# A Study of Impact of Customer Satisfaction on Online Shopping

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## ABSTRACT
Customer satisfaction is considered important for online shopping. Researching what leads to customer satisfaction has become paramount for online businesses. Thus, the goal of this work was to identify the determinants of customer satisfaction in an online context. In this work, the authors proposed a conceptual model of customer satisfaction in an online context, identifying key factors proposed in previous studies, and hypotheses were developed accordingly. Hypotheses were tested using multiple regression analysis based on a sample of 50 online clients. The work found that customer service, website design, and perceptions of security were largely related to customer satisfaction on the internet.

**KEYWORDS:** Customer, satisfaction, online, service, shop

## 1. INRODUCTION

Technological advances and the Internet have led to the proliferation of online shopping. This gives enterprises many opportunities to create and maintain relationships and interactions with customers (Pappas et al., 2014). Online shopping or electronic retail has attracted the attention of many retailers because it was created as an alternative channel in combination with traditional offline retail channels (Rowley, 2006).

Even though online mechanisms may provide easy-to-use and effective methods of shopping (Momtaz et al., 2011), customers may not choose them if these mechanisms do not meet their expectations. Customers typically have a certain level of expectation regarding a product or service. When expectations match performance, customers are said to be satisfied, while customers are not satisfied when expectations are lower than performance (Swan and Combs, 1976). Overall, a very satisfied customer remains loyal to the company for a longer period of time (Williams and Naumann, 2011). They tend to buy more when a company introduces new products, spread positive words about the company and its products, offer new company ideas, pay less attention to competing brands and are less price-sensitive (Kotler and Keller, 2012) when a customer is satisfied with a certain online or offline store, there is a high tendency that he or she will shop again in this store.

Alternatively, customer dissatisfaction signals that the service found is not in line with expectations (Churchill and Surprenant, 1982). Customer dissatisfaction will lead to loss of customer loyalty, which in turn will lead to the termination of subsequent transactions and repeat purchases of this customer (Moriuchi and Takahashi, 2016). In addition, it was found that customer dissatisfaction arises as a result of a service failure or a feeling of dissatisfaction with the service. Customer dissatisfaction has been identified as an important determinant of customer switching behavior (Bougie et al., 2003).

However, an analysis of previous studies has shown that the results are contradictory. For example, Chen et al., (2012) found that website design is the most powerful independent variable that affects customer satisfaction in an online shopping environment. In contrast to this work, Ranjbarian et al. (2012) determined that there is no significant relationship between website design and customer satisfaction. Further, et al., (2010) determined that the quality of product information is closely related to overall customer satisfaction. In contrast to this result, Evanschitzky et al., (2004) found that the quality of product information is not a significant factor in determining customer satisfaction on the internet.

The above discussion showed that the findings regarding customer satisfaction are not consistent, and there are conflicting findings. Thus, it is obvious that among researchers there is no consensus on significant factors affecting customer satisfaction. Thus, the aim of this work is to fill the research gap by identifying significant factors affecting customer satisfaction in an online context.

## 2. Background
## 2.1. Customer Satisfaction

Customer satisfaction is considered one of the most studied designs in marketing literature. This plays an important role in a competitive environment because of its ability to retain existing customers and represent new customers. (Tandon et al., 2017). Kotler and Keller (2012) defined satisfaction as "a feeling of pleasure or frustration of a person resulting from a comparison between the quality of a product or service and expectations". Another point of view was presented by Oliver (2015), where he defined customer satisfaction as the "customer satisfaction response". This judgment relating to the function of the product/service, or the product or service actually provided (or is providing) a pleasant level of performance related to consumption. " Giese et al., (2000) argue that customer satisfaction includes three main components: a response (emotional or cognitive) related to a specific goal (expectations, product, consumption experience, etc.), Defined at a specific time (after consumption, after choice, based on experience, etc.).

However, in this work, customer satisfaction design is generally defined as customer satisfaction compared to his / her previous online shopping experience. According to

Flavián et al., (2006), user satisfaction depends on satisfying customer expectations. Therefore, it is important to conduct a detailed analysis of the requirements of the website user.

## 2.2. Factors Affecting Online

Customer Satisfaction In order to achieve the goal of this work, researchers first had to identify specific determinants of customer satisfaction on the Internet. This was not an easy task, as different researchers studied differently the area of customer satisfaction on the Internet and, of course, used different designs. Therefore, the researchers had to adopt an acceptable method for determining the determinants of online customer satisfaction, which could be used to develop a sound conceptual model. Consequently, the researchers looked at thirty-one previous research articles that examined the level of customer satisfaction on the Internet. This extensive literature review allowed researchers to uncover forty-five different factors that determine customer satisfaction on the Internet.

## 2.3. Conceptual model

For the purposes of this work, the researchers decided to select the most cited five determining factors for developing a conceptual framework. Five key determinants of customer satisfaction on the internet were selected for the study: website design, perception of security, customer service, quality of product information and the convenience of the purchase process. Based on the above rationale, a conceptual model was developed (shown in Figure 1), depicting the relationship between the five determinants and the level of customer satisfaction on the internet.
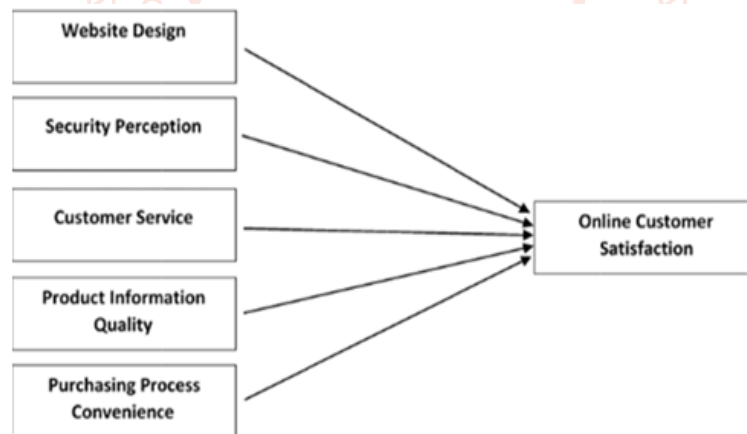


Figure 1. Conceptual model

## 2.4. Hypotheses

H1: There is a positive effect on the quality of product information on customer satisfaction on the Internet.
H2: There is a positive effect of website design on customer satisfaction on the internet
H3: There is a positive effect of convenience of the buying process on online customer satisfaction.
H4: Positive impact of security perceptions on online customer satisfaction.
H5: There is a positive impact of customer service on online customer satisfaction.

## 3. Research Method
## 3.1. Sample

The sample procedure used was convenient sampling since it is the best way to collect information quickly and efficiently (Momtaz et al., 2011). The work sample comprised of 50 MBA students of the University. This sample was selected for the study due to several reasons. Firstly, students are among the most active online buyers. And they were considered to be suitable samples for online shopping research due to their online and actual purchasing experiences, technological advances and innovativeness (Yoo and Donthu, 2001). Secondly, online consumers are recognized as younger and highly educated than conventional consumers, making students more related to the online consumer population (McKnight et al., 2002). Finally, they have the opportunity to use the Internet for communication and commercial transactions (Walczuch and Lundgren, 2004).

## 3.2. Data Collection

Data collection of the work was done by personally distributing the questionnaires to the MBA students who were present in the classes. Consequently, 50 responses could be collected in two attempts spanning two weeks. Evaluation of the questionnaires revealed that there were 11 respondents who lacked any online purchasing experience. Due to the nature of the research, those responses had to be eliminated.

## 3.3. Instrument Development

The questionnaire consisted of two sections. The first section covered demographic information of respondents such as gender, age, income, online shopping experience and frequency of online shopping activities. The second section included the measurements to measure the six constructs identified in the conceptual model. In order to measure the constructs, pretested items were adopted from previous literature. The questionnaire was developed using multiple item method and each item was measured based on a five-point Likert scale ranging from "strongly disagree" to "strongly agree".

## 4. Results
## 4.1. Validity and Reliability

Validity is aimed at identifying the extent to which the research concept is correctly represented by measures (Hair et al., 2014). This has been verified using content validity and confidence building. The reliability of the content is understood as "the assessment of the conformity of variables that should be included in the generalized scale and its conceptual definition" (Hair et al., 2014). In addition, indicators of independent and dependent variables were put in place based on existing literature. Thus, this process has provided a higher level of reliability of the content.

| Construct | No. of Items | AVE | Cronbach's Alpha |
|---|---|---|---|
| Product information quality | 5 | 0.666 | 0.871 |
| Website design | 6 | 0.657 | 0.894 |
| Purchasing process convenience | 3 | 0.750 | 0.833 |
| Security perception | 4 | 0.767 | 0.899 |
| Customer service | 5 | 0.654 | 0.864 |
| Customer satisfaction | 6 | 0.746 | 0.930 |

**Table1. Validity and reliability results**

Reliability is "an assessment of the degree of consistency between several dimensions of a variable" (Hair et al., 2014). Cronbach's alpha was used to measure the reliability of the measures. According to Hair et al. (2014) Cronbach alpha coefficient of 0.7 was taken as a threshold level to ensure stability and consistency of instruments. According to Table 2, the Cronbach alpha value of all six constructs was above 0.7. Therefore, the reliability of the design is established.

| | PIQ | WD | PP | SP | CS | CSat |
|---|---|---|---|---|---|---|
| Product information quality | **0.666** | | | | | |
| Website deign | 0.396 | **0.657** | | | | |
| Purchasing process convenience | 0.410 | 0.555 | **0.750** | | | |
| Security perception | 0.183 | 0.206 | 0.295 | **0.767** | | |
| Customer service | 0.334 | 0.289 | 0.367 | 0.211 | **0.654** | |
| Customer satisfaction | 0.343 | 0.373 | 0.349 | 0.271 | 0.520 | **0.746** |

**Table2. Discriminant validity results**

## 4.2 Hypothesis Testing

Multiple regression analyzes were performed to examine the effect of five designs on customer satisfaction on the Internet and thus test five hypotheses. This method is considered a suitable method when the research problem involves one dependent variable that is associated with two or more independent variables (Hair et al., 2014). The results of this analysis are presented in Table 3 and Table 4.

**Table3. Model**

| Model | R | R Squared | Adjusted R Squared | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .786[a] | .618 | .605 | .48874 |

a. Predictors: (Constant), Customer service, Security Perception, Website Design, Product Information Quality, Purchasing process convenience

b. Dependent Variable: Customer satisfaction

| | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Hypothesis result |
|---|---|---|---|---|---|---|
| | B | Std. Error | Beta | | | |
| (Constant) | 0.194 | 0.233 | | 0.831 | 0.408 | |
| Product information quality | 0.122 | 0.076 | 0.116 | 1.591 | 0.114 | H$_1$:Not supported |
| Website deign | 0.239 | 0.084 | 0.232 | 2.861 | 0.005 | **H$_2$:Supported** |
| Security perception | 0.157 | 0.059 | 0.168 | 2.675 | 0.008 | **H$_3$:Supported** |
| Purchasing process convenience | -0.034 | 0.087 | -0.034 | 0.389 | 0.698 | H$_4$: Not supported |
| Customer service | 0.472 | 0.069 | 0.473 | 6.832 | 0.000 | **H$_5$:Supported** |

Dependent Variable: Customer satisfaction.

**Table4. Regression results**

## 5. Conclusion

The aim of this work was to identify factors that determine customer satisfaction on the Internet. To achieve this goal, a comprehensive literature review was first conducted. In total, sixty scientific articles were reviewed during this process. Research papers have been carefully selected to ensure their veracity and veracity. A conceptual model was developed reflecting the relationship between each of the determining factors and the level of customer satisfaction on the Internet. Based on a conceptual model, the researchers proposed five hypotheses for this study.

Data were analyzed using SPSS, and multiple regression analysis was used to test the developed hypotheses. The analysis showed that customer service, website design and security prospects have a significant impact on customer satisfaction on the Internet. Consequently, three hypotheses were accepted, and the balance of the two hypotheses was rejected. Among the factors, customer service was identified as the most important factor, followed by website design and security prospects.

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