

## The impact of Online Advertising on the Perceived Product Quality: iPhone Case Study

تأثير الإعلان الإلكتروني على الجودة المدركة للمنتج: دراسة حالة شركة آيفون

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### Abstract:

The aim of this study is to determine the impact of online advertising on the perceived product quality at iPhone (Apple). This study was conducted on a sample of iPhone (Apple) customers from different levels. The descriptive analytical method was used to test the study hypotheses. The data was collected through a questionnaire designed for this purpose. To achieve the objectives of the study, data were collected by selecting a random sample of iPhone (Apple) users at different levels. 355 copies of the questionnaire designed were distributed to the target sample group. However, only 352 copies of the questionnaire were retrieved. This relationship was tested using SPSS 22 statistical software and using electronic questionnaire in sampling. The study concluded that there is a positive impact of online advertising in its various dimensions on the quality of the perceived product in the iPhone (Apple).

**Keywords:** online advertising; Perceived Product Quality; iPhone (Apple) Company

**JEL Classification Codes:** M31, M37

### ملخص:

تهدف هذه الدراسة إلى تحديد تأثير الإعلان عبر الإنترنت على جودة المنتج المتصورة في iPhone (Apple). أجريت هذه الدراسة على عينة من عملاء iPhone (Apple) من مختلف المستويات. تم استخدام الطريقة التحليلية الوصفية لاختبار فرضيات الدراسة. تم جمع البيانات من خلال استبيان مصمم لهذا الغرض. لتحقيق أهداف الدراسة، تم جمع البيانات عن طريق اختيار عينة عشوائية من مستخدمي iPhone (Apple) على مستويات مختلفة. تم توزيع 355 نسخة من الاستبيان المصمم على مجموعة العينة المستهدفة، وقد تم استرداد 352 نسخة فقط من الاستبيان. تم اختبار هذه العلاقة باستخدام برنامج SPSS 22 الإحصائي وباستخدام الاستبيان الإلكتروني في أخذ العينات. خلصت الدراسة إلى وجود تأثير إيجابي للإعلان عبر الإنترنت بأبعاده المختلفة على جودة المنتج المدروس في iPhone (Apple).

**كلمات مفتاحية:** اعلان الكتروني، الجودة المدركة، شركة iPhone (Apple)

**تصنيفات JEL:** M37 , M31

## **INTRODUCTION:**

Online advertising, also called online marketing or Internet advertising or web advertising, is a form of marketing and advertising which uses the Internet to deliver promotional marketing messages to consumers. The internet has is an ongoing emerging source tha tends to expand more and more and is growing exponentially in both its applications and number of users due to its unique characteristics of flexibility, interactivity, and personalization. Internet as an advertising medium is versatile and this is it where it stands apart from the traditional advertising mode. It is a highly flexible mode that allows consumer to make changes during the course of the campaign as and when required without incurring much additional cost. This makes internet all the more important in a country like India where the business scenario is highly dynamic and changes with each passing day. Online marketing media allows the consumer to make changes as and when required to meet the latest demands of the market.

**Considering the above, the aim of this paper is to answer the question:**

**What is the role of Online Advertizing in Perceived Product Quality?**

**Research Hypotheses:** The study is based on the following hypotheses:

**H<sub>0</sub> :** There is no statistically significant effect for the application of Online Advertizing on the Perceived Product Quality in iPhone (Apple) Company.

**H<sub>01</sub>:** There is no statistically significant effect for **Accessibility** on the Perceived Product Quality

**H<sub>02</sub>:** There is no statistically significant effect for **Interactivity** on the Perceived Product Quality

**H<sub>03</sub>:** There is no statistically significant effect for **In-formativeness** on the Perceived Product Quality

**H<sub>04</sub>:** There is no statistically significant effect for **Entertainment** on the Perceived Product Quality

**H<sub>05</sub>:** There is no statistically significant effect for **Irritation** on the Perceived Product Quality

## **1-LITERATURE REVIEW**

### **1-1 The Concept of Online Advertizing:**

The emergence of technology has made online advertising the major channel of commercial communication around the world. Advertising is defined as any paid form of non-personal communication of ideas and information about products in the media with the objective of creating brand image (Kotler & Armstrong, 2008). The objective of advertising is to create awareness of a company, a brand, a website, or an event in order to stimulate sales and increase profits. For a long time, television, radio, newspapers, and magazines have dominated the advertising media. Now, online advertising is becoming the driving force in many advertising initiatives and efforts (Kotler & Armstrong, 2008)

Several cases of online ad campaigns include, display advertising: the role of web banners or banner advertisements, which are the small boxes of ads that you attend on many sites. These banner ads increase product awareness and can also drive traffic to a company's

web site. Standard ads are can be static, animated, dynamic, interactive, or television. Behavioral targeting, demographic targeting, geographic targeting, reTargeting and site based targeting are all usual ways in which advertisers choose to target banner ads, the ability to effectively target a very specific consumer is a Online advertising is a selling strategy that involves the use of the Internet as a medium to generate website traffic and mark and present marketing messages to the right customers. Online advertising is geared toward defining markets through unique and useful applications. Since the former 1990s, there has been an exponential increase in the growth of online advertising, which has modernized into a standard for small and big organizations. (Khandare & Suryawanshi, 2016)

A major advantage of online advertizing is the ability to gain a broad audience for a fraction of what it would cost in traditional advertising. Another beneficial portion of online advertising is the ability to easily, accurately and inexpensively measure statistics. Analyzing online advertising campaigns have become somewhat of a science, as there are so many ways to trace, measure and test results. These analytics make it lots more comfortable to optimize online advertising campaigns and estimate return on investment (ROI). (Kotler & Armstrong, 2008)

#### **1-2 Dimensions of Online Advertizing:**

- **Accessibility:** ability of user avail service provider by online advertising. (Muhammad & Dwi, 2015)
- **Interactivity:** ability of mutual communication between advertisers and consumers the response to the input they receive. (Muhammad & Dwi, 2015)
- **In-formativeness:** ad ability to deliver information to consumer to give a true picture of product. (Muhammad & Dwi, 2015)
- **Entertainment:** ability of advertising to give pleasure to consumer while inserting advertising information. (Muhammad & Dwi, 2015)
- **Irritation:** it's an online disorder means manipulation or fraud online ad that lead to bad experience. (Muhammad & Dwi, 2015)

#### **2- The Concept of Perceived Product Quality:**

Perceived quality can also be meaningful to retailers, distributors and other channel members and thus aid in gaining distribution. Perceived quality is the key dimension associated with brand equity. The higher customers' expectation to purchase a product belonging to a brand the higher their willingness to recommend that brand to others (Ewing, 2000). In general, when customers perceive high quality, the product meets customers' needs, which, in turn, leads to their satisfaction and loyalty (Juran & Gofrey, 1999). Hardware retailers' willingness to order is greater when there are tendencies toward perceiving higher quality. Product quality perception, pressure from the ultimate consumer and loyalty do impact purchasing decisions. Quality is important for retailers' loyalty; if they are satisfied with their purchase, they are more likely to repurchase (Davis-Sramek, Droge, Mentzer, & Myers, 2009). Retailer awareness, retailer association, retailer perceived quality and retailer loyalty are positively related to purchase intention (Das, 2014). As proposed by (Pappu, P.G, & Cooksey, 2005) perceived quality is associated with brand loyalty.

According to (Aaker & Joachimsthaler, 2000), perceived quality is “a special type of association, partly because it influences brand associations in many contexts and partly because it has been empirically shown to affect profitability.” As (Zeithaml, 1988) said that perceived quality is “the consumer’s judgment about a product’s overall excellence or superiority.” (Zeithaml, 1988) emphasized that perceived quality is (1) different from objective or actual quality, (2) a higher level abstraction rather than a specific attribute of a product, (3) a global assessment that in some cases resembles attitude, and (4) a judgment usually made within a consumer’s evoked set. Similarly, the definition of perceived quality by (Aaker, D. A, 1991) is “the customer’s perception of the overall quality or superiority of the product or service with respect to its intended purpose, relative to alternatives.” In fact, the perceived quality is different from actual or objective quality, product-based quality, and manufacturing quality

(Aaker, D. A, 1991), It can be viewed as the difference between overall quality and undetected quality. Furthermore, perceived quality may lead to consumer satisfaction, which is determined by perceived performance and expectation (Chaudhuri, 2002). Although there are a lot of definitions from many scholars, each of the definition has a shared common meaning; that is, perceived product quality is the consumer’s perception of overall components of product—both tangible and intangible characteristics. It may also include performance, features, reliability, conformance, durability, serviceability, and aesthetics etc. Above all, it is different from the actual quality of products.

### **3- The Concept of iPhone (Apple) Company:**

Founded in 1977, Apple Inc., listed on NASDAQ, is an American multinational corporation that designs and sells personal computers, software, consumer electronics and a range of content-based services.

Following very strong demand for a range of highly innovative products, Apple’s revenues have increased from around USD 65 billion in 2011 to USD 156.5 billion in 2012.

Apple is currently one of the largest publicly traded companies in the world by market capitalisation.

Apple’s best-known products are the Mac line of computers, the iPod and iPod Touch, the iPhone, the iPad and the iTunes Store.

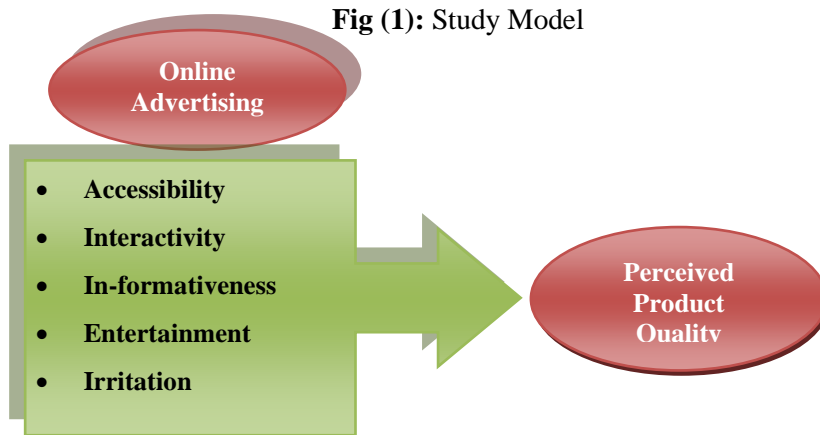
Apple’s main software lines include the Mac OS X operating system and the iTunes media player and the Safari web browser.

### **4- DATA ANALYSIS AND FINDINGS :**

#### **4-1 Study Population and Sample :**

- Study population: Sample of customers for the company iPhone (Apple)
- Sample size: The sample of the study represented by the staff of iPhone (Apple) was selected. The sample is determined to be randomized in order that all individuals have equal chances. The questionnaires were distributed to more than 355 male and female customers through the Online Questionnaire using Google Drive. 352 copies of the questionnaires were retrieved, equivalent to 99.15% of the sample size.

**4-2 Study Model:**



Source: Prepared by the researchers

**4-3 Reliability Analysis Cronbach’s Alpha:**

**Table (1):** Values of Cronbach’s alpha

Cronbach’s Alpha	Number of elements
<b>0.777</b>	<b>23</b>

Source: the preparation of researchers and the adoption of the spss22

- A reliability test was carried out using Cronbach’s alpha, which measures the internal consistency of a construct. The recommended minimum acceptable limit of reliability measure, as reported by Sekaran, (Sekaran, 2003) is 0.60. As shown in Table 1, the reliability test of questionnaire is estimated at **0.777%**, which is 77.7%. This means that the questionnaire is valid for being greater than 0.60 indicating greater stability of the measuring instrument. If it is returned in another time and place for the same sample, the same results will be obtained

**4-4 Results of the study data analysis and hypothesis testing:-Data analysis :**

**4-4-1 Description of the Study Sample**

The results of Table 1 show that most respondents to the study were females with an average of **55.11%**, while **158** respondents representing (**44.87%**) are males, and the age category is from 31-40 years old amounting to **40.90 %** and that’s because the majority of the employees of this sector their age range between (31-40), also the analysis showed that the majority of respondents are within the group who hold a University degrees at the average of **46.31**. The table below illustrates this:

**Table (2): RESPONDENTS' DEMOGRAPHIC ANALYSIS**

Variable	Levels	Number	%
Gender	Male	<b>158</b>	<b>44.87</b>
	Female	<b>194</b>	<b>55.11</b>
Age	Less than 30 years	<b>64</b>	<b>18.18</b>
	31 to less than 40 years	<b>144</b>	<b>40.90</b>
	41 to less than 55 years	<b>97</b>	<b>27.56</b>
	56 years and over	<b>47</b>	<b>13.35</b>
Qualification	Secondary	<b>88</b>	<b>25</b>
	Academic	<b>163</b>	<b>46.31</b>
	Other studies	<b>101</b>	<b>28.69</b>
Total		<b>24</b>	

Source: the preparation of researcher and the adoption of the spss22

#### 4-4-2 Test the hypotheses of the study:

- **First hypothesis: The relationship between Accessibility and Perceived Product Quality**

**H<sub>0</sub>:** There are no significant differences between Accessibility and Perceived Product Quality

**H<sub>1</sub>:** There are significant differences between Accessibility and Perceived Product Quality

**Table 3:** The relationship between Accessibility and Perceived Product Quality

Independent variables : Accessibility	The correlation coefficient	The regression line	The dependent variable : Perceived Product Quality		
			R	R <sup>2</sup>	Sig
	0.736	2.923	0.721	0.520	0.021

Source: the preparation of researcher and the adoption of the spss22

#### Analysis:

The above table shows that the bilateral link value (R) between Accessibility and the Perceived Product Quality was (0.721), representing value of (72.1%) Is a very strong link, as was the coefficient of determination (R<sup>2</sup> =0.520) that is (52%) of change Perceived Product Quality in the due to the change in the Accessibility. Note that the significance level (Sig) is Smaller than the level of significance (0.021) This shows that there is statistically significant differences between Perceived Product Quality and Accessibility, We accept the alternative hypothesis H<sub>1</sub> and reject the null hypothesis H<sub>0</sub> in the sense that there is a statistically significant relationship between the Perceived Product Quality and Accessibility. Thus, regression equation between Accessibility (X<sub>1</sub>) and Perceived Product Quality (y) as follows:

$$Y = 2.923 + 0.736X_1$$

- **Second Hypothesis: The relationship between Interactivity and Perceived Product Quality:**

**H<sub>0</sub>:** There is no statistically significant relationship between Interactivity and Perceived Product Quality

**H<sub>1</sub>:** There is statistically significant relationship between Interactivity and Perceived Product Quality

**Table 4:** the relationship between Interactivity and Perceived Product Quality

Independent variables : Interactivity	The correlation coefficient	The regression line	The dependent variable : Perceived Product Quality		
			R	R <sup>2</sup>	Sig
	0.864	1.983	0.685	0.470	0.006

Source: the preparation of researchers and the adoption of the spss22.

**Analysis:**

The above table shows that the bilateral link value (R) between Interactivity and the Perceived Product Quality was (0.685), which (68.5%) Is a very Weak link, as was the coefficient of determination (R<sup>2</sup> =0.470) that is (47%) of change Perceived Product Quality in the due to the change in the Interactivity. Note that the significance level (Sig) is Smaller than the level of significance (0.006) This shows that there is no statistically significant differences between Perceived Product Quality and Interactivity, We accept the alternative hypothesis H<sub>1</sub> and reject the null hypothesis H<sub>0</sub> in the sense that there is no statistically significant relationship between the Perceived Product Quality and Interactivity. Thus, regression equation between Interactivity (X<sub>2</sub>) and Perceived Product Quality (y) as follows:  
**Y=1.983+0.864X<sub>2</sub>**

- **The third hypothesis: The relationship between In-formativeness and Perceived Product Quality**

**H<sub>0</sub>:** There is no significant relationship between In-formativeness and Perceived Product Quality

**H<sub>1</sub>:** There is significant differences between In-formativeness and Perceived Product Quality

**Table 5:** the relationship between In-formativeness & Perceived Product Quality

Independent variables : In-formativeness	The correlation coefficient	The regression line	The dependent variable : Perceived Product Quality		
			R	R <sup>2</sup>	Sig
	0.753	1.953	0.548	0.300	0.000

Source: the preparation of researchers and the adoption of the spss 22

**Analysis:**

The above table shows that the bilateral link value (R) between In-formativeness and the Perceived Product Quality was (0.548), which (54.8%) Is a strong link, as was the coefficient of determination (R<sup>2</sup> =0.300) that is (30%) of change Perceived Product Quality in the due to the change in the In-formativeness. Note that the significance level (Sig) is Smaller than the level of significance (0.000) This shows that there is statistically significant differences between Perceived Product Quality and In-formativeness, We accept the alternative hypothesis H<sub>1</sub> and reject the null hypothesis H<sub>0</sub> in the sense that there is a statistically significant relationship between the Perceived Product Quality and In-formativeness. Thus, regression equation between In-formativeness (X<sub>3</sub>) and Perceived Product Quality (y) as follows: **Y= 1.753+0.953X<sub>3</sub>**

- **The fourth hypothesis: The relationship between Entertainment and Perceived Product Quality**

**H<sub>0</sub>:** There is no statistically significant relationship between Entertainment and Perceived Product Quality

**H<sub>1</sub>:** There is no statistically significant relationship between Entertainment and Perceived Product Quality

**Table 6:** the relationship between Entertainment & Perceived Product Quality

Independent variables : <b>Entertainment</b>	The correlation coefficient	The regression line	The dependent variable : <b>Perceived Product Quality</b>		
			<b>R</b>	<b>R<sup>2</sup></b>	<b>Sig</b>
	0.436	2.984	0.583	0.340	0.002

**Source:** the preparation of researchers and the adoption of the spss22

**Analysis:**

The above table shows that the bilateral link value (R) between Entertainment and the Perceived Product Quality was (0.583), which (58.3%) Is a strong link, as was the coefficient of determination ( $R^2=0.340$ ) that is (34%) of change Perceived Product Quality in the due to the change in the Entertainment. Note that the significance level (Sig) is Smaller than the level of significance (0.002) This shows that there is statistically significant differences between Perceived Product Quality and Entertainment, We accept the alternative hypothesis H<sub>1</sub> and reject the null hypothesis H<sub>0</sub> in the sense that there is a statistically significant relationship between the Perceived Product Quality and Entertainment. Thus, regression equation between Entertainment (X<sub>4</sub>) and Perceived Product Quality (y) as follows: **Y=2.984+0.436X<sub>4</sub>**

- **The fifth hypothesis: The relationship between Irritation and Perceived Product Quality:**

**H<sub>0</sub>:** There is no statistically significant relationship between Irritation and Perceived Product Quality

**H<sub>1</sub>:** There is statistically significant relationship between Irritation and Perceived Product Quality

**Table 7:** the relationship between Relation and Co-operation and Perceived Product Quality

Independent variables: <b>Irritation</b>	The correlation coefficient	The regression line	The dependent variable : <b>Perceived Product Quality</b>		
			<b>R</b>	<b>R<sup>2</sup></b>	<b>Sig</b>
	0.754	1.975	0.385	0.148	0.076

**Source:** the preparation of researchers and the adoption of the spss22

**Analysis:**

The above table shows that the bilateral link value (R) between Irritation and the Perceived Product Quality was (0.385), which (38.5%) Is a very Weak link, as was the coefficient of determination ( $R^2=0.148$ ) that is (14.8%) of change Perceived Product Quality in the due to the change in the Irritation. Note that the significance level (Sig) is greater than the level of significance (0.076) This shows that there is no statistically significant differences between Perceived Product Quality and Irritation, We accept the null hypothesis H<sub>0</sub> and reject the alternative hypothesis H<sub>1</sub> in the sense that there is no statistically significant relationship between the Perceived Product Quality and Irritation. Thus, regression equation between Irritation (X<sub>5</sub>) and Perceived Product Quality (y) as follows: **Y=1.975+0.754X<sub>5</sub>**



- **The main Hypothesis: the relationship between online advertising and Perceived Product Quality**

**H<sub>0</sub>:** There is no statistically significant relationship between online advertising and the Perceived Product Quality

**H<sub>1</sub>:** There is no statistically significant relationship between online advertising and the Perceived Product Quality

**Table 8:** the relationship between online advertising & Perceived Product Quality

Independent variables : online advertising	The correlation coefficient	The regression line	The dependent variable : Perceived Product Quality		
			R	R <sup>2</sup>	Sig
	0.469	3.329	.0664	.0441	0.001

**Source:** the preparation of researchers and the adoption of the spss22

**Analysis:**

The above table shows that the bilateral link value (R) between online advertising life and the Perceived Product Quality was (.0664), an increase of (66.4%) Is a strong link, as was the coefficient of determination (R<sup>2</sup>=.0441) that is (44.1 %) of change Perceived Product Quality in the due to the change in the online advertising. Note that the significance level (Sig) is Smaller than the level of significance (0.001) This shows that there is statistically significant differences between Perceived Product Quality and online advertising, We accept the alternative hypothesis H<sub>1</sub> and reject the null hypothesis H<sub>0</sub> in the sense that there is a statistically significant relationship between the Perceived Product Quality and online advertising. Thus, regression equation between online advertising (X) and Perceived Product Quality (y) as follows: **Y= 3.329+0.469X**

**Conclusion:**

In this paper, an investigation has been conducted on online advertising towards Perceived Product Quality in the iPhone (Apple) Company. This study explored the relationship between Perceived Product Quality and several factors of online advertising such as Accessibility, Interactivity, In-formativeness, Entertainment and Irritation.

The results of the analysis show that the strongest influencing factor in the Perceived Product Quality in the iPhone (Apple) Company is Accessibility, while the lowest influential factor affecting the Perceived Product Quality in the iPhone (Apple) Company is Irritation. Consequently understanding of all the factors affecting Perceived Product Quality will help the company detect and develop product defects according to the requirements and wishes of consumers.

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