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## Digital Marketing and Its Role in Supporting Free Competition in the Telecommunications Sector in Algeria

-From the Point of View of Mobile Phone Operators "Djezzy, Ooredoo and Mobilis"-

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**Abstract:**

*From the perspective of a sample of Algerian mobile phone users, this research aims to explore how digital marketing promotes free competition in the country's telecommunications industry. A questionnaire was created and sent out to the 250 people who made up the study's sample to collect data, which was then analyzed. Throughout the research, SPSS was utilized. The study discovered a connection between the average responses regarding digital marketing and support for free competition from the perspective of mobile phone users. This relationship is attributed to certain personal variables, as supported by the results of the Kruskal-Wallis test, the Mann-Whitney test, and the correlation coefficient. The model holds great importance.*

**Keywords:** digital marketing; free competition; mobile phone operators in Algeria

\* **Bessachi Houda**

## **Introduction:**

The technological developments and changes that the world experienced at the end of the twentieth century had a significant impact on all fields and levels, as the emergence of what is known as the information and communications revolution through the expansion of the use of electronic networks and software led to the transition from using traditional methods in completing work to modern electronic methods, is the process in which the internet marketing approach, which represents one of the most critical developments in advertising today field.

In this context, and since digital marketing is considered one of the most important modern methods in contemporary marketing, this has enabled institutions with various activities and types to benefit from its applications as a result of the increasing use of computers and the information revolution that it has brought about in all fields, due to the advantages and high capabilities it provides in storing data and exchanging information through global and local information networks, unlike what was prevalent in traditional marketing of paper transactions that disrupted the work process, which made institutions suffer from continuous pressure and forced they should embrace this new period with an attitude of adaptability, making use of the resources given to them so that they may maintain their position as industry leaders.

As a result of the intense competition that resulted from the presence of many institutions and the desire of the latter to meet the desires and needs of the customer, using several mechanisms, including digital marketing, which includes creating websites that allow institutions to display their products, update their information and diversify their offers in line with the needs and requirements of their customers. In light of the economic openness, markets have become more complex, and free competition has become necessary to use digital marketing strategies to strengthen their position in the market.

## **The question of the study:**

Based on the above, one major issue that might be brought up is:

**“To what extent does digital marketing contribute to supporting free competition in the telecommunications sector in Algeria, from the point of view of mobile phone operators Jeezy, Ooredoo, and Mobilis”?**

## **THE FIRST TOPIC: Background of the study:**

**First section: digital marketing:** Digital marketing consists of many techniques, methods, or practices that depend on electronic marketing or extend beyond that through other channels that help reach customers who do not use the Internet. This necessitated our understanding of digital marketing.

**1. Definition of digital marketing:** Many definitions address traditional marketing and digital marketing, including the following:

**Marketing is** "A set of activities that direct the process of facilitating the exchange of goods and services" ( Amer & Qandeel, 2012, p. 20).

**It is also defined as:** "A set of activities that lead to achieving exchange operations, which include developing and improving products, pricing, and promotion, as well as monitoring and responding to competitors' activities, customer desires, and government policies, as well as various changes in the external environment ( Al-Taie & Al-Abbadi, 2009, p. 25).

**As for digital marketing,** it is the process of establishing and maintaining customer relationships through direct electronic activities to facilitate the exchange of ideas and services that achieve the goals of both parties (Amjad, 2004, p. 28).

**It is also defined as:** "Using the power of direct communication networks, computer communications, and digital interactive means to achieve marketing goals ( Ahmad, 2009, p. 132).

**2. Dimensions of digital marketing:** Here are some ways to characterize the aspects of digital marketing (Al-Hakim & Al-Hamami, 2017, p. 194):

- Attraction: It is a method that works based on consumer interaction, as it requires them to voluntarily visit its interactive application (such as visiting websites to search for something they want to obtain).
- Engagement (interest and participation): It is the involvement of users in participation and interest, and accomplishing other tasks or undertaking other enterprises, as it is a significant determinant of demand.
- Digital marketing is an ongoing process, not a one-and-done deal, and retention is the key to building connections with consumers and keeping their commitment over time with relevant and engaging content.
- Learning: Through interactive communication mediums, marketers can get more customer data (demographics, beliefs, and behaviors). Data gathered via registration forms, surveys, or questionnaires can be utilized for digital marketing purposes:

Communication presents a marketing opportunity to learn more about each customer, provide personalized services, and inform them about other available

services. It allows marketers to tailor the engagement and simultaneously target a specific market.

**Second section: Supporting free competition:** Free competition is the most significant contributor to supporting the wheel of production, improving it, and reducing prices, so it was said that eliminating it is like removing intelligence.

**1 .Definition of free competition:** There are many definitions related to free competition, including the following:

**Competition is defined as:** "It is the struggle between economic agents with similar businesses to obtain the largest possible share in the market. (Sahut, December 2016, p. 425)"

**Free competition is defined as "** the Freedom to enter the market and practice the desired economic activity without any obstacles or restrictions to achieve economic efficiency and improve the lives of consumers (El-Sherif Katou, 2017, p. 07)".

**2. Dimensions of free competition:** The dimensions of free competition can be divided into the following points:

- **Efficiency:** It means converting inputs into outputs. The fewer the inputs required to produce several outputs, the more efficient the institution is, and thus its cost structure decreases, which affects profitability.

- **Modernization:** It is considered the largest source of building competitive advantage because it entails building superior modernization because the latter leads to the emergence of new products that better follow consumer needs and the ability to develop new innovative products or new processes that give the organization a competitive advantage that allows it to distinguish its products and impose an exceptionally higher price in addition to reducing its cost structure to below the level of its competitors;

- **Responsiveness:** The consumer, in this case, is not looking for the cheapest cost but the highest value, so reducing costs is proportional to the value that is expected to be obtained from this product, and to achieve responsiveness, customers must be provided with what they want at the time they want at the price they are willing to pay as long as this is not at the expense of the organization's profitability in the long term;

- **Quality:** Quality is one of the critical competitive advantages, which refers to doing things correctly to provide products that suit customers' needs. Customers want products with quality that meets the required characteristics, which are the characteristics they expect or see in advertising, so companies that do not provide products with quality that meet customers' needs, desires, and expectations cannot survive and succeed in a competitive market.

## THE SECOND TOPIC: Organizing and formulating the study's methodology

### First section: Presenting the field study:

**1. Data and where to find it:** We know what data is needed to solve the primary problem. We discovered that the data needed to resolve this issue is mainly collected from mobile phone users. Secondary sources, such as libraries or prior research, do not typically have this information.

**2. Study community and sample:** The study is based primarily on a field survey of several mobile phone users, numbering 250, as the questionnaire was distributed to a group of them according to the following table:

**Table No. 01: Number of questionnaires distributed**

Questionnaire	Repetition	% Percentage
Distributed questionnaires	400	100%
Retrieved questionnaires	300	75%
Excluded Surveys	50	12.5%
Questionnaires suitable for analysis	250	62.5%

**Source:** Prepared by the study team using SPSS 19 data.

**Second section: Preparing the questionnaire:** To familiarize with the function of digital marketing in supporting free competition in the communications sector in Algeria from the point of view of a group of mobile phone operators, a model was relied upon based on studying the dimension of digital marketing and supporting free competition, to understand the connection between these parts and the way they contribute to the study of digital marketing, which represents the central axis of the survey.

These components served as the basis for the questionnaire questions, which were then used to explore the use of digital marketing and its role in supporting free competition in the communications sector in Algeria from the point of view of a group of mobile phone operators. They depended on Excel and SPSS.

**1. Finding out the questionnaire's goals:** Two types of goals exist: primary and secondary. Finding out how the variables are related will allow us to test our hypothesis and find a solution to the central dilemma posed by "To what extent does digital marketing contribute to supporting free competition in the communications sector in Algeria—from the point of view of mobile phone operators "Djezzy, Ooredoo, and Mobilis?"

As a byproduct, we want to understand which aspects the client values most and

how each part helps define the extent to which digital marketing and free market forces are supported.

**2. Identifying the inquiries:** Because the three-dimensional Likert scale is one of the most popular ways to measure trends, it was utilized to build the questionnaire based on tables. There are a plethora of factors linked to each aspect of trend measurement.

**Third section: we have the test runs of the measuring device.** In addition to the required statistical testing, researchers performed a battery of tests with arbitrators to confirm the questionnaire's validity.

**1. Validity of the questionnaire:** We sent it to a panel of experts from the Yahya Fares University in Medea, El Oued University, and the Bouira University faculty of economics, business, and management departments to review it for validity and appropriateness. The experts gave us their verdict on how well the questions were framed, how well the questionnaire covered the study problem, and whether or not it accomplished its goals. We took notes and used them to revise the questionnaire based on the arbitrators' suggestions until we arrived at the final version.

**2. Questionnaire variables' consistency:** To ensure the questionnaire was stable throughout the study, we calculated its reliability using the Cronbach Alpha coefficient; a result of 0.60 or above is considered satisfactory. The table below shows that the stability value was relatively high.

**Table No. 02: Cronbach's Alpha coefficient to measure the reliability of the questionnaire**

Questionnaire axes		Cronbach's alpha coefficient		
		Correlation coefficient	Stability	Number of phrases
<b>Digital Marketing</b>	<b>Learning and retention</b>	0.918	0.958	<b>02</b>
	<b>Communication and attraction</b>	0.976	0.988	<b>03</b>
	<b>Absorption</b>	0.981	0.990	<b>03</b>
<b>All digital marketing paragraphs</b>		0.989	0.994	<b>08</b>
<b>Support free competition</b>	<b>Efficiency</b>	0.948	0.974	<b>03</b>
	<b>Quality</b>	0.947	0.973	<b>03</b>
	<b>Update</b>	0.985	0.992	<b>02</b>



	<b>Response</b>	0.941	0.970	<b>03</b>
<b>All paragraphs support free competition.</b>		0.985	0.992	<b>11</b>
<b>The questionnaire as a whole</b>		0.983	0.991	<b>19</b>

**Source:** Prepared by the study team using SPSS 19 data.

From the table above, it is clear that the alpha coefficient was high for the questionnaire as a whole, as its value was estimated at .9830, and the same is true for the stability value, as it was high, as it reached 0.991. All this increase is recorded in Cronbach's alpha, and its stability value indicates the stability of its paragraphs. From it, we conclude that the tool we prepared to address the problem raised is valid and stable in all its paragraphs and is ready for application to the study sample.

**3. Test Distribution Normality:** The Smirnov-Kolmogorov (S-K) Test was used to test whether the data follow the normal distribution or not, as demonstrated by the data presented in the table below:

**Table No. 03 shows the results of the standard distribution test.**

<b>Questionnaire axes</b>	<b>Test value</b>	<b>Sig</b>
<b>Questionnaire as a whole</b>	0.210	<b>0.000</b>

**Source:** Prepared by the study team using SPSS 19 data.

According to the table data, the significance level (Sig) for each of the research domains is less than the critical value (0.05) for the function ( $0.05 > 0.000$ ). Since the study's hypotheses were addressed using nonparametric testing, the data distribution in these regions does not adhere to the normal distribution.

**4. Validity on an internal consistency level:** Assessing the reliability of the questionnaire over time. From the exploratory study sample of 250 items, we determined the reliability of the questionnaire items by the arithmetic mean for each axis and the correlation coefficient between the axis and its phrase. Now, we'll calculate the internal consistency for the two parts of the questionnaire, digital marketing and support for free competition, with digital marketing on the first axis and support for free competition on the second.

**A- First part of the validity of digital marketing paragraphs' internal consistency analysis:** this axis has a set of paragraphs (01–08). To determine how stable these axes are overall, we used the Pearson correlation coefficient to show how consistent each paragraph is with the others.

**Table No. 04: Pearson correlation coefficient for the paragraphs of the first part of the study questionnaire**

Digital Marketing	Correlation coefficient	Sig	Result
<b>Learning and retention</b>			
It has blogs and interactive channels that help customers learn how to experience these services.	0.967**	0.000	<b>Dal</b>
Balances are transferred via communication with ease.	0.959**	0.000	<b>Dal</b>
<b>Communication and attraction</b>			
Services are promoted through the website dedicated to each customer.	0.962**	0.000	<b>Dal</b>
It has beautiful advertising windows.	0.987**	0.000	<b>Dal</b>
An email is sent to update information about its new services.	0.980**	0.000	<b>Dal</b>
<b>Absorption</b>			
Offers, incentive points, and gifts are provided through digital applications.	0.967**	0.000	<b>Dal</b>
Provide an easy-to-use page containing various languages, and update it quickly and accurately.	0.986**	0.000	<b>Dal</b>
Use creative software, provide exciting or unique items, and facilitate online shopping.	0.991**	0.000	<b>Dal</b>

**Source:** Prepared by the study team using SPSS 19 data.

As shown in the table above, all the paragraphs in the digital marketing document are statistically significant. As a result, the paragraphs of the questionnaire are legitimate and conform to their intended purpose.

**Section B, "The Advisability of Free Competition Paragraphs' Internal Consistency":** We utilized the Pearson correlation coefficient to demonstrate the degree of internal consistency between the paragraphs that make up this axis,



which consists of a set of paragraphs numbered 01 through 11, to determine the overall stability of these axes.

**Table No. 05: Pearson correlation coefficient for the paragraphs of the second part of the study questionnaire**

<b>Support free competition</b>	<b>Correlation coefficient</b>	<b>Sig</b>	<b>Result</b>
<b>1. Efficiency</b>			
I bought the SIM card based on the discounts offered.	0.950**	0.000	<b>Dal</b>
The services in the segment are new to the market and unique compared to other segments.	0.974**	0.000	<b>Dal</b>
The segments are marketed efficiently through the media.	0.942**	0.000	<b>Dal</b>
<b>2. Quality</b>			
Internet flow is good.	0.967**	0.000	<b>Dal</b>
The price of the services is commensurate with the quality provided.	0.916**	0.000	<b>Dal</b>
The institution is distinguished by its availability of the necessary amenities and equipment.	0.970**	0.000	<b>Dal</b>
<b>3. Update</b>			
Excellent services and offers are provided.	0.994**	0.000	<b>Dal</b>
Competitively priced offers are offered.	0.973**	0.000	<b>Dal</b>
<b>4. Response</b>			
I care about the value of the offers, considering my financial ability.	0.948**	0.000	<b>Dal</b>
The sales points are close, easy to reach, and provide sufficient product	0.924**	0.000	<b>Dal</b>

information.			
The chip is permanently available at authorized points of sale.	0.815**	0.000	<b>Dal</b>

**Source:** Prepared by the study team using SPSS 19 data.

The data in the table above demonstrate statistical significance for each paragraph of the total support for free competition. As a result, the questionnaire paragraphs are legitimate and conform to their intended purpose.

#### **4. The research instrument's validity in terms of its structural consistency:**

The following table explains the relationship between each axis of the study tool and the total score of the questionnaire paragraphs combined; the validity of structural consistency is one of the measures of the study tool's validity because it measures the extent to which the goals of the tool are achieved.

**Table No. 06: Validity of the structural consistency of the study tool**

Survey Topics	Correlation coefficient	Sig	Result
<b>Digital Marketing</b>	0.992**	0.000	Dal
<b>Supporting Free Competition</b>	0.991**	0.000	Dal

**Source:** Prepared by the study team using SPSS 19 data.

Each axis's correlation coefficient with the overall average of the survey items is statistically significant, as shown in Table No. 05. Therefore, the axes are legitimate and measure the things they claim to.

**Instruments for analyzing data:** We utilized frequency tables, percentages, and median tables to effectively evaluate the survey data and identify the link between the dependent and independent variables. To further ensure that our assumptions were sound, we employed nonparametric testing.

#### **THE THIRD TOPIC: Presentation of the study results**

Here, we'll discuss how the questionnaire findings were presented and analyzed by examining the cards respondents filled out and how the questions were answered.

**To begin with, Study sample description:** The data was coded, stored, and processed on the computer using the SPSS and Excel tools, which allow for speedy results after a 250-person sample was collected. The findings were acquired using these two programs and are displayed in the tables and figures.

**Presentation of individual findings:** To earn the respondent's trust, we added a descriptive analysis of his related questions after the survey before presenting the research results.

**Table No. 07: Distribution of sample members according to personal data variables**

<b>Personal results</b>	<b>Options</b>	<b>Repetition</b>	<b>Percentage%</b>
<b>Sex</b>	Male	184	<b>73.6%</b>
	Feminine	66	<b>26.4%</b>
<b>the age</b>	Under 18 years	08	<b>03.2%</b>
	18 to 35 years old	192	<b>76.8%</b>
	36 to 50 years old	44	<b>17.6%</b>
	Over 50 years old	06	<b>02.4%</b>
<b>Job</b>	Employee	96	<b>38.4%</b>
	Daily worker	16	<b>06.4%</b>
	Freelance	32	<b>12.8%</b>
	Student	68	<b>27.2%</b>
	Without work	38	<b>15.2%</b>
<b>Have a mobile phone line</b>	Yes	250	<b>100%</b>
	No	00	<b>00%</b>
<b>Font type</b>	Djezzy	32	<b>12.8%</b>
	Mobilis	60	<b>24 %</b>
	Ooredoo	40	<b>16%</b>
	Djezzy + Mobilis	20	<b>08%</b>
	Djezzy + Ooredoo	28	<b>11.2%</b>
	Mobilis + Ooredoo	40	<b>16%</b>
	Three lines	30	<b>12%</b>
<b>Most used font type</b>	Djezzy	72	<b>28.8%</b>
	Mobilis	128	<b>51.2%</b>
	Ooredoo	50	<b>20%</b>
<b>Number of years of dealing</b>	Less than a year	16	<b>06.4%</b>
	From 1 to 5 years	88	<b>35.2%</b>

	From 6 to 15 years	131	<b>52.4%</b>
	More than 15 years	15	<b>06%</b>
<b>The line is provided with internet service</b>	Yes	232	<b>92.8%</b>
	No	18	<b>07.2%</b>
<b>Coverage in Djezzy</b>	Bad	36	<b>14.4%</b>
	Acceptable	172	<b>68.8%</b>
	Good	30	<b>12%</b>
	Excellent	12	<b>04.8%</b>
<b>Coverage in Ooredoo</b>	Bad	36	<b>14.4%</b>
	Acceptable	84	<b>33.6%</b>
	Good	121	<b>48.4%</b>
	Excellent	09	<b>03.6%</b>
<b>Coverage in Mobilis</b>	Bad	108	<b>43.2%</b>
	Acceptable	104	<b>41.6%</b>
	Good	32	<b>12.8%</b>
	Excellent	06	<b>02.4%</b>
<b>Monthly line costs</b>	Less than 1000 DZD	96	<b>38.4%</b>
	From 1000 DZD to 2000 DZD	148	<b>59.2%</b>
	From 2001 DZD to 5000 DZD	06	<b>02.4%</b>
	More than 5000 DZD	00	<b>00%</b>
<b>Total</b>		250	<b>100%</b>

**Source:** Prepared by the study team using SPSS 19 data.

**Secondly we will examine the questionnaire's first axis:** We utilized the Sign Test to explore the following hypotheses on the questionnaire's dimensions: Using the following statistical inference, we find that, from the perspective of mobile phone consumers, the level of agreement among respondents about the amount to which digital marketing supports free competition is equivalent to neutrality degree 03.

**Null hypothesis:** The median of the response degree is equal to the neutrality degree 03.

**Alternative hypothesis:** The median of the response degree is not equal to the neutrality degree 03.

We will pretend that the actual significance level is higher than the nominal significance level, set at 0.01. Then, the alternative hypothesis is rejected. Here, there is no difference between the neutrality degree and the median included in the sample opinions on the level of digital marketing and support for free

competition. Nonetheless, if the inverse holds, the null hypothesis is discarded. We may find the response degree in this scenario by comparing the median response with the neutrality degree, which means the alternative hypothesis is accepted.

**Table 08: Signal Test Result for Digital Marketing Phrases**

Digital Marketing	Z value	Sig	The real mediator	Sample direction
<b>1. Learning and retention</b>	<b>-5.629</b>	<b>0.000</b>	<b>2.3520</b>	<b>I agree</b>
1	-2.864	0.004	2.39	<b>I agree</b>
2	-2.864	0.004	2.31	<b>Neutral</b>
<b>2. Communication and attraction</b>	<b>-4.518</b>	<b>0.000</b>	<b>2.2693</b>	<b>neutral</b>
3	-5.480	0.000	2.34	<b>I agree</b>
4	-2.652	0.008	2.25	<b>neutral</b>
5	-5.480	0.000	2.22	<b>neutral</b>
<b>3. Absorption</b>	<b>-1.420</b>	<b>0.156</b>	<b>2.3333</b>	<b>neutral</b>
6	-5.103	0.000	2.26	<b>neutral</b>
7	-5.103	0.000	2.38	<b>I agree</b>
8	-3.591	0.000	2.36	<b>I agree</b>
<b>Digital marketing as a whole</b>	<b>-3.917</b>	<b>0.000</b>	<b>2.3140</b>	<b>neutral</b>

**Source:** Prepared by the study team using SPSS 19 data.

The majority of the study's sample members had neutral trends regarding digital marketing, as seen in the table above. The statistically insignificant sign test value reflects this since the significance level (0.000) is less than the nominal significance threshold (0.01). As a result, the level of approval (3) is identical to the median view of the polled mobile phone users.

**Thirdly, we will examine the questionnaire's second axis:** What follows is an analysis of the remaining questions' answers, which represent the free-market component.

**Table No. 09: Degrees of approval for the statements supporting free competition for the study sample**

Digital Marketing	Z value	Sig	The real mediator	Sample direction
<b>1. Efficiency</b>	<b>-4.583</b>	<b>0.000</b>	<b>2.3387</b>	<b>Neutral</b>
1	-9.056	0.000	2.49	<b>I agree</b>
2	-2.946	0.003	2.38	<b>I agree</b>
3	-9.056	0.000	2.15	<b>Neutral</b>
<b>2. quality</b>	<b>-11.748</b>	<b>0.000</b>	<b>2.2800</b>	<b>Neutral</b>
1	-10.100	0.000	2.44	<b>I agree</b>
2	-10.100	0.000	2.02	<b>Neutral</b>
3	-6.962	0.000	2.38	<b>I agree</b>
<b>3. Update</b>	<b>-8.795</b>	<b>0.000</b>	<b>2.5200</b>	<b>I agree</b>
4	-	-	2.54	<b>I agree</b>
5	-	-	2.50	<b>I agree</b>
<b>4. Response</b>	<b>-4.986</b>	<b>0.000</b>	<b>2.4293</b>	<b>I agree</b>
6	-3.466	0.001	2.47	<b>I agree</b>
7	-8.832	0.000	2.25	<b>Neutral</b>
8	-8.832	0.000	2.57	<b>I agree</b>
<b>Support free competition as a whole.</b>	<b>-3.917</b>	<b>0.000</b>	<b>2.3920</b>	<b>I agree</b>

**Source:** Prepared by the study team using SPSS 19 data.

Since the actual significance level (0.000) is lower than the nominal degree of relevance (0.01), the value of the statistically insignificant sign test reflects that the vast majority of the research participants were in agreement regarding support for free competition, as is evident from the table above. A comparison of



the degree of agreement with the median of the opinions expressed by the polled mobile phone users reveals no difference (3).

#### **THE FOURTH TOPIC: Verifying the field study's assumptions**

Following the completion of data collection and analysis using suitable statistical methods in light of the hypotheses that this study set out to test, we will now move on to testing the hypotheses that were pertinent to the field study and confirming their validity or invalidity by examining the analysis results for each hypothesis.

##### **First: Testing the first central hypothesis**

H0: The responses of the research group were identical among members regarding what was stated in each dimension of the study, attributed to gender.

H1: The research group's responses were identical to what was stated in each dimension of the study attributed to gender.

**Table No. 10: Results of the Mann-Whitney test on the existence of statistically significant differences in digital marketing and support for free competition attributed to gender**

Questionnaire Topics	Sig	Average Rank		Z-statistical test	Sig
		Second sample	First sample		
Digital Marketing	0.000	199.50	98.96	-10.104	<b>0.000</b>
Supporting Free Competition	0.000	211.50	94.65	-11.455	<b>0.000</b>
Questionnaire as a Whole	0.000	211.50	94.65	-11.447	<b>0.000</b>

**Source:** Prepared by the researchers based on SPSS program data

According to this test's results, all dimensions' genuine significance levels are lower than their nominal significance levels. Consequently, the average responses of the male and female samples differ. Thus, from the perspective of mobile phone users, gender-related variations in digital marketing and support for free competition imply a strong correlation.

##### **Second: Testing alternative hypotheses**

H0: The research sample does not differ in its responses to members regarding what was stated in each dimension of the study attributed to the age variable;

H1: The research sample is similar in its responses to members regarding what was stated in each dimension of the study, attributed to the age variable.

**Table No. 11: Results of the Kruskal-Wallis test regarding the existence of statistically significant differences in digital marketing and support for free**

competition attributed to age

Questionnaire Topics	Averages				Statistic al test X2	Sig
	Over 50 years old	From 31 to 50 years	From 18 to 30 years	Under 18 years		
Digital Marketing	199.50	199.50	110.69	18.50	84.720	0.000
Supporting Free Competition	211.50	211.50	108.06	6.50	107.121	0.000
Questionnaire as a Whole	211.50	211.50	108.06	6.50	106.972	0.000

**Source:** Prepared by the study team using SPSS 19 data.

Statistical analysis reveals notable variations in digital marketing and support for free competition from the perspective of mobile phone users attributed to the age variable, as noted in the results of this test, where the actual significance level is smaller than the nominal significance level.

**Third: Examining the third alternative hypothesis**

**H0:** The research sample does not differ in its responses to members regarding what was stated in each dimension of the study attributed to the profession variable;

**H1:** The research sample is similar in its responses to members regarding what was stated in each dimension of the study attributed to the profession variable.

**Table No. 12: Results of the Kruskal-Wallis test regarding the existence of statistically significant differences in digital marketing and support for free competition attributed to the profession**

Questionnaire Topics	Averages					Statistic al test X2	Sig
	Without work	Student	Freelance	factor	employee		
Digital Marketing	199.50	196.38	128.50	93.50	50.33	230.513	0.000
Supporting Free Competition	211.50	189.68	127.25	107.00	48.50	224.715	0.000
Questionnaire	211.50	189.68	127.25	107.00	48.50	224.751	0.000

re as a Whole	0	8		00			0
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**Source:** Prepared by the study team using SPSS 19 data.

According to the findings, there are notable variations in mobile phone users' opinions on digital marketing and free competition, which can be attributed to the professional variable. This is because the actual significance level does not reach statistical significance.

#### **Fourth: Testing the fourth hypothesis**

**H0:** The research sample does not differ in its responses to members regarding what was stated in each dimension of the study attributed to the most commonly used font.

**H1:** The research sample is similar in its responses to members regarding what was stated in each dimension of the study, attributed to the most commonly used font variable.

**Table No. 13: Results of the Kruskal-Wallis test regarding the existence of statistically significant differences in digital marketing and support for free competition attributed to the most commonly used font**

Questionnaire Topics	Averages			Statistical test X2	Sig
	Mobilis	Ooredoo	Djezzy		
Digital Marketing	199.50	144.16	40.94	173.200	0.000
Supporting Free Competition	211.50	141.97	36.50	192.855	0.000
Questionnaire as a Whole	211.50	141.97	36.50	192.585	0.000

**Source:** Prepared by the study team using SPSS 19 data.

According to the test's findings, the fundamental significance level is less than the nominal significance threshold; hence, there are discernible disparities in opinion between mobile phone users on digital marketing and free competition as a function of the most used line variable.

#### **Sixth: Testing the sixth sub-hypothesis**

**H0:** The research sample does not differ in its responses to members regarding what was stated in each dimension of the study, attributed to the variable of the number of years of dealing.

**H1:** The research sample is similar in its responses to members regarding what was stated in each dimension of the study, which is attributed to the variable of the number of years of dealing.

**Table No. 14: Results of the Kruskal-Wallis test regarding the existence of**

statistically significant differences in digital marketing and support for free competition attributed to the number of years of dealing

Questionnaire Topics	Averages				Statistical test X2	Sig
	More than 15 years	From 5 to 15 years	From 1 to 5 years	Less than a year		
Digital Marketing	51.50	45.19	15.05	5.00	230.513	0.000
Supporting Free Competition	54.50	44.75	15.45	2.75	224.715	0.000
Questionnaire as a Whole	54.50	44.75	15.45	2.75	224.751	0.000

**Source:** Prepared by the study team using SPSS 19 data.

According to the test's findings, the actual significance level disproves the null hypothesis; that is, there are discernible disparities in the views of mobile phone users on digital marketing and free market support based on the years of dealing variables.

#### **Seventh: Testing the seventh central hypothesis**

**H0:** There is no statistically significant effect of digital marketing and support for free competition at a significance level of 0.05;

**H1:** There is a statistically significant effect of digital marketing and support for free competition at a significance level of .0.05

To test this hypothesis, a simple linear regression analysis test was used to verify the existence of a statistically significant effect for rejection or acceptance as follows:

- Accept the null hypothesis if: The calculated F value is smaller than the calculated F-value with a p-value of 0.05 or the Sig significance level value is more significant than 0.05;
- Accept the alternative hypothesis if: When testing for significance at the 0.05 level, either the computed F-value or the Sig-value is larger than the tabulated F-value;

**Mathematical model for the first sub-hypothesis:** Support for free competition =  $A+B_0$  (digital marketing)

**Table No. 15: Results of simple linear regression analysis, Digital marketing and support for free competition**

Total	Error	Linear regression	Source
132.664	8.680	123.983	total squared

249	248	1	<b>Level of Liberty</b>	
	0.035	123.983	<b>Mean squares</b>	
3542.218			<b>F value</b>	<b>Total morale</b>
0.000			<b>SIG</b>	
<b>Support free competition</b>		<b>Constant</b>		<b>Partial significance (regression coefficients)</b>
1.000		-0.079	<b>B</b>	
59.517		-1.873	<b>T</b>	
0.000		0.062	<b>SIG</b>	<b>Explanatory power</b>
0.967			<b>R</b>	
0.935			<b>R<sup>2</sup></b>	

**Source:** Prepared by the study team using SPSS 19 data.

Digital marketing accounted for 93.5% of the variation in support for free competition, with the remaining 6.5% attributable to other factors, according to the results in the table above. The correlation coefficient between the two variables reached  $R=0.967$ , which is noteworthy with a p-value of 0.05 and a degree of Freedom of (1, 63).

### **I am testing the significance of multiple regression coefficients B0 and A.**

**Rule:** The regression coefficient is significant if the probability value (Sig) is less than 0.05, corresponding to the calculated 'T' value.

Referring to the table above, we find:

**For the significance test A:** Since the value of the probability of mistake Sig is more than 0.05 (0.062), we may conclude that -0.079 a is not statistically significant.

The B0 effect value is statistically significant since the likelihood of error Sig is 0.000, which is lower than the significance level of 0.05. This indicates that the value of support for free competition increases by one hundred percent for every one-unit increase in digital marketing.

**Therefore, the mathematical model is:** Support for free competition =  $0.079 - 1.000$  (digital marketing)

**Conclusion:** With this conclusion, we may conclude that H0 is false and embrace the alternative hypothesis H1, i.e., that digital marketing possesses a statistically significant effect on support for free competition to achieve outstanding performance at the statistical significance level of 0.05.

**Conclusion:** In this study on online advertising and its function in supporting free competition from the point of view of a group of mobile phone users, to facilitate it, we used the questionnaire method, through which we presented and analyzed the results reached, which were limited to mobile phone users. At first,

the size of the community and the size of the sample were determined, and an estimated 250 items were entered into the SPSS V-19 program. Then, we used a set of nonparametric statistical tools necessary for the study to reach the desired results, and the primary research hypotheses were tested.

**Results:** Among the results reached, we mention:

- There are statistically significant differences regarding digital marketing and supporting free competition from the point of view of mobile phone users attributed to gender.

- There are statistically significant differences regarding digital marketing and supporting free competition from the point of view of mobile phone users attributed to the age variable;

- There are statistically significant differences regarding digital marketing and supporting free competition from the point of view of mobile phone users attributed to the profession variable.

- There are statistically significant differences regarding digital marketing and support for free competition from the point of view of mobile phone users attributed to the variable of the most used line;

- There are statistically significant differences regarding digital marketing and support for free competition from the point of view of mobile phone users, attributed to the variable of the number of years of dealing.

- The correlation coefficient between digital marketing and support for free competition reached  $R=0.967$ , which is significant at a significance level of 0.05 and a degree of Freedom of (1, 63), and the value of the interpretation coefficient  $R^2 = 0.935$ , which means that digital marketing explained 93.5% of the changes that occur in support for free competition, and the remaining 6.5% is due to other factors;

Digital marketing has a statistically significant effect on support for free competition to achieve outstanding performance, with a statistical significance level of 0.05.

**Suggestions:** In light of the previous results, we can present a set of tips and recommendations related to digital marketing and its role in supporting free competition. We suggest the following:

- Rely on internal sources (workers, engineers, marketers, sales representatives, designers, etc.) and external sources (customers, competitors, etc.) to create new product ideas for the organization, as they are rich sources.

- Use brainstorming to motivate and create ideas, in addition to relying on financial incentives to convince people to put forward the ideas they have. Although anyone can come up with a great idea, the organization can work systematically to generate great ideas.



-If a competitor's product is more advanced, the organization can use their product as a base and develop its product further;

-The marketer must ensure that the relative advantages of the new product are communicated to consumers. Nothing should be considered explicit, but communication with consumers must be clear and convincing.

-The organization must look forward to increasing the consumer's direct digital marketing means and consistently seek to add an innovative and effective imprint.

### **Footnotes**

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