How the Firm can Build Customers’ Loyalty to Its Website

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Abstract
This study aims to explain how customer loyalty to a firm's website can be formed. The designed questionnaire was distributed to 600 e-buyers in Egypt. The collected data from 490 valid questionnaires were analyzed using spss.16 and amos.18. The results indicated that e-service quality dimensions are website information, website reliability, website ease of use, and website security. The results revealed that there is a significant and positive relationship between perceived e-service quality dimensions and e-customer satisfaction, there is a significant and positive relationship between e-customer satisfaction and e-customer loyalty and there is a significant and positive relationship between perceived ease of use of the website and e-customer loyalty.

Keywords: E-Service Quality-E-Customer Satisfaction-E-Customer loyalty.

Introduction
Internet is considered one of the main tools which firms use for marketing and selling their products and it is considered one of the methods which customers use for shopping and purchasing products. (Bart, et al.,2005) mentioned that the internet has become important marketing mean for firms. (Vos, et al.,2014) stated that nowadays, due to the growth of the use of e-services, the internet is considered a convenient mean to shop and buy. This study aims to answer the following questions:

Q1: What are the main dimensions of e-service quality in the Egyptian context?
Q2: Does e-service quality dimensions affect e-customer satisfaction significantly?
Q3: Does e-customer satisfaction impact e-customer loyalty significantly?
Q4: Do e-service quality dimensions influence e-customer loyalty directly and indirectly?

Literature Review
E-Service Quality and its dimensions
(Boyer, et al.,2002) defined e-service as the delivery of all interactive services on the internet using advanced information technologies. (Zeithaml, et al.,2002) defined e-service quality as a degree to which certain website facilitates customers' shopping, purchasing products, and delivering products to customers efficiently and effectively. (Parasuraman, et al.,2005) defined e-service quality as the extent to which a website facilitates efficient and effective shopping, purchasing, and delivery. (Santos,2003, Parasuraman, et al.,2005, Bauer, et al.,2006, Liao, et al.,2011) defined e-service quality as a customer's overall judgment on the quality of the services that are delivered through the internet. (Zeithaml, et al.,2000) concluded that the customers evaluate websites according to five criteria: information availability and content, ease of use, privacy and security, graphic style, and fulfillment of purpose. (Barnes and Vidgen,2001) built Web Qual scale which consists of three main dimensions; they are website design quality, website information quality, and website service quality.

(Yoo and Donthu's,2001) established a Site Qual scale which consists of four dimensions; they are ease of use, design, operating speed, and security. (Zeithaml, et al.,2002) built another e-service scale which consists of five main criteria for evaluating e-service quality; they are information availability and content, ease of use, privacy and security, design, and reliability. (Wolfinbarger and Gilly,2003) established the E-Tail Q scale which consists of four dimensions; they are design, reliability, security, and service. (Santos,2003) suggested another scale for measuring e-service quality which consists of ten dimensions; they are ease of use, shape, communication, structure, content, reliability, efficiency, support, communication, and security. (Song and Zinkhan,2003) found that factors affecting customers' evaluation of website quality are ease of searching for a website, ease of access to information, ease of purchasing, entertainment, and design. (Ribbink, et al.,2004) suggested that there are five dimensions of e-service quality; they are ease of use,
design, customization, responsiveness, and assurance. (Parasuraman, et al., 2005) suggested the E-S-Qual scale which consists of four dimensions; they are efficiency, the fulfillment of customer's needs, system availability, and privacy. (Parasuraman, et al., 2005) suggested the E-Rec-S-Qual scale which consists of three dimensions; they are responsiveness, compensation, and communication. (Bressolles, 2006) developed Net Qual scale which consists of five basic dimensions; they are ease of use, information, reliability, privacy, and interactive ability. (Santouridis, et al., 2009) mentioned that there are six dimensions of e-service quality; they are assurance, quality of information, responsiveness, assistance, empathy, and reliability. (Bult, 2016) concluded that there are four basic characteristics that customers use to evaluate e-service quality; they are the design of a website, the fulfillment of customer's needs, customer service, and security and privacy. (Collier and Bienstock, 2006) defined website ease of use as website usability that represents customers' ability to get information and finish the transactions with the lowest effort. Website usability includes ease of communication, ease of entering the website, ease of searching for information and downloading them, ease of submitting purchasing request, paying the price, or canceling the request. (Cheng, et al., 2012) defined perceived ease of use as the degree to which the person believes that usage of a certain website will be easy and doesn't need any effort. (Reibstein, 2002) suggested that perceived ease of use involves ease of browsing and ease of getting information. (Van Reil, et al., 2004) suggested that the website design dimension includes content, organization, and structure.

(Barnes and Vidgerr, 2001; Wolfinbarger and Gilly, 2003) indicated that information system quality consists of system quality that represents program quality and information quality that includes convenience, adequacy, completeness, brevity, accuracy, recentness, understandability, reliability, and accessibility. (Cristobal, et al., 2007) defined website reliability as the ability of an e-commerce firm to keep its promises toward its customers. Website reliability involves keeping selling conditions, inventory availability, and delivering in the determined timing. (Ribbink, et al., 2004) suggested that website security includes security of transactions, customer trust in e-commerce firms, and achieving privacy for customers. (Bart, et al., 2005) defined online privacy as protection from publishing customers' information via the internet. (Parasuraman, et al., 2005) defined website security and privacy as protecting the personal data of the customer and explicit and implicit agreement on not selling or disseminating information collected from customers.

(Kerkhof and Van Noort, 2010) stated that purchasing online is perceived as risky. (Miyazaki and Fernandez, 2001) mentioned that the key strategy of online marketers is to decrease customer risk and increase customer trust in online exchanges by displaying security and privacy policy on their websites. (Parasuraman, et al., 2005) found that the risk of misusing customer's information makes many people don't purchase online and e-commerce firm tends to demonstrate its privacy policy to its customers. (Fench and O'cass, 2001) mentioned that the causes of a positive customer attitude towards online purchasing are the security of electronic transactions, available shopping, and feeling of the importance of online purchasing. (Katos, 2012) defined e-customer trust as a non-opportunistic behavior of seller, customer's receiving of the products which he/she expects, and customer satisfaction with dealing with unknown online sellers. (Sahney, et al., 2013) defined e-customer trust as a customer's feeling of trustworthiness and security towards electronic transactions. (katos, 2012) defined e-perceived risk as an online seller's misuse of customers' personal information required to complete e-transactions. (Check and Ho, 2016) concluded that there is a significant relationship between e-customer trust and e-customer purchasing intentions.

**E-Customer Satisfaction**

(Oliver, 1980) mentioned that customer satisfaction refers to meeting the customer's expectations about the product. (Kotler, 1991) stated that satisfaction reflects a post-purchase evaluation of product quality given pre-purchase expectations. (Oliver, 1993) stated that if the perceived performance matches or exceeds the customers' expectations, they will be satisfied, and if it doesn't, they will be dissatisfied. (Szymanski and Hise's, 2000) defined satisfaction as a cumulative effect of a set of discrete experiences with the service provider over a period of time. (Severt, 2002) defined satisfaction as a global evaluation of all aspects that make up the customer relationship with the service. (Szymanski and Henard, 2001) defined e-satisfaction as the customers' judgment on their internet experiences compared to their experiences with the traditional way of dealing with customers. (Anderson and Srinivasan, 2003; Kim and Stoe, 2004; Boyer and Hut, 2006) defined e-customer satisfaction as continuous customer's evaluation of primary purchasing experience with an e-commerce firm. (Yi and La, 2004) defined accumulated e-customer satisfaction as an accumulated and pleasant fulfillment through multiple customer experiences with an e-commerce firm.

**E-Customer Loyalty**

Marketing scholars used many definitions of e-customer loyalty. (Edvardsson, et al., 2000) defined loyalty as a customer's intention to purchase from the same organization again. (Srinivasan, et al., 2002) defined e-customer loyalty as a customer's favorable attitude towards the e-retailer that results in repeat buying behavior. (Anderson and Srinivasan, 2003) defined e-customer loyalty as the tendency of customers to use a specific website continuously, visit it
frequently and spend a long time during the visit. (Anderson and Srinivasan, 2003) defined e-customer loyalty as a customer's favorable attitude toward an electronic business resulting in repeat buying behavior. (Flavian, et al., 2006) defined online loyalty as a customer's intention to buy from a certain website without change to another website. (Cyr, 2008) defined that e-customer loyalty as a customer's intention to revisit a website and purchasing from it in the future. (Ha, et al., 2010) defined e-customer repurchasing intentions as a consumer's willingness to repurchase product(s) offered from a specific website. (Chang, et al., 2014) defined e-customer repurchasing intentions as a probability of customer's usage of the same website(s) to purchase the same product(s). (Ball, et al., 2004) mentioned that there are two main dimensions for measuring customer loyalty: attitudinal loyalty and behavioral loyalty. (Bowen and Shoemaker, 1998) mentioned that attitudinal loyalty refers to customer's repurchase intentions. (Zeithaml, et al., 1996) mentioned that behavioral loyalty refers to customer's repurchase behavior.

**E-Service Quality and E-Customer Satisfaction**

(Zeithmal, et al., 2000) concluded that there is an association between e-service quality-related variables such as efficiency, reliability, and security, and e-customer satisfaction. (Smith, 2003) found that customers' satisfaction with e-services quality is affected by ease of transactions, perceived enjoyment, the security of customers' information, comfort, and time-saving. (Cristobal, et al., 2007) found that positive customer perceptions of e-service quality will result in satisfaction with the e-service of the website. (Sahadev and Purani, 2008) found that there is a significant relationship between components of e-service quality and e-customer satisfaction. (Fassnacht and Rose, 2007; Herrington and Weaven, 2009) suggested that perceived e-service quality affects significantly and positively e-customer satisfaction. (Kassim and Abdullah, 2010; Cheng, et al., 2012) suggested that ease of use, design, responsiveness, and security can affect positively e-customer satisfaction. (Ali, 2016) found that usability, performance, security, and privacy affect significantly customer experience with website browsing which affects significantly e-customer satisfaction and e-customer purchasing intentions. (Kemeny, et al., 2016) concluded that efficiency and responsiveness affect significantly and positively e-customer satisfaction which affects significantly and positively e-customer word of mouth. (Yi and La, 2004) indicated that e-service quality dimensions are predictors of e-customer satisfaction which is affected by the benefits gained from using the retailer's website. (Vos, et al., 2014) concluded that e-service quality dimensions have significant and positive impacts on e-customer satisfaction. According to the previous discussion, the first hypothesis was suggested as follows:

**H1:** There is a significant and positive relationship between e-service quality dimensions and e-customer satisfaction.

H1 involves the following sub-hypotheses:

**H1-a:** There is a significant and positive relationship between website ease of use and e-customer satisfaction.

**H1-b:** There is a significant and positive relationship between website information and e-customer satisfaction.

**H1-c:** There is a significant and positive relationship between website reliability and e-customer satisfaction.

**H1-d:** There is a significant and positive relationship between website security and e-customer satisfaction.

**E-Customer Satisfaction and E-Customer Loyalty**

(Zeithaml, et al., 1996; Bloemer, et al., 1998; Cronin, et al., 2000; Nguyen and Leblanc, 2002; Kassim and Abdullah, 2010; Baumann, et al., 2011; Amin, et al., 2013; Thaichan, et al., 2014) concluded that customer satisfaction has a positive impact on customer loyalty. (Harris and Goode, 2004) concluded that there is a significant relationship between e-customer satisfaction and e-customer loyalty. (Chiou and Shen, 2006) stated that e-loyalty is a consequence of satisfaction with the e-service provider. (Casalo, et al., 2008) stated that e-customer satisfaction is a key antecedent of customer e-loyalty. (Chang, et al., 2014) concluded that there is a positive relationship between e-customer satisfaction and e-customer repurchasing intentions. (Anderson and Srinivasan, 2003; Hsu, et al., 2013; Sreeram, et al., 2017) found that e-customer satisfaction affects significantly and positively e-customer loyalty. (Wong and Zhou, 2006; Gounaris, et al., 2010; Levy, 2014) mentioned that customers who are satisfied with internet banking are more likely to engage in a consistent relationship with internet banking in the future and demonstrate a more loyal behavior. (Wang and Kim, 2019) indicated that e-customer satisfaction affects significantly e-customer loyalty and this effect is greater for female customers than male customers. According to the previous discussion, the second hypothesis was suggested as follows:

**H2:** There is a significant and positive relationship between e-customer satisfaction and e-customer loyalty.

**E-Service Quality and E-Customer Loyalty**

(Zeithaml, et al., 1996) concluded that there is a significant relationship between superior e-service quality dimensions and behavioral intentions of customers like greater loyalty. (Chiu, et al., 2009) concluded that perceived website ease of use has a significant and positive effect on e-customer loyalty. (Carlson and O'Cass, 2010) found that perceived e-
service quality dimensions (ease of use; utility; enjoyment) affects significantly and positively customers' behavioral intentions (website's revisit intentions; the e-positive word of mouth; recommending others to revisit a website)

(Wolfinbarger and Gilly, 2002) mentioned that four main factors help in building e-customer loyalty; these factors are website design, website ease of use; fulfillment of users' needs, and website security. (Gera, 2011) indicated that e-service quality affects significantly perceived value which in turn affects significantly e-customer loyalty. (Vos, et al., 2014) found that e-service quality dimensions have significant and positive influences on e-customer loyalty. (Amin, 2016) indicated that e-service quality significantly affects e-customer satisfaction which consequently leads to e-customer loyalty. (Lee and Lin, 2005) emphasized that the perception of e-service quality is important for both attracting new potential customers and retaining current customers. According to the previous discussion, the third hypothesis was suggested as follows:

H3: There is a significant and positive relationship between e-service quality dimensions and e-customer loyalty. H3 involves the following sub-hypotheses:

H1-a: There is a significant and positive relationship between website ease of use and e-customer loyalty.
H1-b: There is a significant and positive relationship between website information and e-customer loyalty.
H1-c: There is a significant and positive relationship between website reliability and e-customer loyalty.
H1-d: There is a significant and positive relationship between website security and e-customer loyalty.

**Mediating effect of e-customer satisfaction on the relationship between e-service quality and e-customer loyalty**

(Jeon and Jeong, 2017) concluded that the website's service quality is the main predictor of e-customer satisfaction which leads to e-customer repurchasing intentions. (Al-dweeri, et al., 2018) found that e-customer satisfaction mediates the relationship between e-service quality and e-customer loyalty. (Krauss, et al., 2005) indicated that a firm's competitiveness can be reinforced by applying e-marketing and increasing e-customer loyalty. According to the previous discussion, the fourth hypothesis was suggested as follows:

H4: E-customer satisfaction mediates the relationship between e-service quality dimensions and e-customer loyalty. H4 involves the following sub-hypotheses:

H4-a: E-customer satisfaction mediates the relationship between website ease of use and e-customer loyalty.
H4-b: E-customer satisfaction mediates the relationship between website information and e-customer loyalty.
H4-c: E-customer satisfaction mediates the relationship between website reliability and e-customer loyalty.
H4-d: E-customer satisfaction mediates the relationship between website security and e-customer loyalty.

**Proposed model**

Figure(1) shows the proposed model which includes variables namely e-service quality dimensions, e-customer satisfaction, and e-customer loyalty.
**Figure (1): Proposed Model**

**Methods**

**Sampling and data collection**

The research sample size was 600 e-buyers in Egypt. The sample size was calculated by using a sample size calculator according to the following assumptions: population size = 1,520,000 Egyptian e-buyers, confidence level = 95%, and margin of error = ± 4%. The number of respondents was 490 e-buyers. The response rate was 81.67%.

The questionnaire used for collecting responses of users was designed and distributed online. Collected data were analyzed using Spss.16 and Amos.18.

**Measures**

The researcher used a 5-item scale which was developed by (Bressolles, et al., 2014) for measuring website ease of use. The researcher used a 5-item scale which was developed by (Bressolles and Durrieu, 2010) for measuring website information. The researcher used a 4-item scale which was developed by (Cristobal, et al., 2007 and Bressolles, et al., 2015) for measuring website reliability. The researcher used a 4-item scale which was developed by (Bressolles and Durrieu, 2010 and Bressolles, et al., 2015) for measuring website security. The researcher used a 5-item scale which was developed by (Oliver, 19980 and Ribbink, et al., 2004) for measuring e-customer satisfaction. The researcher used a 4-item scale which was developed by (Zeithmal, et al., 1996) for measuring e-customer loyalty. Table (1) shows the evaluation of research measures. It includes the reliability analysis using Cronbach's alpha (α) and composite reliability (CR), testing construct validity using factor loadings (λ), and testing convergent validity using average variance extracted (AVE).

**Table (1): Measurement Model Evaluation**

| Construct                        | Factor loadings (λ) | Cronbach's Alpha (α) | Composite Reliability (CR) | Average Variance Extracted (AVE) |
|----------------------------------|---------------------|----------------------|---------------------------|----------------------------------|
| Website Ease of Use             |                     |                      |                           |                                  |
| EOU1                             | 0.866               |                      |                           |                                  |
| EOU2                             | 0.809               |                      |                           |                                  |
| EOU3                             | 0.852               |                      |                           |                                  |
| EOU4                             | 0.852               |                      |                           |                                  |
| Website Information             |                     |                      |                           |                                  |
| WI1                              | 0.702               |                      |                           |                                  |
| WI2                              | 0.797               |                      |                           |                                  |
| WI3                              | 0.841               |                      |                           |                                  |
| WI4                              | 0.613               |                      |                           |                                  |
| WI5                              | 0.708               |                      |                           |                                  |
| Website Reliability             |                     |                      |                           |                                  |
| WR1                              | 0.836               |                      |                           |                                  |
| WR2                              | 0.810               |                      |                           |                                  |
| WR3                              | 0.745               |                      |                           |                                  |
| Website Security                |                     |                      |                           |                                  |
| WS1                              | 0.677               |                      |                           |                                  |
| WS2                              | 0.792               |                      |                           |                                  |
| WS3                              | 0.798               |                      |                           |                                  |
| WS4                              | 0.790               |                      |                           |                                  |
| E-Customer Satisfaction         |                     |                      |                           |                                  |
| ES1                              | 0.895               |                      |                           |                                  |
| ES2                              | 0.915               |                      |                           |                                  |
| ES3                              | 0.934               |                      |                           |                                  |
| ES4                              | 0.871               |                      |                           |                                  |
| E-Customer Loyalty              |                     |                      |                           |                                  |
| EL1                              | 0.823               |                      |                           |                                  |
| EL2                              | 0.828               |                      |                           |                                  |
| EL3                              | 0.858               |                      |                           |                                  |
| EL4                              | 0.840               |                      |                           |                                  |

*Note: EOU=website ease of use, WI=website information, WR=website reliability, WS=website security, ES=e-customer satisfaction, and EL=e-customer loyalty.*
Table (1) shows that all constructs exhibited acceptable composite reliability values exceeding the minimum limit of 0.7 suggested by (Bagozzi,1994). Table (1) shows that AVE (average variance extracted) for all constructs was greater than 0.5 confirming internal consistency and convergent validity (Fornell and Larcker,1981).

Exploratory factor analysis using principal component analysis extraction method and varimax rotation method was used on 24 items which represent dimensions of e-service quality, e-customer satisfaction, and e-customer loyalty. The Bartlett test of sphericity was significant ($\chi^2=7890.917$,df=276,sig=0.000)and the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO = 0.892) was greater than 0.5 which shows that the use of factor analysis was appropriate.24 items in the questionnaire were reduced to six factors. Factor loading for each scale item maintained the minimum standard of 0.5. These results are shown in table (1). The resultant factor structure explained 72.94 % of high communalities across the scale components. Eigenvalues for all six factors were greater than 1 (website ease of use=3.288, website information=3.123, website reliability =3.050, website security=2.972, e-customer satisfaction = 2.602, e-customer loyalty=2.471).

To test the construct validity of measures of research a confirmatory factor was computed also. Fit indices of the CFA model for e-service quality, e-customer satisfaction and e-customer loyalty are as follows: $\chi^2$/DF =3.265, $P = 0.000$, RMR = 0.038,RMSEA=0.082, GFI = 0.945, AGFI = 0.890, NFI = 0.946, RFI = 0.908, IFI = 0.958, TLI = 0.928, CFI = 0.958.$\chi^2$/ DF ≤ 3, RMR and RMSEA ≤ 0.08 and GFI, AGFI, NFI, RFI, IFI, TLI, and CFI ≥ 0.90. Fit values are well within the acceptable range. These values indicated that there is a good fit between estimated values and actual data (Bryne, 2010). All correlations are significant at 0.001. This result is presented in Table (2). Figure (2) illustrates the CFA model for measuring dimensions of e-service quality, e-customer satisfaction, and e-customer loyalty.

Table .2 Confirmatory factor analysis for measuring dimensions of e-service quality, e-customer satisfaction, and e-customer loyalty.

| Path | Standardized Regression Weights | Un-Standardized Regression Weights | Standard Error | Critical Ratio | Probability |
|------|---------------------------------|-----------------------------------|----------------|---------------|-------------|
| F1→EOU1 | 0.865 | 1.000 | - | - | - |
| F1→EOU4 | 0.847 | 0.946 | 0.065 | 14.521 | *** |
| F2→WI1 | 0.862 | 1.000 | - | - | - |
| F2→WI2 | 0.854 | 0.907 | 0.050 | 18.142 | *** |
| F3→WR1 | 0.867 | 1.000 | - | - | - |
| F3→WR2 | 0.836 | 0.976 | 0.054 | 18.049 | *** |
| F4→WS1 | 0.773 | 1.000 | - | - | - |
| F4→WS3 | 0.742 | 0.777 | 0.056 | 13.927 | *** |
| F5→ES3 | 0.821 | 1.000 | - | - | - |
| F5→ES2 | 0.935 | 0.900 | 0.043 | 21.174 | *** |
| F6→EL4 | 0.734 | 1.000 | - | - | - |
| F6→EL1 | 0.826 | 0.880 | 0.072 | 12.228 | *** |

Note. ***: $P < 0.001$. 

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Figure 2 CFA model for measuring dimensions of e-service quality, e-customer satisfaction, and e-customer loyalty

Table (3) shows that the square root of AVE for each construct was greater than the absolute value of the correlation between each pair of constructs confirming discriminant validity.

| Construct | Square Root Of AVE | EOU | WI | WR | WS | ES | EL |
|-----------|-------------------|-----|----|----|----|----|----|
| EOU       | 0.845             | 1   |    |    |    |    |    |
| WI        | 0.715             | 0.405** | 1   |    |    |    |    |
| WR        | 0.798             | 0.250** | 0.527** | 1 |    |    |    |
| WS        | 0.766             | 0.295** | 0.541** | 0.562** | 1 |    |    |
| ES        | 0.904             | 0.255** | 0.632** | 0.603** | 0.564** | 1 |    |
| EL        | 0.837             | 0.425** | 0.381** | 0.249** | 0.378** | 0.444** | 1 |

Note. ** Correlation is significant at the 0.01 level.

Findings

The proposed hypotheses in the proposed model (H1-H4) were tested by using the structural equation modeling technique (SEM) through path analysis. Table (4) shows the results of path analysis for the research model.

| Significant Path | Standardized Regression Weight | Unstandardized Regression Weight | S.E. | T-value | P. |
|------------------|--------------------------------|----------------------------------|------|---------|----|
| EOU→ES           | 0.221                          | 0.206                            | 0.037| 6.023   | ***|
| WI→ES            | 0.207                          | 0.231                            | 0.035| 5.936   | ***|
| WR→ES            | 0.270                          | 0.282                            | 0.039| 6.973   | ***|
| WS→ES            | 0.213                          | 0.235                            | 0.035| 6.006   | ***|
| ES→EL            | 0.261                          | 0.327                            | 0.035| 7.546   | ***|
| EOU→EL           | 0.232                          | 0.271                            | 0.037| 6.250   | ***|

Note. ***: P< 0.001.
Fit indices of bath analysis for the tested research model are as follows: $\chi^2/DF = 2.847, P = 0.000$, $RMR = 0.017, RMSEA = 0.061$, $GFI = 0.994, AGFI = 0.960, NFI = 0.991, RFI = 0.954, IFI = 0.994, TLI = 0.970, CFI = 0.994$. Fit values are well within the acceptable range. These values indicated that there is a good fit between the structural model and data. Figure (3) shows the tested model. According to the results of the path analysis, all dimensions of e-service quality (ease of use, information, reliability, and security) affect significantly and positively e-customer satisfaction. So, H1 was supported. This result coincides with the results of previous studies. E-customer satisfaction affects significantly and positively e-customer loyalty. So, H2 was supported. This result coincides with the results of previous studies. Website ease of use dimension only affects significantly and positively e-customer loyalty. So, H3 was supported partially. This result coincides with the results of previous studies. E-customer satisfaction mediates the relationship between all e-service quality dimensions and e-customer loyalty. So, H4 was supported. This result coincides with the results of previous studies. Table (5) shows the mediating effect of e-customer satisfaction on the relationship between e-service dimensions and e-customer loyalty. According to regression analysis, all e-service quality dimensions explain 50.9% of variation in e-customer satisfaction ($F = 127.593, \text{Sig} = 0.000$). E-customer satisfaction explains 19.6% of variation in e-customer loyalty ($F = 119.868, \text{Sig} = 0.000$). Website ease of use dimension explains 16.8% of variation in e-customer loyalty ($F = 99.957, \text{Sig} = 0.000$).

Table 5: Mediating effect of e-customer satisfaction on the relationship between e-service quality dimensions and e-customer loyalty

| Construct   | Direct Effect | Indirect Effect | Total Effect |
|-------------|---------------|-----------------|--------------|
| EOU         | 0.271         | 0.067           | 0.338        |
| WI          | 0.000         | 0.075           | 0.075        |
| WR          | 0.000         | 0.092           | 0.092        |
| WS          | 0.000         | 0.077           | 0.077        |

Figure 3: Tested Model

Managerial Implications and recommendations

E-commerce firms should build high e-customer loyalty. An e-commerce firm can build high customer loyalty to its website by increasing customer satisfaction with its website. E-customer satisfaction can be accomplished by increasing perceived e-service quality dimensions. There are many ways to increase perceived e-service quality. Increasing perceived website information can be achieved by providing the customers with suitable, adequate, detailed, accurate, and recent information about offered products. Increasing perceived website reliability can be achieved by providing the customers with information about inventory availability, methods of delivery, and timing of delivery, and keeping the promises offered to the customers. Increasing perceived website ease of use can be accomplished through the ease of entering the website, ease of browsing and searching for information, and ease of completing transactions. Increasing perceived website security can be done by protecting and securing customers’ data and explaining the firm’s privacy policy to its customers.

Future Research
Other topics can be studied in this field such as the impact of using ads on social media on customer buying intentions, customer word of mouth, and customer loyalty.

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Appendix: Questionnaire items:

| Variables and Sources | Items |
|-----------------------|-------|
| **Website's Ease of use** (Bressolles, et al., 2014) | 1. The website which I deal with is easy to use (EOU1). |
|                       | 2. It is easy to search for information and products through browsing the website which I deal with (EOU2). |
|                       | 3. It is easy to browse through the website which I deal with and access to information and products that I search for (EOU3). |
|                       | 4. The design of the website which I deal with makes it easy to search for information and products (EOU4). |
| **Website's information** (Bressolles and Durrieu, 2010) | 5. The website which I deal with provides accurate information about offered products (WI1). |
|                       | 6. The website which I deal with provides adequate information about offered products (WI2). |
|                       | 7. The website which I deal with provides recent information about offered products (WI3). |
|                       | 8. The website which I deal with provides detailed information about offered products (WI4). |
|                       | 9. The website which I deal with provides information related to offered products (WI5). |
| **Website's reliability** (Bressolles, et al., 2015; Cristobal, et al., 2007) | 10. The website which I deal with provides information about the availability of offered products' inventory (WR1). |
|                       | 11. The website which I deal with provides information about alternative methods of delivering sold products (WR2). |
|                       | 12. The website which I deal with provides information about the timings of delivering sold products (WR3). |
|                       | 13. The website which I deal with keeps its promises offered to its customers (WR4). |
| **Website's security** (Bressolles and Durrieu, 2010; Bressolles, et al., 2015) | 14. I think that my personal information submitted to the website that I deal with are secured and protected (WS1). |
|                       | 15. I trust that the website which I deal with will not use my personal information for an improper purpose (WS2). |
|                       | 16. I trust the whole security of the website which I deal with (WS3). |
|                       | 17. I trust that the website which I deal with will not misuse my personal information (WS4). |
| **E-customer satisfaction** (Oliver, 1980; Ribbink, et al., 2004) | 18. I am happy because I buy products from the website that I deal with (ES1). |
|                       | 19. In general, I am pleased with the services of the website which I deal with (ES2). |
|                       | 20. I am satisfied with the services of the website which I deal with (ES3). |
|                       | 21. The website which I deal with is enjoying (ES4). |
| **E-customer loyalty** Zeithmal, Berry and Parasuraman, 1996 | 22. I use a certain website (s) when I need to purchase a certain product (s) (EL1). |
|                       | 23. When I need to purchase certain products, certain websites are considered my first choice (EL2). |
|                       | 24. I prefer certain websites for purchasing certain products (EL3). |
|                       | 25. I believe that the website which I deal with is preferred for purchasing (EL4). |