about products or services. On this basis, the perceived quality of a brand is characterized as subjective: being subject to the characteristics of consumers, their justifications, their experiences with the product or service of the brand , and also the context in which the consumption took place, and thus the psychological satisfaction of the consumer was achieved, and at the same time be objective in the manner of its compliance with ISO, its technical superiority, ...etc.

**1-2- Indicators and specifications of perceived quality of the brand:**according to Ophuis and Trijp (1995) that the consumer, when evaluating the quality of the product or service of a brand, uses internal and external indicators; To form his perceptions about the specification of perceived quality.

**Table (1): Quality indicators and specifications**

<b>Quality indicators</b>	
external indicators of quality	internal indicators of quality
Price, brand, country of origin, store, nutritional information, manufacturer information.	Appearance, colour, shape, size, structure
<b>Quality specification</b>	

**Measuring the quality of health service on the confidence and satisfaction of patients in private health clinics Case study: a private health clinic (Azzouni) in Tlemcen.**

---

Intangible quality specifications, linked to beliefs: through which experience does not enable examination.	Concrete quality specification, thanks to which experience enables examination
Health, natural characteristic, respect for animals and the environment, safety/purity, unique/rare feature, production conditions.	Taste, freshness, comfort

Source<sup>17</sup>:Ophuis O, et Trijp V (1995), in Jasi S (2000) ; The role of distribution in the perception of the quality of products among consumers is this science.

**1-3- Factors affecting the perceived quality**For the brand:

There are many studies and researches that showed that the perception of quality on the part of the consumer is related to three main factors: the capital of the brand, the image of the store, and finally the perceived price.<sup>18</sup>

**1-3-1- Brand Value:**The brand is considered as the capital of the organization due to the great attention given to it in the field of relationship marketing<sup>19</sup>Aaker defined it as "the marginal value added by a brand to the product perceived by the consumer". This added value consists of a group of winning or losing cards associated with the brand (its name, symbol), which affects the brand negatively or positively. In this context, the writer adds that the impact of brand capital, positively or negatively, depends on the degree of: consumer loyalty; brand reputation; its perceived quality ; its picture; registered patents; distributors;..etc.

**2-3-1- A copy of the point of sale for the trademark:** It relates to how the shop was known in the mind of the consumer on the one hand, and on the other hand, according to his psychological specifications. In addition to its location, the attractiveness of the store is subject to the image of its internal and external appearance, the methods applied in selling, the services provided, the homogeneity of offer, the price,...etc.<sup>20</sup>Even if the product or service of the brand is not known, the consumer gains confidence when that product is in a store with a good image.

**1-3-3-The realized pricefor the brand:** It is the mental estimate of the difference between the internal reference price (which is in the mind of the consumer) and the external reference price (at which the product or service of the brand is sold).<sup>21</sup>It is the outcome of the comparison between these two prices that determines the importance of the perceived price. The latter has a characteristic with a double effect: the first measures the financial sacrifice (price), while the second is considered as a criterion that measures quality.

**1-4 Components of Quality Perceived Brand Service:**In contrast to the quality of commodities that can be measured using some indicators such as their durability, performance, or even the size of their defects. The quality of services is an abstract and widespread concept due to its characteristics: non-touch, homogeneity, non-separability, perishability, etc. In this case, we cannot define quality in an objective way by using the technical specifications of manufacture, but we can analyze it only by observing how customers and the brand service provider perceive the brand of the latter. This definition is

similar to the definition of contentment, as he said Parasuraman and others (1988) However, these writers consider that the difference between them lies in the fact that the first compares between comprehensive judgment and the attitudes of the customer, while the second (satisfaction) compares between comprehensive judgment and the importance of exchange.

The authors add in this regard by saying that the expression of comparison varies with regard to quality and satisfaction. With regard to the first: the reference point is within the meaning of the needs and desires of consumers, and on the contrary, satisfaction takes into account expectations within the meaning of predicting what the brand's service will result in. Preparing a perception and measurement of the perceived quality of the brand service is a matter of controversy and contradictions in the service marketing literature. The results of these arguments led to the proposal of two models: a model **SERVQUAL** and model **Gronroos**.

## **2- The Quality Perceived Brand Service Model:**

### **2-1- The quality-perceived brand service model SERVQUAL:**

The experimental work that was set up in France by Eiglier and Langeard (1987) and in the USA Zeithaml et al. (1990) enabled the identification of ten components that determine service quality perceptions. Sometimes we see that these perceptions are somewhat redundant, so it is the responsibility of the organization to transfer and arrange them according to the cases that are compatible with what the customer is satisfied with.

according Lambin (2005) reported that Parasuraman et al. refined (derive) these ten dimensions by breaking them down into 100 indicators. After a set of various procedures that included lowering and filtering the ladder, they reached to identify five other independent dimensions, related to criteria that enable the customer to judge the brand service provided.

These dimensions are as follows:

\* **Tangibility:** From the physical composition, the appearance of the person providing the brand service.

\* **Reliability (credibility):** Evaluating the ability of the trademark service provider to provide the trademark within the specified deadlines.

\* **Responsiveness:** Willingness to help customers and provide timely service. This dimension is especially evident in the case of customer requests, questions, complaints and problems.

\* **Assurance:** The matter here is the competence (management skill) in meeting the brand service, the courtesy, the inspiring confidence on the part of the brand service provider.

\* **Empathy:** The brand service provider works hard to know the desires of his customers.

The author adds in this point by saying that reducing the number of dimensions of perceived quality of service, the brand, negatively affected the clarity of the definitions of these dimensions, as it shrunk to five criteria only, but this does not detract from its importance. This model has been widely spread at the level of scientific groups in institutions, however there are some unanswered questions. For example Cronin and Taylor (1992) considered that the practical research of perceived quality based on perceptions and expectations; It caused a kind of confusion between the concept of satisfaction and "expectations".

### **1-2-2- The Service-Aware Quality Model The trademark of Gronroos:**

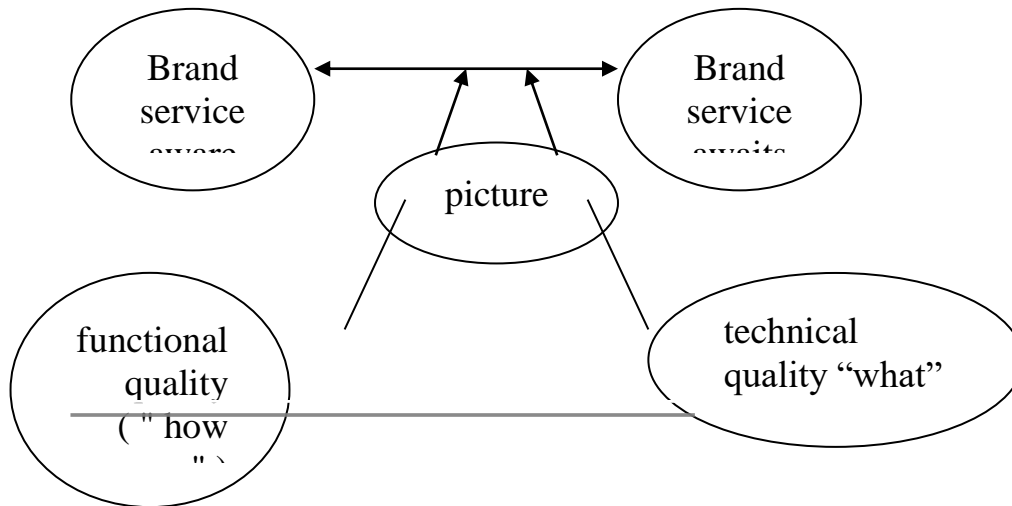
Gronroos (1990) proposed another dimension of service quality, in which he divided brand service quality of perceived brand into two dimensions: technical dimension and functional dimension. The technical dimension relates to the content ("what") of the brand service the

**Measuring the quality of health service on the confidence and satisfaction of patients in private health clinics Case study: a private health clinic (Azzouni) in Tlemcen.**

---

brand provides to the customer, and the functional quality relates to the way (“how”) the customer analyzes, similar to the treatment reserved for the customer by the brand service provider of the brand, the influence of other consumers. .etc. According to this writer, the quality tested by the consumer is judged by relying on these two dimensions. Here, the image of the service institution intervenes, as it plays the role of a modified duster.

**Fig (1):The Perceived Brand Service Quality Model**



Source: According to the model Gronroos

Similar to what it came with Zeithaml, Parasuraman and Berry Gronröos defines perceived quality of brand service as the difference that exists between customers' expectations of brand service provided and real brand service as perceived.

Through this model we said that Gronröos has attached great importance to the image of the service institution, because he considers it one of the modifiers (mediators) of this relationship. According to the author, this means that the brand image of the brand service provider has a direct impact on the perceived efficiency of the latter, and he emphasizes that when the brand service provider has a positive brand image, this means that the small problems stemming from the brand service brand do not care The customer, but if these mistakes are repeated, this would destroy this image.

**3- literature review about the impact of service quality dimensions on perceived quality, trust and satisfaction:**

The studies conducted by Rust and Zahorik (1993) show that customer loyalty is greatly affected by the quality of services provided (Bergeron, 2001). There are many customers for whom the word quality means the best and suitable for use, while customers may differ in their needs and expectations when searching for the quality of the required services and how they take judgment on them. Service quality is strongly related to the needs and expectations of the individual, and this is what leads us to an important idea in assessing quality from the perspective of service marketing, which is perceived service quality (Al-Damour, 2005, p. 436). In this context, some definitions of service quality have been developed It is the focus

on the consumer (the beneficiary-based approach: it is one of the most important entrances, as it depends on the consumer's satisfaction with the goods and services provided and to what extent they meet his (consumer's) desires, needs and expectations. The principles of this approach are consistent with the concepts of quality for a number of Researchers such as Deming and Vigenium, where Deming believes that quality is directed to satisfy the needs of the consumer in the present or the future. The quality of service is "that difference that separates the customer from service and quality. which is calculated after using the service or after providing it to him"<sup>22</sup>It is considered the concept of quality is one of the concepts that is surrounded by some ambiguity and its concept differs from one context to another, and researchers have touched on it from more than one angle, and this has led to the diversity and multiplicity of definitions of this concept.

The service model is made according to the North American Schools known as the SERVQUAL Model consists of five dimensions of service quality and relates to: tangibility, reliability, responsiveness, trust and empathy (Parasuraman, Zeithaml, and Berry, 1988, Nam et al, 2011). Although academics have applied the SERVQUAL model, the validity of the model is questionable. This raises several aspects of difference, the most important of which is the exact number of dimensions and their suitability for a specific sector of services (Buttle, 1996, Nam et al, 2011). According to the North School view, service quality consists of two dimensions: technical quality and functional quality (Gronroos, 1984, Nam et al, 2011). Artistic quality the technical output (what the beneficiary receives as a result of his dealings with a specific service organization) is the net result of service evaluation, while the functional quality refers to how the service is provided and is the personal evaluation of service interaction. Empirical studies (eg Brady & Cronin, 2001; Ekinici, 2001; Madanoglu, 2004; Mels, Boshoff, and Nel, 1997, Nam et al, 2011) indicate that the two-dimensional QoS model presented by the North School is more valid when Its application to hospitality services.<sup>23</sup>

There is no agreement on the criteria for selecting characteristics that enable the enterprise to measure objective quality, which causes a problem for the enterprise. And he pointed out Ersic et al. (2012) that objective quality does not have the ability to impose itself and the quality of assessments is mostly subjective.<sup>24</sup> knewLadwein (2003) Perceived quality as "the psychological state resulting from various evaluation processes"<sup>25</sup>. It is a judge or a personal appreciation of the customer, in the sense that if the customer's perception of the results coincides with their expectations for him, then he will be satisfied. When the service.

Become poor, then the customer will be dissatisfied with the service.

From this definition, we conclude that the customer evaluates the performance of the product (its actual quality) compared to the expected quality, on the basis of which the product or brand was chosen from among the alternatives. He then issues a positive or negative judgment on the result of this last evaluation, and the customer generates a certain feeling, whether satisfied or dissatisfied. . Among the studies conducted by Olsen (2002)<sup>26</sup>And Darsonom Junaedi (2006), the relationship between perceived quality and satisfaction was addressed, and according to the results of the studies conducted by these



## **Measuring the quality of health service on the confidence and satisfaction of patients in private health clinics Case study: a private health clinic (Azzouni) in Tlemcen.**

---

researchers, there is a positive relationship between customer satisfaction and the perceived quality of service, and it has been emphasized that the latter is one of the determinants of customer satisfaction. Vanhamme (2002) defined satisfaction as “the end result of the evaluation made by the consumer during the exchange process.”<sup>27</sup> Chun and Davies (2006) found that according to the Dis-Confirmation Of Expectations theory developed by Oliver (1980, 1993), there is customer satisfaction when the actual performance of the brand exceeds and/or confirms the customer's expectations before purchasing.<sup>28</sup> On their part Tse and Wilton (1988) define Satisfaction as the customer's response to assessing the perceived gap between previous expectations and actual performance.<sup>29</sup>, with predictions that are predictions about what will happen in the future. Through our definition of service quality dimensions (SERVQUAL), perceived quality, and customer satisfaction. We conclude that these variables share the idea of a comparison between expectations and the actual performance of the product. The researchers have devoted a great deal of effort and time to drawing a model on the perceived quality of service and customer satisfaction, and they have emphasized the study of the interrelationships that end up in a form of purchasing behavior.<sup>30</sup> Based on the foregoing, we propose the following five hypotheses that assume that service quality dimensions positively affect customer satisfaction:<sup>31</sup>

**H.1:** The reliability of perceived quality of service positively affects customer satisfaction;

**H.2:** Tangible perceived quality of service positively affects customer satisfaction;

**H.3:** Responsiveness positively affects customer satisfaction.

**H.4:** Assurance of service positively affects customer satisfaction;

**H.5:** Empathy in perceived quality of service is positively related to customer satisfaction;

In general, quality meets expectations, and is divided into objective quality and perceived quality. Objective quality is conformance to predetermined criteria (Zeithaml, 1988; Lien et al, 2015). On this basis, there is no agreement about standards, and the selection of characteristics that measure objective quality causes trouble. Objective quality has no validity and the quality of assessments is mostly subjective (Ersic et al, 2012). This view has reinforced the importance of perceived quality, which is the second type of quality. Perceived quality is a customer's overall evaluation of a product or brand's quality, its conformity to standards and the fulfillment of its tasks (Olsen, 2002). Perceived quality is, in fact, a relative concept and changes according to people's experiences and expectations (Prasuraman et al, 1988; Linda-Ueltschy, et al, 2009). Within the research conducted by Olsen (2002) Darsono and Junaedi (2006), the relationship between perceived quality and satisfaction was addressed, and according to the results of the studies conducted by these researchers, a positive relationship was found between perceived quality and satisfaction, so that it was confirmed that perceived quality is a determinant to satisfaction. However, there has been significant debate in the literature regarding the nature of satisfaction as an important variable and its relationship with other variables (Murray & Howat, 2002; Benachenhou et al, 2017). Indeed, researchers have given a great deal of time and effort to modeling perceived quality of

service and customer satisfaction, as well as in investigating interrelationships that ultimately end in the form of purchasing behavior (i.e., behavioral intentions, fulfillment and word of mouth) (Brady & Robertson, 2001). All of the above leads us to propose the following sixth hypothesis: Indeed, researchers have given a great deal of time and effort to modeling perceived quality of service and customer satisfaction, as well as in investigating interrelationships that ultimately end in the form of purchasing behavior (i.e., behavioral intentions, fulfillment and word of mouth) (Brady & Robertson, 2001). All of the above leads us to propose the following sixth hypothesis: Indeed, researchers have given a great deal of time and effort to modeling perceived quality of service and customer satisfaction, as well as in investigating interrelationships that ultimately end in the form of purchasing behavior (i.e., behavioral intentions, fulfillment and word of mouth) (Brady & Robertson, 2001). All of the above leads us to propose the following fifth hypothesis:<sup>32</sup>

**H.6:** The brand's perceived quality will have a positive impact on customer satisfaction.

And in the same vein, he knew Moorman et al. (1993, p. 315) brand trust as the average consumer's willingness to rely on the brand's ability to perform its stated function. Ashley and Leonard, (2009) have indicated that consumers develop brand trust based on positive beliefs about their expectations of the organization's behavior and the performance of the products that represent the brand. According to Flavia et al. (2006) the development of satisfaction follows a process similar to that associated with customer trust. Because unsatisfied customers with a brand is very difficult to gain their trust. In this context, trust can affect customer satisfaction. Anderson and Sullivan (1993) defined satisfaction as an emotional consumer state that results from an all-encompassing evaluation. In the same vein, a number of thinkers have noted that, according to social exchange theory (see Blau, 1964), the results of trust ratings directly influence perceptions of satisfaction (Gwinner, Gremler, and Bitner, 1998; Singh and Sirdeshmukh, 2000). Several studies cited in the literature have considered brand trust as a predictor of brand loyalty, and if consumer brand trust is established, consumers will be satisfied (Chaudhuri and Holbrook, 2001; Aysel, et al., 2012). Berry (2000) mentioned that trust is an important component of satisfaction. In this regard, Yoon and Kim (2002) studied the relationship between customer confidence in the brand and their satisfaction with it, and the results of the study concluded that there is a significant positive relationship between them.<sup>33</sup>. All these ideas and literary studies mentioned lead us to propose the following seventh hypothesis:

**H.7**Customer confidence positively affects brand satisfaction.

#### **4- The practical framework of the study:**

##### **4-1- Data collection and sample characteristics:**

To verify the hypotheses of the study, we chose to apply the structural equations method, which aims to test the simultaneous relationships between the six qualitative variables of the study [perceived quality and dimensionsSERVQUAL]. To measure these variables and collect data, we used a questionnaire consisting of 55 items, and to find out their opinions about the latter, the respondents had to use Likert's seventh scale [1 definitely agree to 7 definitely disagree]. The field study we conducted on a sample of 208 clients of the private health clinic located in Mansoura in Tlemcen, where the number of males reached 89 [42.78%] and females 119 [57.22%], most of them from Tlemcen. And they were of different ages so that the most present age group ranged between 30 and 49 years [more than 50%]. And that more

**Measuring the quality of health service on the confidence and satisfaction of patients in private health clinics Case study: a private health clinic (Azzouni) in Tlemcen.**

---

than 25% of the sample whose age is less than or equal to 30 years. As for the monthly wage of the studied sample, it is approximately 70% whose wage exceeds 30,000 DZD.

**4-2- Exploratory analysis of data**

Once the data is collected, the first step is to analyze the validity and reliability of the measures (items) before testing the model. So we use a program SPSS.23, in the exploratory factor analysis to test the reliability of the 55 items included in the form Table 1, summarizes for us the most important statistical indicators that we need to test the validity of the scales.

**Table (2): The results of the exploratory factor analysis**

theoretical model variables	arithmetic mean	$\sigma$	$\alpha$ for Cronbach	KMO
Reliability fiab	2,19	1,443	0,76	0,75
Tangibility TANG	2,38	1,784	0,78	0,77
Response RESP	2,40	1,601	0,80	0,75
Safety SAFE	2,14	1,235	0,81	0,81
Empathy EMPT	2,05	1,242	0,74	0,75
Conscious quality QUAL	2,30	1,431	0,83	0,81
Trust TRUST	2,27	1,075	0,85	0,82
the satisfaction SAT	2,29	1,044	0,93	0,91
<b>sum</b>		/	/	/

**Source: Prepared by researchers using a software package SPSS-23- (N=208)**

The results of the exploratory analysis were generally good: average responses according to a scaleThe seven-point Likert score was 6.13 [between 2.05 and 2.4], which indicates that most of the responses to the questionnaire items tended towards approval. Standard deviation ( $\sigma$ ) also had a value of less than 1.5 (except for tangibility and response which did not go far from that value) and thus indicates that there are no differences in the answers of the respondents. Cronbach's alpha is greater than 0.7, which indicates the reliability and stability of the vertebrae. The quality of the correlations between the paragraphs expressed as KMO was good as it was greater than 0.5. Overall, we say that the items of the questionnaire were sound and characterized by reliability and can be used in hypothesis testing.

**4-3- Confirmative factor analysis by modeling with structural equations:**

The goal of this analysis is to ensure that the theoretical model is consistent with the one tested using factorial saturations. The results showed that the measured variables can be used to measure the structural changes of the theoretical model of the study, where the global saturations were  $\ll$  Mostly more than 0.3, and it was significant because the t-test was significant ( $>1.96$ ). The scaling scales related to the deflection values were all negative and confined between 0 and -1, indicating that the torsion is negative and close to symmetry. As

for the measure of kurtosis, its value was close to zero, which indicates that the data has a normal distribution. The correlation coefficients and measurement errors summarized in Table 2 enabled us to determine the intensity of the effect of the independent variables (dependence, tangibility, responsiveness, assertiveness and empathy) on the dependent variable (total perceived quality) and to write the structural equation that summarizes the simultaneous correlations between the variables that make up the theoretical model of the research.

**Table (3): Relationships-regression between the variables of the study**

The direction of the relationship between the variables of the experimental model	Regression coefficient $\beta_i$	Statistic test T	Prob Level P	test result
(FIAB)-100->(QUAL)	0,208	3,244	0,001	acceptable
(TANG)-101->(QUAL)	0,525	8,709	0,000	acceptable
(RESP)-102->(QUAL)	0,228	3,579	0,000	acceptable
(SAFE)-103->(QUAL)	0,507	8,509	0,000	acceptable
(AMPH)-104->(QUAL)	0,025	0,369	0,712	rejected
(QUAL)-105->(TRUST)	0,804	19,136	0,000	acceptable
(TRUST)-106->(SATIS)	0,843	26,275	0,000	acceptable

Source: Prepared by the researchers using the program STAISTICA-0.8- (N=208).

#### 4-4- Testing hypotheses and discussing the results:

According to what we have reached from the results of the statistical test, there is a statistically significant correlation between the reliability of  $[\beta_1, \beta_2, \beta_3, \beta_4]$  and the tangibility, response and confirmation of the health service provided by the private health clinic and the quality perceived by the patient in this clinic. The result from Table 2 indicates that the regression relationships between service quality dimensions (except for empathy, which was not significant) and perceived quality are positive and confined between [0.208 and 0.525]. This result is consistent with previous field studies that confirmed the existence of these relationships, and we single out studies: StudySubchatUntachaia in Thailand (2013), Min Li et al. Model in China (2015), Mohebifar et al. Study in Iran (2016), Andaleeb study in USA (2001), Kalaja et al. Study in Albania (2016), Ismail et al. In Malaysia (2016). According to all of the above, we can say that the first, second, third and fourth hypotheses are correct and acceptable.

As for the effect of empathy on the perceived quality of the clinic by patients. As for the result of testing the fifth hypothesis about the positive effect of empathy for the health service provided by the private health clinic on the perceived quality of the patients, the value of  $[\beta_5=0,025]$  denotes the magnitude of the effect of service empathy (ampt) on the perceived quality of the private health clinic by the patient. Therefore, the result was non-significant and negative, which indicates that there is no relationship between sympathy and the perceived quality of the health clinic by the patient [H5:  $\beta_5=0,025$ ;  $T=0,369$ ;  $p>0.05$ ], and from this

## **Measuring the quality of health service on the confidence and satisfaction of patients in private health clinics Case study: a private health clinic (Azzouni) in Tlemcen.**

---

regard we conclude that the service-specific sympathy has no significant relationship with the perceived quality of services provided by the health clinic. That is, the result of this study contradicted the findings of researchers in previous studies, and we mention studies: SubchatUntachaia in Thailand (2013), the model of Mohebifar and others in Iran (2016), the study of Ismail and others in Malaysia (2016), the model of Mohebifar and others in Iran (2016), Ahmed et al. Study of Bangladesh (2017), Hussain et al. Study of Pakistan (2018), Andaleeb study of USA (2001), Wu study of Taiwan (2008), Kalaja et al. Of Albania (2016). In view of the result we reached and according to all of the above, we can say that the fifth hypothesis is rejected.

With regard to the sixth hypothesis, which proposed the existence of an effect of the perceived quality of the clinic by patients on their confidence in it, it was also valid and significant. [ $\beta_6 = 0.804$ ]. The result indicates that there is a significant direct relationship between the two variables and is consistent with the studies: SubchatUntachaia in Thailand (2013), the model of Min Li and others in China (2015), the study of Hussain, and others in Pakistan (2018), the study of Raposo in Portugal (2009), the study of Alrubaiee And Alkaa'ida in Malaysia (2011) Kessas model in Algeria (2016) . Therefore, we can say that the sixth hypothesis is correct.

Regarding the effect of patients' confidence in the clinic on their satisfaction with it, the result of the statistical test that we reached was significant. So that the result indicates that [ $\beta_7 = 0.843$ ] is positive, so we say that the relationship between the two aforementioned variables is a direct relationship. And it agrees with previous field studies that confirmed its existence, and we mention studies: Wu study in Taiwan (2008), Raposo study in Portugal (2009) Alrubaiee and Alkaa'ida study in Malaysia (2011) Kessas model in Algeria (2016). According to all of the aforementioned, we can say that patients' confidence in the private health clinic affects their satisfaction with it, which makes us accept the seventh and last hypothesis represented in (P.7: Patient's confidence in health services positively affects his satisfaction with them).

### **Conclusion:**

This study sought to know the extent of patients' confidence and satisfaction with the health services provided by private health clinics. Technological and scientific discoveries in the field of health, and the second objective represented in the previous studies that we touched on was to clarify the relationship between the dependent variables and the independent variables. Which our study model consists of, and among the most important results that we reached through this study are the following:

### **Results of the theoretical study:**

In the theoretical aspect, we focused on defining the research topic and its elements, and we also highlighted the role of variables that make up the subject of our research, represented in marketing services (defining service, its most important characteristics ... and others), marketing health services (defining health, health services ... and others), service quality, perceived service quality, as well as patients' trust and satisfaction.

**Field study results:**

By analyzing the correlation coefficients, we noticed that there are correlations between the independent variables, which are the dimensions of service quality (reliability, tangibility, response, assurance), and the median variable, which is the perceived quality of service, and between the two dependent variables, which are the patients' confidence and satisfaction with the service quality provided by this clinic. And that the empathy dimension had no effect on the perceived quality of the health service provided in the clinic.

**Weaknesses and limitations of the research:**

Our study had some shortcomings and limitations, because some patients did not pay enough attention to the questions we asked, that is, they did not read them well, although our study had a large sample of 208 patients, so the study sample should be chosen. It is related to the research and this is in order to give accurate results.

**Bibliography List:**

- Delene L, Bunda M, & Kim C, (2000), "Methods of measuring health-care service quality", *J Bus Res*, 48: p 233–246.
- Angelopoulou A, Kangis P, and Babis G, (1998), "Private and public medicine: a comparison of quality perceptions," *International Journal of Health Care Quality Assurance*, Vol:11, N: 1, pp 14-21.
- Al-Borie H, Sheikh Damanhour M, (2013), «Patients' satisfaction of service quality in Saudi hospitals: a SERVQUAL analysis», *International journal of health care quality assurance*, 26(1), p 20-30.
- <sup>1</sup>Sadigh S (2003), «Service quality in hospitals: more favorable than you might thinkSERVQUAL», 13(3), p197–206.
- Naidu A, (2009), "Factors affecting patient satisfaction and healthcare quality", *Int J Health Care Qual, Assur*, 22 (4), p366-381.
- Uguryavas, DonaldJ, Shemwell, (2001), «Modified importance-performance analysis: an application to hospitals», *International Journal of Health Care Quality Assurance*, Vol:14 N:3, pp104-110.
- Zineldine M, (2006), "The quality of health care and patient satisfaction: an exploratory investigation of 5Q model at some Egyptian and Jordanian medical clinics," *International Journal of Health Care Quality Assurance*, Vol: 19, N: 1, pp60 -92
- Fitzpatrick R, Hopkins A, (1983), "Problem in the conceptual framework of patient satisfaction research: an empirical exploration," *Social Health Illn* 5, p297-311.
- Cronin JJ, Taylor SA, (1992), "Measuring Service Quality: A Reexamination and Extension," *Journal of Marketing* 56(3), p 55-68.
- Parasuraman A, Zeithaml V & Berry L, (1988), «SERVQUAL: a multiple-item scale formeasuring consumer perceptions of service quality». *J Retail*, 64(1): p12-40.
- Pakdil, F., & Harwood, TN (2005). Patient satisfaction in a preoperative assessment clinic: an analysis using SERVQUAL dimensions. *Total Quality Management & Business Excellence*, 16(1), 15-30.
- Gremigni, P., Sommaruga, M., & Peltenburg, M. (2008). Validation of the Health Care Communication Questionnaire (HCCQ) to measure outpatients' experience of communication with hospital staff. *Patient education and counseling*, 71(1), 57-64.
- Abdelkader; Muhammad Nour Al-Taher Ahmed. Measuring the quality of health services in government hospitals in Sudan from the point of view of patients and auditors. (A field study

## Measuring the quality of health service on the confidence and satisfaction of patients in private health clinics Case study: a private health clinic (Azzouni) in Tlemcen.

---

- on major teaching hospitals in Khartoum State). *Jordan Journal of Business Administration*, 2015, 11.4 .
- Aliman, NK, & Mohamad, WN (2016). Linking service quality, patients' satisfaction and behavioral intentions: an investigation on private healthcare in Malaysia. *Procedia-Social and Behavioral Sciences*, 224(2016), 141-148.
- Meesala, A., & Paul, J. (2018). Service quality, consumer satisfaction and loyalty in hospitals: Thinking for the future. *Journal of Retailing and Consumer Services*, 40, 261-269.
- Aurier P, Benavet C et N'goala G (2004) « validité discriminante et predictive des composantes de la relation a la marque » ; in act of AFM, voir. [www.AFM.fr](http://www.AFM.fr).
- Ophuis O, et Trijp V (1995), in Jasi S (2000) ; The role of distribution in the perception of the quality of products among consumers is this science.
- Aaker AD et Lendrevie J (1994), "le management du capital marque", edition Dalloz.
- Kapferer JN (2000) "The Marques; capital de l'entreprise », 3 editions d'organisation.
- Jolibert A et Dubois PL in Bouroumana AEK (2004-2005) "the best performance and prize of the product" ; Memoire de magistère soutenu a l'université de mascara.
- Hamelin J (2002), "the confidence of consumers in leur attentes de prix: une application au changement de prix", in acts du congrès de l'association Française du marketing, Reims.
- Hamida Boudaoud, "The Impact of the Determinants of Perceived Quality of Services on Customer Loyalty," Akli Mohand Olhaj University, Maarif (international scientific journal), Bouira, No. 22, June, 2017, p. 225.
- <sup>1</sup>Hajj Sleiman MN, Benhamou A, and Ramadani M, (2018), "The Impact of Service Quality on Customer Satisfaction: An Empirical Study for Customers of the Algerian Foreign Bank," *Mecas Magazine*. Volume 1, Issue.14/2018, p.260.
- Ersic, A; Unal, S; Candan, FB and Yildirim, L (2012), «The effect of brand satisfaction, trust and brand commitment on loyalty and repurchase intentions», *Procedia - Social and Behavioral Sciences*, 58, pp.1395-1404
- Ladwin, R, (2003), "Le comportement de consommateur et de l'acheteur", édition economica, Paris, 2 ème édition, p.377.
- Ersic, A; Unal, S; Candan, FB and Yildirim, L (2012), «The effect of brand satisfaction, trust and brand commitment on loyalty and repurchase intentions», *Procedia - Social and Behavioral Sciences*, 58, pp.1395-1404.
- Vanhamme J, (2002), « La satisfaction of consommateurs spécifique a une transaction : définition, antécédents, mesures, et modes », Aspirante du fonds National de la recherche scientifique, Laboratoire d'analyse du comportement du consommateur, revue de l' Association Francaise de Marketing. Vol 17, n02, pp. 55-85
- Yi, Y & La, S. (2004). What influences the relationship between customer satisfaction and repurchase intention? Investigating the effects of adjusted expectations and customer loyalty. *Psychology Marketing*, 21(5), pp.351–374.
- Linda-Ueltschy, C., Laroche, M., Zhang, M., Cho, H and Yingwei, R. (2009). «Is there really an Asian connection? Professional service quality perceptions and customer satisfaction». *Journal of Business Research*. 62, pp.972–979.
- Brady, M., & Robertson, C. (2001). «Searching for consensus on the antecedent role of service quality and satisfaction: An exploratory cross-national study », *Journal of Business Research*, 51(1), pp.53-60. In Benachenhou SM, Izenasni A and Guerrich B, (2017), "Antecedents of Algerian Consumers' Brand loyalty: Testing a Structural Model of mobile service providers' customers", *Journal of Marketing and Consumer Research*, Vol.40, USA. pp.43-51.

Qassas Z and Ayyad L, (2018), “The Impact of Dimensions of Perceived Quality of Service on Customer Trust: A Case Study of Al Jazeera Telecom’s Customers”, Journal of Finance and Markets, Volume 5, Issue.10/2019, p.69.

Ben Achenhou Sidi Mohamed, (2018), “The Mediating Role of Satisfaction in Determining Customer Loyalty to a Brand: An Empirical Test with Avery Customers.” Al-Bashaer Economic Journal, Vol.4, No.1, p. -320. Bashar University.

Ayyad L. and Hilali A, (2018), “The Mediating Role of Customer Satisfaction in the Field of Tourism Services: An Empirical Test,” Al-Bashaer Economic Journal, Vol. 04, No. 02, p.120.

Kamri. Alla M , (2022), “Requirements For The Application Of Electronic Administration In Health Organizations Digitization Of The Health Sector In Algeria – A Model “Journal of Economic Integration Vol: 10 - N°: 04 pp: 159-174

---