

## ***The impact of Djezzy service quality in reaching the Customer's loyalty***

### ***Case study of a sample from Djezzy customers -Laghouat-***

***أثر جودة خدمات جازي في تحقيق ولاء الزبون: دراسة حالة عينة من زبائن جازي بالأغواط***

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#### ***Abstract:***

The present study aims to unveil the impact of the service quality provided by Djezzy in gaining its customer's loyalty. In order to reach the objectives of the study we adopted a method of survey through a questionnaire which was structured and distributed to a sample of Djezzy customers in the wilaya of Laghouat. We used SPSS program in the questionnaire data analysis using different statistical methods to show the results and test the hypotheses. Among the most important results obtained: There is a statistically significant effect of the service quality provided by Djezzy on its customers' loyalty; There are significant differences of Djezzy customers' loyalty due to the variable of educational level; There are no significant differences of Djezzy customers' loyalty due to the variables of gender, age, family status, and payment mode.

***Keywords:*** service, service quality, customer, loyalty, communications

#### ***المخلص:***

هدفت هذه الدراسة إلى الكشف عن الأثر الذي تلعبه جودة الخدمة المقدمة من طرف جازي في تحقيق ولاء زبائنهم. و قصد تحقيق أهداف هذه الدراسة تم الاعتماد على طريقة الاستقصاء عن طريق الاستبيان، و ذلك بتصميم استبيان و توزيعه على عينة من زبائن جازي بمدينة الأغواط، و قمنا باستخدام برنامج SPSS في تحليل بيانات الاستبيان مستخدمين في ذلك أساليب إحصائية مختلفة لعرض النتائج واختبار الفرضيات من أهم النتائج المتوصل إليها نذكر أبرزها كما يلي يوجد تأثير ذو دلالة إحصائية لجودة الخدمة المقدمة من طرف جازي في ولاء الزبائن هناك فروق ذات دلالة إحصائية لولاء زبائن جازي تعود إلى متغير المستوى التعليمي لا توجد فروق ذات دلالة إحصائية لولاء زبائن جازي تعود إلى متغيرات الجنس، العمر، الحالة العائلية و نمط للاشتراك

***كلمات مفتاحية:*** الخدمة، جودة الخدمة، الزبون، الولاء، الاتصالات

***Introduction:***

Today's Algerian economy is witnessing a very large competition, where every single enterprise is hoping to acquire the domination over the greater market share and aiming to increase the number of its customers as much as possible. This fact makes these enterprises face a lot of difficulties since it became impossible to impose a product or even a service on the customer without his / her consent which resulted in an additional marketing effort in order to face the issue.

Oracom Telecom Algeria's product "Djezzy"<sup>1</sup>, like many other Algerian enterprises actually lives in a strong competition with other operators, the fact that obliged it to do steady steps to build the customer's trust and achieve the customers' commitment and satisfaction with its services and this leads to the loyalty of the customers. All this is done through giving more importance and care to the service quality provided to the customer.

From this standpoint we can tackle the following issue: **Is there an impact of service quality provided by Djezzy on its customers' loyalty?**

In order to answer this question we divided this study into two sections: a theoretical section in which we tried to explain different concepts related to service quality as well as loyalty, and a practical section, in which we analyzed a sample of Djezzy customers' viewpoints by using the method of survey through questionnaire.

***I- The theoretical conceptual framework:***

In this section we try to provide general theoretical concepts on the service quality as well as customers' loyalty so that this study will be fitted with the necessary theoretical background that will help do the analysis in the practical section.

***I-1- The service quality:***

***I-1-1- The service quality definition:***

The definition of service quality should concentrate on what the customer will expect from obtaining the service, in other words, how far this service is able to satisfy the actual customer's need. Kotler defined it as "any behavior or act based on a contact between two parties: the provider and the receiver, and the essence of this reciprocal process is intangible"<sup>2</sup>.

It was also defined by Parasumaran and Zeithaml as “the degree and direction of discrepancy between customers’ service perceptions and expectations”<sup>3</sup>.

Most modern definitions of the service quality tend to present it as being a kind of scale to test to what extent the real and actual performance of service matches with the customers’ expectations. The service quality is the difference between customer’s expectations and his / her consciousness of the actual performance which determines the level of the quality or the so-called gap. Also, the service quality can be mathematically defined as follows:

**The service quality= the customer’s consciousness of the actual performance – the customer’s expectations of the service performance.**

#### ***1-1-2- Service quality dimensions:***

A group of researchers concluded that there are ten basic dimensions customers build their expectations and perceptions on and therefore their judgment on the service quality. We can summarize them to five principle ones as follows<sup>4</sup>:

- 1- Tangibility:** It represents the material facilities such as equipments and means of communication since the service quality is generally assessed by the customer through tangible things.
- 2- Reliability:** means the ability to accomplish a service accurately and correctly which can be relied on.
- 3- Responsiveness:** It is the flexibility or the ability to meet the customers’ urgent needs quickly as well as continually helping them upon request.
- 4- Assurance:** It is the ability to gain the customer’s trust and make them feel safe and secure that is to say to make the transactions devoid of any uncertainty and risk.
- 5- Empathy:** It is the ability to understand the customer and take care of him / her.

#### ***1-2- Loyalty:***

Here we will address the concept of loyalty in terms of definition as well as its levels.

***I-2-1- loyalty definition:***

Loyalty is considered as a key element among the elements of the enterprise because of its great importance for its growth and survival, that is why enterprises are working hardly to increase the loyalty levels of their customers by satisfying them and keeping a closer eye on the development of their needs and desires (they do so by exploring their views regularly concerning their marketing program and what its services should be like in terms of new designs, continual improvements, prices appropriateness, the modern and creative methods of promotion and distribution) because the customer became more conscious and his demands and needs increased.

Loyalty definitions varied from one to the other since it has been defined as: « a measuring scale to measure the degree and frequency of re-purchase of a certain mark by the customer »<sup>5</sup>.

Brown defined it as: « the expected purchase of a certain mark based on a previous positive experience »<sup>6</sup>. And this definition clarifies that loyalty is a behavior related to a positive direction towards the trademark. Mown defined it as : « a customer's positive attitude toward the mark as well as his/her commitment and intention to pursue its purchase »<sup>7</sup>.

However Kotler defined it as : « the customer's measure and his longing for a interchangeable participation in the enterprise's activities »<sup>8</sup>. From this definition we can notice that Kotler concentrated on the positive correlation between the customer and the enterprise.

Though Wallace and others, in 2004, considered loyalty as being : « a strategy that aims to increase the customers' satisfaction as well as increasing their motivation to the purchase and affiliation to deal with the same enterprise and not any other competing one »<sup>9</sup>. While Morris and others suggest that loyalty is: « the full performance by sellers and suppliers and keeping the promises the enterprises gave to their customers »<sup>10</sup>.

Uncles, Dowling and Hammond stated in their paper concerning loyalty that: "At a very general level, loyalty is something that consumers may exhibit to brands, services, stores, product categories (e.g., cigarettes), and activities (e.g., swimming). Unfortunately there is no universally agreed definition (Jacoby and Chestnut 1978; Dick and Basu 1994; Oliver 1999). Instead, there are three popular conceptualizations: loyalty as primarily an attitude that sometimes leads to a relationship with the brand; loyalty mainly expressed in terms of revealed

behavior (i.e., the pattern of past purchases); and buying moderated by the individual's characteristics, circumstances, and/or the purchase situation »<sup>11</sup>.

Furthermore, Ajao and others suggest that customer loyalty can be defined as the adherence of customers to a company. Even if businesses make mistakes, loyal customers will not leave. Kincaid defines customer loyalty "as a consumer behavior, built on positive experience and value, which leads to buying products, even when that may not appear to be the most rational decision". They also add that, the concept was later divided in to behavioural and non-behavioural dimensions where the latter is more focused on the underlying causes of customer loyalty and attitudes of consumers<sup>12</sup>.

### ***1-2-2- Loyalty levels:***

As a matter of fact there is no such a thing as a strong loyalty or a weak loyalty. Loyalty is a concept of graduality from strength to weakness and this is shown through the levels of loyalty. These levels can be clarified by the so-called matrix loyalty<sup>13</sup>. This matrix divides the loyalty levels according to the degree of attachment of the customer or the frequency of the purchase of the product or trademark as well as the level of his loyalty and his attachment to the enterprise. As shown in figure 02 from which we can explain these levels<sup>14</sup> :

- 1- High and distinctive loyalty:** when the customer has a high level of loyalty and is emotionally attached to the product or the trademark and intends to remain a faithful customer to the enterprise.
- 2- Latent loyalty:** here the customer is attached to the trademark or the enterprise but hasn't thought yet of pursuing to deal with it, he/she is considered as an opportunity to the enterprise that should be exploited.
- 3- Forced loyalty :** here the customer has the intention of continuing in dealing with the enterprise and repeating the purchase but has no strong emotional attachment, it should be dealt with this kind of customers with care because there is a possibility that he/she abandons dealing with the enterprise in the long term.
- 4- Disloyalty:** here the customer is classified in the lower level of loyalty because he feels no attachment to the trademark and has no intention to remain as a customer of the enterprise; in this case there is no need to put strategies or programs of loyalty.

**Figure (01): Loyalty matrix**

		Repeat purchase	
		High	Low
Relative attitude	High	True loyalty (High)	latent loyalty
	Low	Spurious loyalty (Forved)	No loyalty (Disloyalty)

Source: Robert East and others, "Consumer loyalty", (Australian marketing journal, 13 (2) , 2005), P.12

## ***II- Field framework (practical side):***

In this part we try to concretize the theoretical background by unveiling the impact of the service quality provided by Djezzy on its customers' loyalty.

### ***II-1- Methodology of the study and testing the tool:***

Here we try to exhibit the methodology followed to accomplish the study where we will proceed with the way this study was designed through highlighting the problem of the study and the hypotheses of the proposed model, then we define the population and sample of the study and the tool used in collecting the primary data. Later on we highlight the tools for statistical treatment used in the analysis of the data and at last we test the tool for investigation in order to ascertain to what extent it is reliable.

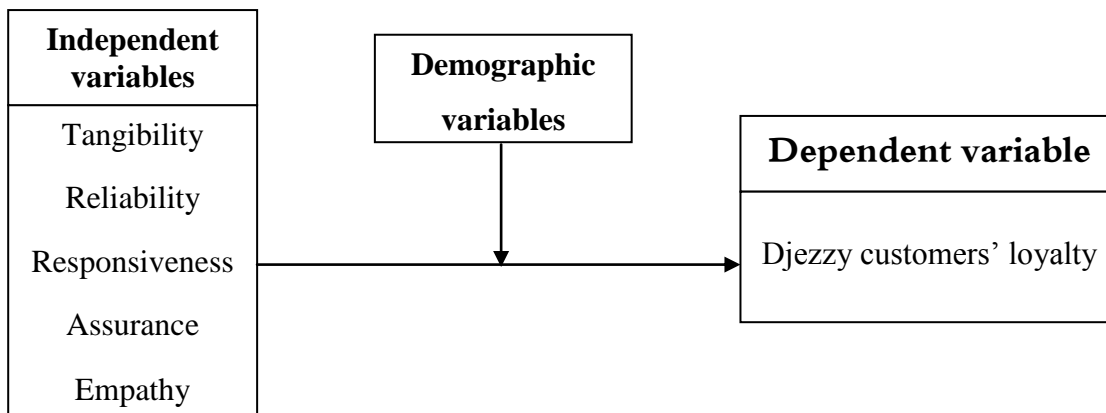
#### ***II-1-1 Planning of the study:***

**1- The problem of the study:** the problem can be stated as follows:

Is there a statistically significant impact of Djezzy service quality on its customers' loyalty at the 0.05 level?

**2- Research model:** we divide the variables into two types as shown in figure (02).

**Figure (02): Research model**



**Source** : from the researcher's previous studies

- a- The independent variable: Djezzy service quality encompasses the five dimensions of quality (tangibility, reliability, responsiveness, assurance, and empathy) that impacts on the dependent variable.
- b- The dependent variable: That is Djezzy customers' loyalty.

**3- The hypotheses of the study:** from the sample of the study we can state the following hypotheses:<sup>15</sup>

**The first main hypothesis:**

H<sub>1</sub>: There is a statistically significant impact of Djezzy service quality on its customers' loyalty at the 0.05 level.

From this hypothesis five sub-hypotheses branch out:

- H<sub>1</sub>: There is a statistically significant impact concerning Tangibility on Djezzy customers' loyalty at the 0.05 level.
- H<sub>1</sub>: There is a statistically significant impact concerning Reliability on Djezzy customers' loyalty at the 0.05 level.
- H<sub>1</sub>: There is a statistically significant impact concerning Responsiveness on Djezzy customers' loyalty at the 0.05 level.
- H<sub>1</sub>: There is a statistically significant impact concerning assurance on Djezzy customers' loyalty at the 0.05 level.

- H<sub>1</sub>: There is a statistically significant impact concerning empathy on Djezzy customers' loyalty at the 0.05 level.

**The second main hypothesis:**

H<sub>1</sub>: There are significant differences among Djezzy customers' loyalty due to the variable of gender at the 0.05 level.

**The third main hypothesis:**

H<sub>1</sub>: There are significant differences among Djezzy customers' loyalty due to the variable of age at the 0.05 level.

**The fourth main hypothesis:**

H<sub>1</sub>: There are significant differences among Djezzy customers' loyalty due to the variable of educational level at the 0.05 level.

**The fifth hypothesis:**

H<sub>1</sub>: There are significant differences among Djezzy customers' loyalty due to the variable of marital status at the 0.05 level.

**The sixth hypothesis:**

H<sub>1</sub>: There are significant differences among Djezzy customers' loyalty due to the variable of payment mode at the 0.05 level.

***4- Scope and limits of the study:***

**Time:** from 11/02/2016 to 15/03/2016.

**Place:** this study concerns a sample of Djezzy customers in the Wilaya of Laghouat.

**II-1-2- The design and execution of the study:**

**1- The population and sample of the study:** the population being studied represents all of Djezzy customers from all over the country and we took as a sample some of the customers from Laghouat chosen at random, it comprised 186 customers.



**2- Data collection method:** in this study we used the method of survey through questionnaire during the primary data collection. The questionnaire has been designed and divided into 2 parts:

- **The first part:** concerns the personal data of the participants (gender, age, educational level, marital status, mode of payment, and term subscription).
- **The second part:** contains: the independent variables that represent the dimensions of the service quality that are: tangibility, reliability, responsiveness, assurance, and empathy. Each dimension includes 4 items. The dependent variable that constitutes Djezzy customers' loyalty includes 6 items. We have also used Likert's<sup>16</sup> five degrees scale to assess the participants' answers, so we gave a number to each degree of the scale in order to facilitate the statistical analysis process. It goes as follows: strongly agree (5), agree (4), neutral (3), disagree (2), strongly disagree (1).

**3- Data analysis methods:** we used SPSS 19 program in the process of statistical analysis of the data and testing the hypotheses, it included the following statistical methods:

- Cronbach's Alpha coefficient in order to test the reliability of the tool of the study.
- Frequencies and percentages in order to display the sample's characteristics.
- Arithmetic average and standard deviation to determine the directions of the participants' answers.
- The model of simple and multiple linear regressions to test the first main hypothesis and its divergent sub-hypotheses.
- Independent samples t-test to testing the second and sixth main hypotheses.
- One-Way ANOVA to test the third, fourth and fifth hypotheses.

**4- The conditions of the preparation and execution process of the questionnaire:**

We have structured the questionnaire going through stages; the first draft of the questionnaire was structured and corrected by a number of teachers and some of Djezzy employees. After taking their remarks and directions into considerations we corrected it.

In the second stage we proposed the questionnaire to a sample of 200 participants, 192 of them have answered and returned theirs. However, after the revision and correction we only

kept 186: we omitted 6 because 4 of them were incomplete and 2 contained contradictory answers.

**II-1-3- Testing the reliability of the study tool :**

In order to ascertain how reliable our study tool (the questionnaire) is, we calculate the value of Cronbach's alpha<sup>17</sup> coefficient by using SPSS program, we obtained the following results:

**Table (01) : Cronbach's Alpha**

**Reliability Statistics**

Cronbach's Alpha	N of Items
,902	26

**Source :** *SPSS 19 output.*

We can notice from the table above that Cronbach's Alpha coefficient equals ( $\alpha=0.902$ ). Therefore, we can say that the study tool is very reliable and totally credible which means that we can rely on this questionnaire in the measurement of the variables being studied. Hence, we can generalize the results of the questionnaire on all the population being studied.

*II-2- The results of the study and testing the hypotheses:*

*II-2-1- Sample's characteristics:*

**Table (02): Sample's characteristics**

Variable	The variable categories	Frequency	Percentage
Gender	Male	104	55,9 %
	Female	82	44,1 %
	Total	186	100 %
Age	Under 20 years	78	41,1 %
	20 – 39	69	37,1 %
	40 – 59	23	12,4 %
	60 years and above	16	8,6
	Total	186	100 %
Educational level	Intermediate	25	13,4 %
	Secondary	72	38,7 %
	Undergraduate	89	47,8 %
	Total	186	100 %
Marital status	Single	111	59,7 %
	Married	69	37,1 %
	Others	6	3,2 %
	Total	186	100 %
Payment mode	Prepayment	149	80,1 %
	Post payment	37	19,9 %
	Total	186	100 %
Subscription period	Less than 1 year	25	13,4 %
	From 1 to 3 years	51	27,4 %
	From 4 to 5 years	50	26,9 %
	From 6 years and more	60	32,3 %
	Total	186	100 %

*Source: done by the researcher in the light of SPSS 19 output.*

In order to determine the characteristics of the sample of the study we represented the data of the first part related to the personal data that defines the characteristics of the study sample using SPSS 19 program, as shown in table (02) :

- 1- Gender:** the above table shows that the number of males in the study sample is 104 out of 186 which represents 55.9%, while the number of females is 82 out of 186 which represents 44.1%, these are almost the same percentages in the population of the study.
- 2- Age:** the above table clarifies that the dominant category in the sample is the category (less than 20 years) 78 out of 186 which represents 41.1% while the least represented group is the one (more than 60 years) 16 out of 186 which represents 8.6% and this is because of the fact that the proportion of young people in the population is prevailing.
- 3- Educational level:** the above table shows that the dominant category in the sample is the category of the undergraduate 89 out of 186 which represents 47.8%, while the least represented category in the sample is the one of intermediate level or 25 out of 186 which represents 13.4% and this goes hand in hand with the population of study because during the last 20 years the percentage of illiteracy decreased.
- 4- Marital status :** the above table shows that the dominant category is the category of singles 111 out of 186 which represents 59.7%, while the least represented category is the third one (widowers, divorced “others”) 6 out of 186 which represents 3.2%.
- 5- Payment mode :** the above table shows that the number of participants in the category of (pre-payment) in the study sample is 149 out of 186 which represents 80.1% while the number of participants in the category (post-payment) 37 out of 186 which represents 19.9%.
- 6- Subscription period :** the above table shows that the dominant category in the sample is the category of 6 years and above 60 out of 186 which represents 32.3% while the category the least represented in the sample is the category (less than one year) 25 out of 186 which represents 13.4%.

#### ***II-2-2- Study results display:***

We display the study results through the tables of the directions of the items constituting the questionnaire.

**1-The direction of the items of the first axis (tangibility) :**

**Table (03): The direction of the items of the first axis (tangibility)**

Number	Items	Mean	Std. Deviation	Direction
01	Djezzy agency owns modern equipments and technical material	4,06	0,490	Agree
02	The external appearance of Djezzy agency is very attractive.	4,03	0,605	Agree
03	The decoration and furniture of Djezzy agency is considered very appropriate and attractive.	4,04	0,644	Agree
04	Djezzy employees are characterized by a neat and good appearance.	4,05	0,711	Agree
<b>The average of the first axis items</b>		<b>4,05</b>	<b>0,431</b>	<b>Agree</b>

*Source:* done by the researcher in the light of SPSS 19 output

It is clearly shown from the above table that there is a general agreement concerning tangibility (4.05) and the less agreed percentage was on the item n<sup>o</sup> 02 (4.03) and the more agreed percentage was on the item n<sup>o</sup>01 (4.06). As we notice, the fourth item is the less homogenous in their excluded answers with the standard deviation (0.711), while the item the more homogenous is the first item with the standard deviation (0.490).

**2- The direction of the items of the second axis (reliability):**

**Table (04): The direction of the second axis items (reliability)**

Number	Items	Mean	Std. Deviation	Direction
05	Djezzy offers services that match with your needs and desires.	4,22	0,812	Strongly agree
06	Djezzy guarantees a good coverage over its network.	3,75	0,591	Agree
07	Djezzy staff shows a real interest in resolving potential problems of its customers.	4,15	0,529	Agree
08	Djezzy staff is committed to providing services in the agreed deadlines.	4,47	0,532	Strongly agree
<b>The average of the second axis items</b>		<b>4,15</b>	<b>0,358</b>	<b>Agree</b>

*Source:* done by the researcher in the light of SPSS 19 output

The above table shows that there is a general agreement concerning reliability (4.15) and the less agreed percentage was on the item n<sup>o</sup>06 (3.75) and the more agreed percentage was on the item n<sup>o</sup>08 (4.47). As we also notice, the fifth item is the less homogenous in their excluded answers with the standard deviation (0.812), while the item the more homogenous is the seventh item with the standard deviation (0.529).

**3-The direction of the items of the third axis (Responsiveness):**

**Table (05): The direction of the items of the third axis (Responsiveness)**

Number	Items	Mean	Std. Deviation	Direction
09	Djezzy employees are always ready to provide services	4,09	0,527	Agree
10	Response to customers requests is usually immediate	3,45	0,530	Agree
11	Djezzy staff is strict in determining the time of completing a service	3,96	0,573	Agree
12	One of Djezzy priorities is the immediate response to the customers' requests	4,30	0,536	Strongly agree
<b>The average of the third axis items</b>		<b>3,95</b>	<b>0,431</b>	<b>Agree</b>

**Source:** done by the researcher in the light of SPSS 19 output.

The above table shows that there is a general agreement concerning responsiveness (3.95) and the less agreed percentage was on the item n<sup>o</sup>10 (3.45) and the more agreed percentage was on the item n<sup>o</sup>12 (4.30). As we also notice, the eleventh item is the less homogenous in their excluded answers with the standard deviation (0.573), while the item the more homogenous is the ninth item with the standard deviation (0.527).

**4-The direction of the items of the fourth axis (Assurance):**

**Table (06): The direction of the items of the fourth axis (Assurance)**

Number	Items	Mean	Std. Deviation	Direction
13	Djezzy employees behavior gives an impression of trust and security	3,29	0,793	Neutral
14	When dealing with Djezzy you feel safe	3,16	0,676	Neutral
15	Djezzy employees are very tactful and behave well with their customers	3,49	0,562	Agree
16	Djezzy employees have the proficiency and the ability to take care of the customers' needs	3,30	0,646	Neutral
<b>The average of the fourth axis items</b>		<b>3,31</b>	<b>0,346</b>	<b>Neutral</b>

*Source : done by the researcher in the light of SPSS 19 output.*

The above table shows that there is neutrality in the answers concerning assurance (3.31) and the less agreed percentage was on the item n<sup>o</sup>14 (3.16) and the more agreed percentage was on the item n<sup>o</sup>15 (3.49). As we also notice, the thirteenth item is the less homogenous in their excluded answers with the standard deviation (0.793), while the item the more homogenous is the fifteenth item with the standard deviation (0.562).

**5-The direction of the items of the fifth axis (Empathy):**

**Table (07):The direction of the items of the fifth axis (Empathy)**

Number	Items	Mean	Std. Deviation	Direction
17	Djezzy employees have personal interest in their customers	3,92	0,704	Agree
18	Djezzy puts the customers' interest above all else	3,77	0,482	Agree
19	Djezzy staff understands the specific needs of the customers	3,90	0,642	Agree
20	Djezzy agencies work hours suit all customers categories	4,29	0,522	Strongly agree
<b>The average of the fifth axis items</b>		<b>3,97</b>	<b>0,322</b>	<b>Agree</b>

*Source: done by the researcher in the light of SPSS 19 output.*

The above table shows that there is a general agreement concerning empathy (3.97) and the less agreed percentage was on the item n<sup>o</sup> 18 (3.77) and the more agreed percentage was on the item n<sup>o</sup>20 (4.29). As we also notice, the seventeenth item is the less homogenous in their excluded answers with the standard deviation (0.704), while the item the more homogenous was the eighteenth item with the standard deviation (0.482).

**6-the direction of items of the sixth axis (loyalty):**

**Table (08): the direction of items of the sixth axis (loyalty)**

Number	Items	Mean	Std. Deviation	Direction
21	Djezzy is the best in the telecommunication market in Algeria	3,87	0,538	Agree
22	You can get a preferential treatment from Djezzy employees because you are a loyal customer	3,83	0,712	Agree
23	You feel comfortable when dealing with Djezzy employees	3,92	0,587	Agree
24	You cannot dispense with Djezzy services	3,98	0,686	Agree
25	You defend Djezzy when wrongly criticized	3,28	0,509	Neutral
26	You try to advise your relatives or those around you to deal with Djezzy	4,00	0,520	Agree
<b>The average of the sixth axis items</b>		<b>3,81</b>	<b>0,348</b>	<b>Agree</b>

*Source: done by the researcher in the light of SPSS 19 output.*

The above table shows that there is a general agreement concerning loyalty (3.81) and the less agreed percentage was on the item n<sup>o</sup> 25 (3.28) and the more agreed percentage was on the item n<sup>o</sup>26 (4.00). As we also notice, the item n<sup>o</sup>22 is the less homogenous in their excluded answers with the standard deviation (0.712), while the item the more homogenous was the item n<sup>o</sup>25 with the standard deviation (0.509).



**II-2-3- Testing the hypotheses of the study:**

**1- Testing the first main hypothesis and its divergent sub-hypotheses:**

We relied on the method of the simple linear regression to test the main hypothesis and on the method of multiple regression to test the sub-hypotheses as shown by the SPSS output in table n°09 as we could give a model for the relationship between the dependent variable and the independent ones, according to the following equation:

$$\hat{Y} = -0.243 + 0,111 \cdot x_1 + 0,224 \cdot x_2 + 0,101 \cdot x_3 + 0,283 \cdot x_4 + 0,338 \cdot x_5$$

Where:  $\hat{Y}$  : Djezzy customers' loyalty  $x_1$ : tangibility

$x_2$ : reliability  $x_3$ : responsiveness

$x_4$ : assurance  $x_5$ : empathy

Since the determination coefficient is  $R^2=0.922$  which is close to 1 we can say that this sample is good and we can rely on it in the prediction process as it provides results of a high credibility. We can also explain it as: 92.2% of change in Djezzy customers' loyalty is due to the change in the five dimensions of quality, whereas the remaining 7.8% of change in Djezzy customers' loyalty is due to other variables not included in this model.

**Table (09): Testing the first main hypothesis and its divergent sub-hypotheses**

Independent variables	Dependent variable	t	Sig	B	R <sup>2</sup>	Test results
Tangibility	Loyalty	3,293	0,001	0,111	/	H <sub>1</sub> approved
Reliability	Loyalty	6,184	0,000	0,224	/	H <sub>1</sub> approved
Responsiveness	Loyalty	2,228	0,027	0,101	/	H <sub>1</sub> approved
Assurance	Loyalty	6,731	0,000	0,283	/	H <sub>1</sub> approved
Empathy	Loyalty	7,816	0,000	0,338	/	H <sub>1</sub> approved
<b>Service quality</b>	<b>Loyalty</b>	<b>44,206</b>	<b>0,000</b>	/	<b>0,922</b>	<b>H<sub>1</sub> approved</b>

*Source: done by the researcher in the light of SPSS 19 output*

**1- Testing the first main hypothesis:**

We notice that the calculated t (3.293) is bigger than the value of the tabulated t (1.973) so we reject H<sub>0</sub> and we take the alternative hypothesis H<sub>1</sub> and this confirms that the Sig (P-value) is less than or equals  $\alpha$ .

Or, (Sig = 0.000  $\leq$  0.05) so: there is a statistically significant impact of Djezzy service quality on its customers' loyalty at the 0.05 level.

**Testing the first sub-hypothesis:**

We notice that the calculated t (3.293) is bigger than the value of the tabulated t (1.973) so we reject  $H_0$  and we take the alternative hypothesis  $H_1$  and this confirms that the Sig (P-value) is less than or equals  $\alpha$ .

Or, (Sig = 0.001  $\leq$  0.05) so: there is a statistically significant impact of tangibility on Djezzy customers' loyalty at the 0.05 level.

**Testing the second sub-hypothesis:**

We notice that the calculated t (6.184) is bigger than the value of the tabulated t (1.973) so we reject  $H_0$  and we take the alternative hypothesis  $H_1$  and this confirms that the Sig (P-value) is less than or equals  $\alpha$ .

Or, (Sig = 0.001  $\leq$  0.05) so: there is a statistically significant impact of reliability on Djezzy customers' loyalty at the 0.05 level.

**Testing the third sub-hypothesis:**

We notice that the calculated t (2.228) is bigger than the value of the tabulated t (1.973) so we reject  $H_0$  and we take the alternative hypothesis  $H_1$  and this confirms that the Sig (P-value) is less than or equals  $\alpha$ .

Or, (Sig = 0.001  $\leq$  0.05) so: there is a statistically significant impact of responsiveness on Djezzy customers' loyalty at the 0.05 level.

**Testing the fourth sub-hypothesis:**

We notice that the calculated t (6.731) is bigger than the value of the tabulated t (1.973) so we reject  $H_0$  and we take the alternative hypothesis  $H_1$  and this confirms that the Sig (P-value) is less than or equals  $\alpha$ .

Or, (Sig = 0.001  $\leq$  0.05) so: there is a statistically significant impact of assurance on Djezzy customers' loyalty at the 0.05 level.

**Testing the fifth sub-hypothesis:**

We notice that the calculated t (7.816) is bigger than the value of the tabulated t (1.973) so we reject  $H_0$  and we take the alternative hypothesis  $H_1$  and this confirms that the Sig (P-value) is less than or equals  $\alpha$ .

Or, (Sig = 0.001  $\leq$  0.05) so: there is a statistically significant impact of empathy on Djezzy customers' loyalty at the 0.05 level.

**2- Testing the second main hypothesis:**

We rely on the method of independent samples t-test as shown in the following SPSS output:

**Table (10) : Testing the second main hypothesis**

t	Df	Sig	Test results
1,328	184	0,186	$H_0$ approved

Source: done by the researcher in the light of SPSS 19 output

We notice that the calculated t (1.328) is less than the tabulated t (1.972) so we take  $H_0$  and this confirms that the Sig (P-value) is more than  $\alpha$ .

Or, (Sig = 0.288  $>$  0.05). So, there are no significant differences among Djezzy customers' loyalty due to the variable of gender at the 0.05 level.

**3- Testing the third main hypothesis:**

We rely on the analysis method of One Way ANOVA as shown in the following SPSS output:

**Table (11) : the descriptive results of the third main hypothesis**

Descriptives									
Loyalty	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	
					Lower Bound	Upper Bound			
					1	78			3,7949
2	69	3,8188	,30483	,03670	3,7456	3,8921	3,00	4,33	
3	23	3,8551	,33824	,07053	3,7088	4,0013	3,17	4,17	
4	16	3,8333	,24343	,06086	3,7036	3,9630	3,33	4,17	
Total	186	3,8145	,34802	,02552	3,7642	3,8649	3,00	4,67	

Source: SPSS 19 output.

From table (11) we can notice that the age groups are convergent in their loyalty to Djezzy and the least loyal group is the first one (less than 20 years) , (arithmetic average = 3.79). Whereas the most loyal group is the third one (from 40 to 60 years) (arithmetic average = 3.86).

**Table (12) : Analysis of variance of the third main hypothesis**

ANOVA					
Loyalty					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	,075	3	,025	,203	,894
Within Groups	22,331	182	,123		
Total	22,406	185			

**Source :** SPSS 19 output.

From table (12) we can notice that the Sig (P-value) is bigger than the  $\alpha$ . Or: (Sig = 0.894 > 0.05). So we take  $H_0$ .

So there are no significant differences among Djezzy customers' loyalty due to the variable of age at the 0.05 level.

#### **4- Testing the fourth main hypothesis:**

We rely on the analysis method of One Way ANOVA as shown in the following SPSS output:

**Table (13): the descriptive results of the fourth main hypothesis**

Descriptives								
Loyalty								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	25	3,8400	,31358	,06272	3,7106	3,9694	3,17	4,17
2	72	3,7245	,32998	,03889	3,6470	3,8021	3,17	4,17
3	89	3,8801	,35886	,03804	3,8046	3,9557	3,00	4,67
Total	186	3,8145	,34802	,02552	3,7642	3,8649	3,00	4,67

**Source:** SPSS 19 output.

From table (13) we can notice that the least loyal group of Djezzy customers is the group of secondary level (arithmetic average = 3.72). Whereas the most loyal group is the group of undergraduate level (arithmetic average = 3.88).

**Table (14): Analysis of variance of the fourth main hypothesis**

ANOVA					
Loyalty					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	,983	2	,491	4,196	,017
Within Groups	21,424	183	,117		
Total	22,406	185			

**Source:** SPSS 19 output.

From table (14) we can notice that the Sig (P-value) is smaller than or equals  $\alpha$ . Or: (Sig =  $0.017 \leq 0.05$ ). So we reject  $H_0$  and we take the alternative hypothesis  $H_1$ .

So there are significant differences among Djezzy customers' loyalty due to the variable of educational level at the 0.05 level.

**5- Testing the fifth main hypothesis:**

We rely on the analysis method of One Way ANOVA as shown in the following SPSS output:

**Table (15): the descriptive results of the fifth main hypothesis**

Descriptives								
Loyalty								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	111	3,7793	,37414	,03551	3,7089	3,8497	3,00	4,67
2	69	3,8841	,30559	,03679	3,8106	3,9575	3,17	4,33
3	6	3,6667	,10541	,04303	3,5560	3,7773	3,50	3,83
Total	186	3,8145	,34802	,02552	3,7642	3,8649	3,00	4,67

**Source:** SPSS 19 output.

From table (15) we can notice that the least loyal group of Djezzy customers is the group of the divorced and widowers (others) (arithmetic average = 3.67). Whereas the most loyal group is the group of married (arithmetic average = 3.88).

**Table (16): analysis of variance of the fifth main hypothesis**

ANOVA					
Loyalty					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	,603	2	,301	2,529	,083
Within Groups	21,804	183	,119		
Total	22,406	185			

**Source:** SPSS 19 output.

From table (16) we can notice that the Sig (P-value) is bigger than the value of  $\alpha$ . Or : (Sig = 0.083 > 0.05). So we take  $H_0$ .

So there are no significant differences among Djezzy customers' loyalty due to the variable of marital status at the 0.05 level.

**6- Testing the sixth main hypothesis:**

We rely on the method of independent samples t-test as shown in the following SPSS output:

**Table (17): Testing the sixth main hypothesis**

t	df	Sig	Test results
0,160	184	0,873	$H_0$ approved

**Source:** SPSS 19 output.

We notice that the calculated t (0.160) is less than or equals tabulated t (1.973) so we take  $H_0$  and this confirms that the Sig (P-value) is more than  $\alpha$ . Or, (Sig = 0.873 > 0.05).

So, there are no significant differences among Djezzy customers' loyalty due to the variable of payment mode at the 0.05 level.

**II-3- Discussion of the study results':**

- 1- The results showed that Djezzy has in its possession all the physical facilities such as equipments and means of communication, besides the fact that its employees take care of their physical appearance (since the arithmetic average of the answers on the items of the first axis = 4.05) and this is due to the fact that Djezzy gives much attention and allocates huge budgets to support the agencies and provide them with equipments and

- the needed physical facilities so that they provide services of good quality that satisfy their customers.
- 2- The results showed that Djezzy has the ability to achieve and provide services accurately and properly that match with the customers' needs and desires (the arithmetic average of the answers of the items of the second axis= 4.15).
  - 3- The results showed that Djezzy has the flexibility and speed in responding to the customers' needs (arithmetic average of the answers on the items of the third axis= 3.95) and this is due to the continuous formation adopted by Djezzy for its staff because there is a periodic formative program for Djezzy employees in all the fields of providing service to customers.
  - 4- The results showed that there is some weakness (neutrality) in the customer's trust in Djezzy, since the customer does not feel safe and that Djezzy employees are incompetent and don't have the ability to take care of the customers' needs and this is maybe due to the campaign that tarnished the reputation of the enterprise during the last period which lead to the lack of trust the customer has in Djezzy (the arithmetic average of the answers on the items of the fourth axis= 3.31).
  - 5- The results showed that Djezzy employees have the ability to understand their customers and take care of them since they put the customer's interest above all else and the working hours of the agencies are appropriate and good for all the categories of customers (the arithmetic average of the answers on the items of the fifth axis= 3.97).
  - 6- The results showed that the customers are loyal enough to Djezzy since the majority of the respondents stated that they cannot dispense with Djezzy and that Djezzy is the best in the telecommunication market in Algeria though they are unable to defend Djezzy whenever criticized wrongly (the arithmetic average of the answers on the items of the sixth axis= 3.81).
  - 7- The results showed that there is a statistically significant impact of tangibility on Djezzy customers' loyalty.
  - 8- The results showed that there is a statistically significant impact of reliability on Djezzy customers' loyalty.
  - 9- The results showed that there is a statistically significant impact of responsiveness on Djezzy customers' loyalty.

- 10- The results showed that there is a statistically significant impact of assurance on Djezzy customers' loyalty.
- 11- The results showed that there is a statistically significant impact of empathy on Djezzy customers' loyalty.
- 12- The results showed that there is a statistically significant impact of Djezzy service quality on its customers' loyalty and this is the answer to the main problematic of the study.
- 13- The results showed that there are no significant differences among Djezzy customers' loyalty due to the variable of gender at the 0.05 level. Since the loyalty average of males and the loyalty average of females are convergent.
- 14- The results showed that there are no significant differences of Djezzy customers' loyalty due to the variable of age at the 0.05 level. Since the loyalty average of age categories is convergent.
- 15- The results showed that there are significant differences of Djezzy customers' loyalty due to the variable of educational level at the 0.05 level. Since the least loyal group is the group of secondary level however the group the most loyal is the one of undergraduate level.
- 16- The results showed that there are no significant differences of Djezzy customers' loyalty due to the variable of marital status at the 0.05 level.
- 17- The results showed that there are no significant differences of Djezzy customers' loyalty due to the variable of payment mode at the 0.05 level.

***Conclusion:***

As a conclusion to this study we can say that Djezzy has services of a very high quality considering the importance it gives to the five quality dimensions which lead to the good percentage of the customers' loyalty. However, what should also be taken into consideration is the fact that it didn't get yet the loyalty of its customers and this is what we noticed after analyzing the dimension of assurance since the approval was not high compared to the other dimensions. So we can give some pieces of advice and recommendations to Djezzy:

- The need to intensify the marketing efforts in order to regain the trust of its customers.
- The need to adopt a strategy of the service quality in order to be better than its competitors in the telecommunication market in Algeria and work to develop and improve its services.



- Continuous updating of the programs of providing the service keeping pace with the technological development in the field of communications.
- Implementation of training programs for its staff concerning the modalities and ways of dealing with the customers and providing the service properly.
- The design of customer loyalty programs in order to enhance customers' confidence.

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