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# Electronic Word of Mouth, Online Advertisement Value and Attitude Toward Egyptian Websites as Antecedents Of Online Purchase Intention: An Extended Technology Acceptance Model

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# ELECTRONIC WORD OF MOUTH, ONLINE ADVERTISING AND ATTITUDE TOWARD EGYPTIAN WEBSITES AS ANTECEDENTS OF ONLINE PURCHASE INTENTION: EMPIRICAL FINDINGS FROM EGYPT

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## ABSTRACT

The understanding of the antecedent of online purchase intentions is imperative for the growth of electronic commerce. This paper extended the technology acceptance model by three factors electronic word of mouth, online advertisement value, and attitude toward Egyptian websites, and empirically examined the proposed model among Egyptian Internet users. Furthermore, based on online purchase intention, market segmentation was conducted. A structured online questionnaire was used to collect 479 responses. Explanatory factor analysis and cluster analysis were performed using SPSS software; the structural equation modeling and hypotheses testing were examined using Amos IBM. The paper contributed by identifying the main factors shaping internet users' intention toward online shopping in Egypt. Results revealed that perceived enjoyment had the most influence, followed by electronic word of mouth. Besides, perceived enjoyment totally mediated the relationships between online advertisement value, information usefulness and behavioral intention. Also, there was a significant negative relationship between the attitude towards Egyptian websites and the perceived risk. Three groups resulted from cluster analysis, online shoppers' lovers, potential online shoppers, and online shoppers' avoiders. Online shoppers' lovers had the highest online purchase intention and the lowest perceived risk; they recorded the highest perceived enjoyment, information usefulness, perceived ease of use, and electronic word of mouth. The online shoppers' avoiders had the lowest online purchase intention and the highest perceived risk. The potential online shoppers recorded values are not as high as the lovers nor low as the avoiders. The findings of this study provide important information to marketers about the behavioral characteristics of each consumer segment.

**Keywords:** Online Consumer Behavior, Electronic Word of Mouth, Online Advertisement Value, Attitude toward Egyptian Websites, Technology Acceptance Model, Market Segmentation, Two-step Cluster Analysis.

# 1. INTRODUCTION

The diffusion of information and communication technology led business-to-consumer electronic commerce (B2C e-commerce) to emergence. Compared to traditional brick-and-mortar retailers, B2C e-commerce has many benefits. Customers can shop online at any time, search for information and discover product varieties. Also, they can interact with others, share their personal experiences, and read reviews about products using social network sites [1, 2]. Accordingly, online consumers enjoy the benefits of being continuously informed. As well, products are delivered at the door eliminating the need to drive or wait in lines. As for business organizations, the Internet provides them with an interactive platform that enables global market reach and an easy way to communicate with their customers [3]. The Internet is recognized as the fastest-growing marketing channel [4].

Understanding the behavior of customers is imperative for the success and prosperity of business organizations. Consumer behavior refers to the actions taken by consumers in the marketplace and the motivation for those actions. The study of consumer behavior has attracted researchers for decades [5-7]. For companies to survive in a dynamic environment and promote the acceptance of B2C e-commerce, it is essential to understand the factors affecting the acceptance of online shopping among Internet users [8-11].

Market segmentation involves dividing a large market of potential customers into clearly identifiable groups that share common interests, needs, and demands. Segmentation could be performed based on consumers' demographics, lifestyles, and usage behaviors [12]. Market segmentation enables companies to efficiently reach their customers, optimize the use of their resources and increase their competitiveness. Customer segmentation provides an understanding of the characteristics of each group [13], enabling companies to manage their marketing expenses and personalize their advertising based on shoppers' preferences leading to increase customer satisfaction and loyalty [14]. Segmenting Internet users allows online retailers to gain new customers and better serve and maintain older ones.

Digital transformation is one of the priorities of the government of Egypt. Egypt has more than 50 million Internet users; so, B2C E-commerce is a promising sector for the development of Egypt. In 2019, Egypt ranked 102 out of 152 countries in the business-to-consumer E-commerce index; Egypt has moved its rank 11 places compared to its position in 2018. However, the road to fully embracing e-commerce still needs improvement [15]. Therefore, understanding online consumer behavior is crucial to achieving economic growth.

Considering that online shopping is still at the early stage of development in Egypt, there is a need to explore the behavior of consumers toward adopting this digital channel. In pursuing the goal of understanding the factors that influence the growth of B2C e-commerce in Egypt, this research examined the relationship between online purchase intention and seven factors. The factors are online advertisement value,

electronic word of mouth, information usefulness, perceived ease of use, perceived enjoyment, perceived risk, and attitude toward Egyptian websites. Regarding market segmentation, former research provided different classifications for Internet users [16], [17]. To the best of our knowledge, no studies regarding the segmentation of Egyptian Internet users exist. Segmenting consumers based on demographic variables does not address the unobserved heterogeneity between individuals. So, this research aims to fill in this gap by presenting a segmentation of Egyptian Internet users based on proposed constructs.

Accordingly, this research is organized as follows: after this introductory section, section two presents the proposed model and the hypotheses. Section three includes explanatory data analysis using the SPSS, structural equation modeling (SEM) using IBM Amos software, and hypothesis testing. In section four, the segmentation of Internet users and the description for each group are provided. Discussion of the main results is developed in section five. The study limitations and future work are illustrated in section six, followed by the conclusion presented in section seven.

## 2. THE PROPOSED CONCEPTUAL MODEL AND RESEARCH HYPOTHESES

Researchers proposed many models to understand the acceptance of new information systems. Ajzen [6] clarified that intention is an indicator of the willingness of a person to exert effort to accomplish a planned behavior. Behavioral intention is considered a predictor of actual behavior [18]. One of the most popular models is the technology acceptance model (TAM) [19]. According to the original TAM, the intention toward a new system depends on how the user believes that the system is useful and is easy to use. Davis [19] defined the perceived usefulness as *the degree to which an individual believes that using a particular system would enhance his or her job performance* and defined perceived ease of use *as the degree to which an individual believes that using a particular system would be free of physical and mental effort*. Many researchers extended the original TAM [20, 21]. For instance, Davis [22] added to the TAM the perceived enjoyment an intrinsic motivation that reflects the pleasure associated with using a system. Many researchers empirically tested the TAM to understand online consumer behavior [23, 24]. Moon and Kim [25] and Klopping and Mckinney [26] extended the TAM to fit the B2C e-commerce. Kim and Byramjee [27] emphasized that the online market involves more uncertainties than the traditional one. As a result, their extended model included a construct to refer to the uncertainty associated with online transactions and examined its relationship to online shopping intention. In the online context, purchase intention refers to the process of planning to buy a product or service online. Online purchase intention (OPI) refers to the willingness of a consumer to buy a product or service via internet stores.

Erkan and Evans [28] revealed that information availability influences purchasing decisions. The Internet offered companies a low-cost communication platform and allowed a closer relationship with consumers. Online advertising has several

characteristics that differentiate it from other traditional advertising methods such as newspapers and television. Marketers can easily and quickly modify an ad to fit consumers' needs and market conditions. Online advertising allows companies real-time, one-to-one customized communication with consumers. It permitted knowing with confidence what content a particular consumer is viewing; hence, measuring its impact is faster than other traditional methods [29]. Also, customers could be segmented and targeted based on their preferences. Moreover, Although Internet users may not engage with online advertisements, the results of Dreze and Hussherr [30] confirmed its positive effect on brand awareness.

Before the Internet, consumers shared their experiences through word of mouth; electronic word of mouth emerged because the Internet facilitated communication between online users. The Internet eased the way consumers share information, discuss their opinions, and reviews products or services.

Therefore, this research not only examines the relationships between information usefulness, the ease of online transactions, and the perceived risk to shop online; but also includes two factors one of them represents the information displayed to the Internet users through online advertisement and the second one refers to other users opinions and reviews. B2C e-commerce in Egypt is in its early stages. So, the model includes a factor that refers to the attitude toward Egyptian websites. Figure 1 illustrates the conceptual framework proposed in this research.

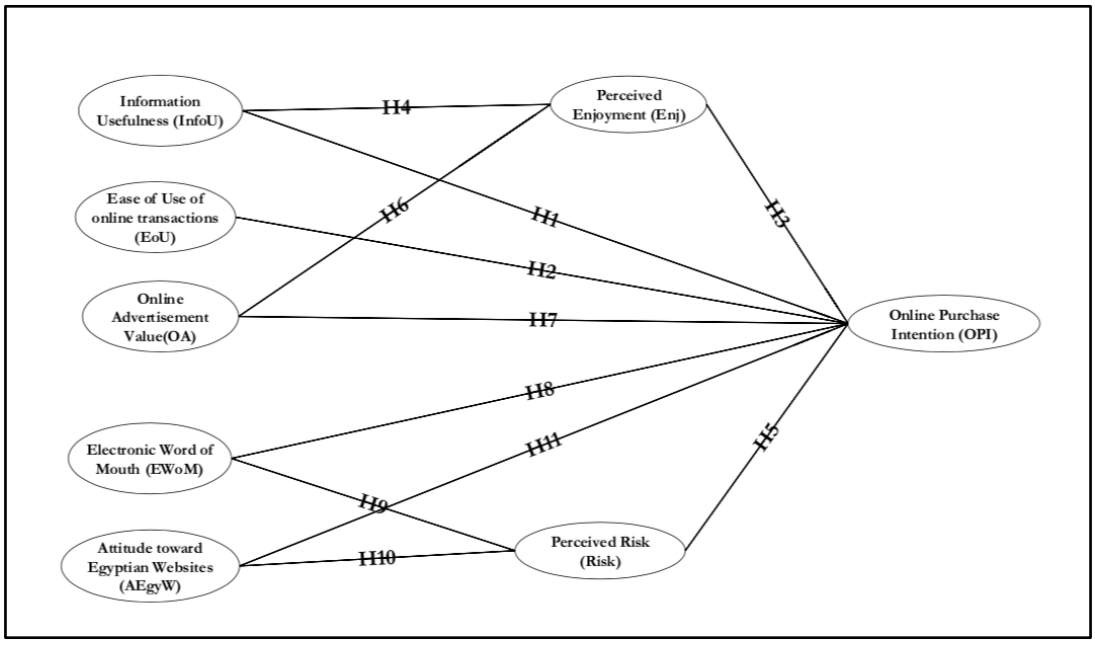


**Figure 1**: The conceptual framework for the factors influencing online purchase intention among Egyptian Internet users.

## 2.1 Information Usefulness (InfoU)

Many researchers have emphasized the positive influence of the perceived benefits of online shopping on the intention to online shopping [31]. Purchasers evaluate the cost and benefits of online shopping, and the results of this evaluation influence their decisions toward online shopping. The Internet not only offers consumers an easy way to search and access information; but also, enables companies to tailor the delivered

information based on the consumers' preferences. Lim et al. [32] defined perceived usefulness as *the extent to which consumers feel the online website could add value and efficacy to them when performing online shopping*.

This research focuses on information usefulness (InfoU) as one of the most significant e-commerce usefulness dimensions [33, 34]. Information usefulness refers to how users perceive the information provided about the product as valuable in making the purchase decision. Consumers are likely to shop online when the provided information on websites is helpful for the decision-making process [28, 35]. In the survey, respondents were asked if surfing websites is considered an easy way to find information about products or services; and how the provided information is beneficial to know about product varieties and give them a broader selection. If the website provided surfer with information that satisfies their needs and answers all questions concerning products they search for, this would increase their intention to shop online. O'Cass and Fenech's [36] results confirmed the positive relationship between information usefulness and online shopping motivations. Accordingly, the relationship between information usefulness (InfoU) and online purchase intention was examined.

**H1**: There is a positive relationship between InfoU and OPI

## 2.2 The Easiness of Use of Online Transaction (EoU)

The intention to use the Internet to buy products or services is associated with the ease of use of online transactions. How the users perceive searching online for products and processing the online order is easy affects their intention to use the platform to buy products. If consumers think that online transactions are complicated, this will delay the diffusion of online shopping. In the online context, the easiness of online transactions refers to the ability to perform online transactions without effort. The degree to which an individual believes that online transactions are easy to do and do not require a mental or physical struggle. The results of Tadon et al. [37] confirmed that the ease of navigation and the ease of accessing the site had an immense impact on the users to buy from websites. Accordingly, the proposed model examined the relationship between perceived ease of use (EoU) and online purchase intention.

**H2**: There is a positive relationship between EoU and OPI

## 2.3 The Perceived Enjoyment (Enj)

There is an established relationship between traditional shopping and entertainment. In the online context, perceived enjoyment refers to the extent to which people appreciate surfing websites and feel entertained [38]. The higher the perceived enjoyment, the more likely the users utilize websites to purchase products/services. In the online context, enjoyment refers to the degree of pleasure and fun during the online shopping process. Previous research among Egyptian Internet users confirmed that enjoyment is the key driver in the adoption of online shopping. The results of Aref and Okasha [39] empirically supported the positive relationship between perceived usefulness and enjoyment. It is expected that when users perceive websites as informative, they will enjoy Internet surfing and shopping. This research examined the relationship between

perceived enjoyment and the intention to shop online; as well as the relationship between information usefulness and perceived enjoyment was analyzed.

**H3**: There is a positive relationship between Enj and OPI.

**H4**: There is a positive relationship between InfoU and Enj.

## 2.4 The Perceived Risk (Risk)

In 1960, the concept of perceived risk was introduced by Bauer and defined as *the uncertainty associated with a consumer's actions* [40]. Consumers perceive risk when they feel that they are going to face unwanted consequences. In the online context, customers cannot check the products physically and inspect their quality; they will rely on the information provided on websites. Also, they lack face-to-face interaction. Therefore, online shopping is facing a higher perceived risk than traditional one [41]. The higher the recognized thread by online consumers, the more they will prefer traditional retailers. Previous research confirmed that the perceived risk has a negative relationship with intentions to online shopping [42; 43]. The results of Aref and Okasha [39] revealed that perceived risk is the main obstacle in the adoption of online shopping in Egypt. Previous studies have treated the perceived risk as a multi-dimensional construct [44; 45]. This research focused on two dimensions of risk. The first is the risk associated with products, such as not receiving the required product or not receiving the product at the mentioned time or that the quality is not as expected. The second one is the risk associated with the loss of money or financial data.

**H5**: There is a negative relationship between Risk and OPI.

## 2.5 Online Advertisement Value (OA)

The Internet offered companies a low-cost communication platform and allowed a closer relationship with consumers. Online advertising is different from other traditional advertising methods such as newspapers and television. Online advertising entitled companies real-time, one-to-one customized communication with consumers and can be modified based on consumers' needs and market conditions. Moreover, measuring its impact is faster than other traditional methods [29]. Acknowledging the characteristics and preferences of consumers allows that online ads to be targeted to achieve better outcomes. Although the interactivity of the Internet allows consumers to pull out from engaging with online advertisements, the findings of Dreze and Hussherr [30] showed that advertising still has a positive effect on the awareness of the brand.

The value of an online advertisement is measured by the degree of providing consumers with resourceful information, fulfilling the surfer's needs for entertainment [46]. The results of Schlosser et al. [47] confirmed that informative advertising significantly influences purchase intention. The results of Tsang et al. [48] affirmed that the information and the entertainment resulting from the ad are crucial predictors of the effectiveness of web advertising; intention to buy the product increases as the value of the advertisement increases. Therefore, the relationships between the value of online advertising, perceived enjoyment, and online purchase intention were tested.

**H6:** There is a positive relationship between OA and Enj

**H7:** There is a positive relationship between OA and OPI.

## 2.6 Electronic Word of Mouth (EWoM)

Before the Internet, consumers shared their experiences through word of mouth; electronic word of mouth emerged because the Internet facilitated communication between online users. The Internet eased the way consumers share information, discuss their opinions, and reviews products or services. The knowledge resulting from the interaction between Internet users can influence their decisions to shop online [1, 49], [50]. The work of Zhu and Zhang [51] concluded that products with more favorable reviews generally sell better. The findings of Erkan and Evans [28] displayed a significant positive relationship between EWoM and online purchase intention. Ismagilova et al. [52] revealed that, in comparison with traditional media, consumers perceived EWoM more credible. EWoM enables consumers to be more confident in understanding products/services [53]. Also, Flanagin et al. [54] affirmed that product ratings are considered reliable indicators of product quality and may reduce risk perceived with online transactions. So, the relationships between electronic word of mouth, perceived risk, and online purchase intention were studied.

**H8:** There is a positive relationship between EWoM and OPI.

**H9:** There is a negative relationship between EWoM and Risk.

## 2.7 The Attitude toward Egyptian Websites (AEgyW)

In marketing and information systems research, attitude is an important concept. Kotler [4] defined attitude as *a person's enduring favorable or unfavorable evaluations, emotional feelings, and action tendencies toward some object or idea*. A website is considered an essential tool to deliver information about products and services, improve the organization's competitive edge positioning and increase sales. The attitude toward a website is related to the site design and appeal, navigability and ease of use, and quality of information on the site [55]. As B2C e-commerce is still in the development phase, a construct referring to the attitude toward existing Egyptian websites is added to the proposed model to examine the relationship between the intention to shop online and the attitude toward existing sites. Furthermore, the author believes that a positive attitude toward Egyptian websites may reduce the uncertainty faced by Egyptian Internet users; therefore, the relationship between this construct and the perceived risk was examined.

**H10:** there is a positive relationship between AEgyW and Risk.

**H11:** there is a positive relationship between AEgyW and OPI.

# 3. RESEARCH METHODOLOGY

## 3.1 Sample and Data Collection

The present study used a structured web-based survey, and the link to the questionnaire was shared online across social networks. So, non-probability sampling was adopted for its practicality [56]. In the first part of the questionnaire, respondents were asked to choose one suitable answer for each question ranging from 1 for strongly disagree and 5 for strongly agree; this part included 32 statements. The second part contained questions regarding demographic data of the respondents and Internet usage. A pilot study was conducted to pretest the questionnaire wording and clarity. A brief introduction was written to illustrate the purpose of the survey and encourage respondents to answer it. In order to increase the participation, the questionnaire link was shared several times; 479 responses were collected. The statements used to measure each of the constructs are presented in the appendix.

Opinions regarding the minimum sample size have varied. Some researchers argued that the minimum sample size recommended for structural equation modeling is 200. On the other hand, other researchers stated that based on the complexity of the model, the sample size should be identified [57, 58]. A rule of thumb is ten observations for each statement; however, some researchers argued that the adequate sample size should be proportional to the ratio of indicators to the latent variables. If this ratio is equal to three, then the sample size should be more than 200; and if this ratio is four, then the sample size should not be less than 100 [59]. The proposed model included 32 indicators and eight latent variables. So, the ratio between indicators and latent variables is equal to 4. Therefore, the size of the sample in this research, which is 479, is acceptable.

Statistical package for social science (SPSS) version 26 was used for descriptive analysis, reliability testing, and exploratory factor analysis. For confirmatory analysis and goodness-of-fit indices, IBM Amos version 21 was used. About gender, 72% of the respondents were female. Regarding gender, 72% of the respondents were female. Regarding the age, 48.2% are aged from 20 to less than 30 years, followed by 31.5% aged less than 20 years, and 20.3% aged more than 30. Concerning when they started using the Internet, 39.7%% of the respondents used the Internet for three to six years, followed by 37.2% who used the Internet for more than six years. Regarding the daily usage of the Internet, 39.9% of the respondents use the Internet from three to six hours, followed by 31.9% using it for less than three hours daily and 28.2% for more than 6 hours.

## 3.2 Explanatory Factor Analysis

An exploratory factor analysis (EFA) using the Maximum Likelihood method with Promax as rotation methods; and the number of factors to be eight was conducted. The Kaiser-Meyer–Olkin (KMO) results were 0.856 implying that the sample size was appropriate for factor analysis. Hair et al. [57] recommended the removal of items that have loading factors less than 0.4. Consequently, one item related to electronic word of

mouth (EWoM1) and one relevant to product risk (PR1) were removed. The total variability explained is 62.4%. The Barlett's test and goodness of fit Chi-square were significant (p-value < 0.001).

The items used for the same construct should be highly correlated together, and each construct should differ from the others; therefore, convergent and discriminant validity tests were conducted. Convergent and discriminant validity tests were conducted. Convergent validity tests that the items are highly correlated; Cronbach's alpha, construct reliability (CR), and average variance extraction (AVE) are indicators of convergent validity. For construct reliability (CR) value of 0.7 or higher indicates the existence of internal consistency, while for the average variance extraction (AVE), a value of 0.5 or higher means adequate convergence. The overall Cronbach alpha for the model was equal to 0.858 based on a total of 30 items. While discriminant validity tests the extent to which constructs differ from the others. To reach enough discriminant validity, the correlation values of different constructs should be lower than any of their square roots of AVEs [60], [61]. The reliability and validity measurements are shown in Table 1; each reliability coefficient is higher than 0.7, indicating internal consistency. The discriminant validity statistics for each factor are displayed in Table 2. The diagonal of Table 2 presented the square root of the AVE of the constructs. According to Tables 1 and 2, the proposed model showed high validity.

**Table 1**. Summary of reliability statistics

| Constructs | Code | Items | Cronbach alpha | CR | AVE |
|---|---|---|---|---|---|
| Information Usefulness | InfoU | 4 | 0.823 | 0.822 | 0.541 |
| Perceived Risk | Risk | 5 | 0.844 | 0.847 | 0.532 |
| Perceived Enjoyment | Enj | 4 | 0.835 | 0.841 | 0.574 |
| The Perceived Ease of Use | EoU | 3 | 0.889 | 0.894 | 0.738 |
| Online Advertisement Value | OA | 4 | 0.847 | 0.862 | 0.622 |
| Electronic Word of Mouth | EWoM | 3 | 0.867 | 0.878 | 0.708 |
| Attitude toward Egyptian Websites | AEgyW | 4 | 0.812 | 0.820 | 0.538 |
| Online Purchase Intention | OPI | 3 | 0.907 | 0.908 | 0.767 |

**Table 2**. The discriminant validity statistics.

| | InfoU | Risk | En | EoU | OA | EWoM | AEgyW | OPI |
|---|---|---|---|---|---|---|---|---|
| InfoU | **0.736** | | | | | | | |
| Risk | -0.076 | **0.730** | | | | | | |
| Enj | 0.626 | -0.100 | **0.757** | | | | | |
| EoU | 0.604 | -0.013 | 0.473 | **0.859** | | | | |
| OA | 0.198 | -0.053 | 0.217 | 0.135 | **0.789** | | | |
| EWoM | 0.451 | -0.116 | 0.345 | 0.457 | 0.259 | **0.842** | | |
| AEgyW | 0.133 | -0.177 | 0.072 | -0.009 | 0.384 | 0.187 | **0.733** | |
| OPI | 0.575 | -0.275 | 0.665 | 0.521 | 0.173 | 0.549 | 0.126 | **0.876** |

## 3.3 Common Method Variance

To assess common method bias, Harman's single-factor test was conducted. All variables were loaded into an exploratory factor analysis. The results revealed eight factors accounting for 62.4% of the variance and that no single factor accounted for the majority of the variance, since the first factor accounted for 13.5% of the variance. Then, following Podsakoff et al. [62], the single-method-factor approach, in confirmatory factor analysis (CFA), was done by adding a common latent factor to the model. The results concluded that common method bias is not a concern for this study.

## 3.4 Confirmatory Factor Analysis

The relationship between the value of online advertisement, electronic word of mouth, perceived enjoyment, information usefulness, ease of use, risk, the attitude toward Egyptian websites and the intention to shop through websites, is examined through structural equation modeling using the Maximum Likelihood technique. Structural equation modeling (SEM) is a powerful technique used in social science, especially when the variables cannot be directly measured and latent variables are used [58]. The ratio of minimum discrepancy to the degree of freedom (CMIN/DF) was 1.519, indicating an adequate fit. Goodness-of-fit indices like comparative fit index (CFI = 0.996) and incremental fit index (IFI = 0.996) had values greater than 0.9. Goodness-of-fit index (GFI = 0.993), adjusted goodness-of-fit index (AGFI = 0.972) and normed fit index (NFI = 0.989) had values greater than 0.8. Root mean square error of approximation (RMSEA = 0.0330) was less than 0.06 and Pclose = 0.770 was greater than 0.05. Therefore, according to the recommended cut-off values by Byrne [61], the proposed model was found to be adequate. The graphical result of SEM analysis is shown in Figure 2, where directional arrows are used for causal relationships, and the curved arrows symbolize the covariance among variables.

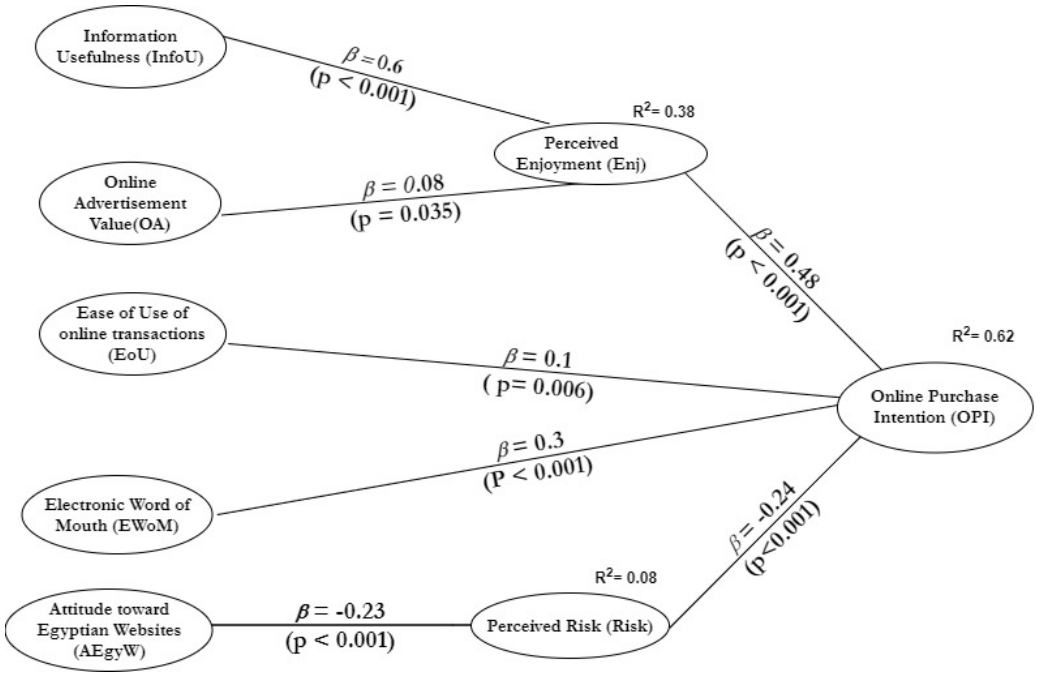


**Figure 2.** Path analysis results for the factors influencing online purchase intention among Egyptian Internet users.

## 3.5 Data Analysis

Direct and indirect relationships were examined to analyze the causal relationship between variables. Mediation could be partial or total based on significant direct and indirect effects [58]. Total mediation occurs when the relationship between the independent and the dependent variable is significant only with the mediator variable; otherwise, if there is a direct significant relationship between the independent and the dependent variable and a mediated one, the mediation is partial.

The results confirmed the positive relationship between perceived ease of use, perceived enjoyment, electronic word of mouth and online purchase intention. In addition, there is a significant positive relationship between information usefulness, online advertisement value and perceived enjoyment. On the other hand, there is a significant negative relationship between the perceived risk and online purchase intention. The results of this research confirmed previous ones in the Egyptian online context [38, 39]. The results revealed a significant negative relationship between the attitude toward Egyptian websites and the perceived risk. Although, the results of this study confirmed the results of El-Seidi and El-Baz [63] that electronic word of mouth has a significant positive effect on online purchase intention. The negative relationship between electronic word of mouth and the perceived risk was not supported.

The results led to the rejection of hypotheses (H1) and (H6). The direct relationships between information usefulness, online advertisement value and online purchase intention were not supported. Perceived enjoyment totally mediated the relationship between online advertisement value, information usefulness and online purchase intention. Likewise, the hypothesis (H11) concerning the direct positive relationship between the attitude toward Egyptian websites and the intention to shop online was rejected. Perceived risk totally mediated the relationship between the attitude toward Egyptian websites and online purchase intention.

Furthermore, the results showed there is a mutual significant relationship between the value of online advertisement and the information usefulness is significant (InfoU <-> OA ($\beta$ = 0.194, S.E. = 0.042, P < 0.001). Also, there is a significant mutual relationship between electronic word of mouth and information usefulness (InfoU <-> EWoM ($\beta$ = 0.466, S.E. = 0.048, p < 0.001); confirming the results of Matute et al. [64] that the EWoM influence the usefulness of shopping from websites, Internet surfers believe that online reviews help them in their decision about products. The standardized estimates along with critical ratios (C.R.), the associated probability, and the hypotheses results are presented in Table 3.

**Table 3**. Standardized estimates for the model, their associated probability, and the hypotheses results

| | | | Estimate | S.E. | C.R. | P | Hypotheses |
|---|---|---|---|---|---|---|---|
| OPI | <--- | InfoU | .088 | .044 | 1.901 | .057 | H1 Rejected |
| OPI | <--- | EoU | .099 | .038 | 2.759 | .006 | H2 Accepted |
| OPI | <--- | Enj | .478 | .036 | 13.396 | *** | H3 Accepted |
| Enj | <--- | InfoU | .595 | .047 | 11.925 | *** | H4 Accepted |
| Enj | <--- | OA | .078 | .036 | 2.114 | .035 | H5 Accepted |
| OPI | <--- | OA | -.071 | .031 | -2.676 | .007 | H6 Rejected |
| OPI | <--- | Risk | -.237 | .029 | -7.870 | *** | H7 Accepted |
| OPI | <--- | EWoM | .291 | .033 | 8.213 | *** | H8 Accepted |
| Risk | <--- | EWoM | -.057 | .043 | -1.269 | .204 | H9 Rejected |
| Risk | <--- | AEgyW | -.233 | .046 | -4.915 | *** | H10 Accepted |
| OPI | <--- | AEgyW | .039 | .033 | 1.221 | .222 | H11 Rejected |

# 4. INTERNET USERS SEGMENTATION BASED ON ONLINE PURCHASE INTENTION

Different typologies were proposed to classify online shoppers based on motivations and concerns [65]. The study of Rohm and Swaminathan [66] suggested four types of online customers: *convenience shoppers*, *variety seekers*, *balanced buyers*, and *store-oriented shoppers*. While the convenience shoppers are motivated by online shopping convenience, the variety seekers and balanced buyers are interested in seeking a variety of products. Unlike the variety seekers, the balanced buyers plan their shopping. Shoppers in the store-oriented shopper prefer traditional shopping. On the other hand, Barnes et al. [17] classification resulted in three segments, namely *risk-averse skeptics*, *open-minded online shoppers,* and *reserved information-seekers*.

## 4.1 A Two-Step Cluster Analysis for Egyptian Internet Users.

Following previous research, this research provides a segmentation of Egyptian Internet users based on online purchase intention using the two-step cluster technique. Cluster analysis is a multivariate statistical technique for grouping respondents into multiple groups such that each case in a cluster is like others in the same group and dissimilar to other groups [57]. One of the main advantages of the two-step cluster technique is that it can identify the optimal number of clusters given the input variables automatically. Three groups resulted from cluster analysis with a Silhouette measure value equal to 0.7. One of the main advantages of the two-step cluster technique is its ability to identify the optimal number of clusters given the input variables. Three groups resulted from cluster analysis with a Silhouette measure value equal to 0.7. The value of the Silhouette measure ranges from -1 to 1 and is used as an indicator of the quality of separation. The solution is considered to be satisfactory if the silhouette measure is higher than 0.5. In our data, the Silhouette measure is equal to 0.7 showed good separation between clusters. The smallest group included 113 respondents and the largest one included 194

respondents. So, the largest-to-smallest cluster ratio is equal to 1.72. Lovric [67] recommended that this ratio be less than three, implying that no group is more than three times as large as the others.

To profile the clusters, cross-tabulations between clusters membership and demographic variables and Internet usage patterns was computed; the results presented in Table 4 indicated statistically significant differences between the clusters membership and gender (Chi-Square = 15.526 df= 2 $p < 0.001$), age (Chi-Square = 11.992 df = 4 $p = 0.017$), when they started using the Internet (Chi-Square = 16.379 df = 4 $p = 0.003$), and if they previously shopped online (Chi-Square = 76.736 df =2 $p< 0.001$). There was no significant difference between members of different clusters and their daily internet usage.

Regarding gender, cluster one had the highest percentage of male participants (38.4%), while cluster three had the lowest (18.6%). Cluster one differs significantly from the other two clusters. Concerning since when they started using the Internet, there is a significant difference for respondents who started using it for less than three years cluster one differs significantly from the other two clusters. Likewise, there is a significant difference between cluster one and the other two clusters for respondents who used the Internet for more than six years. For the age groups, cluster three differs significantly from the other two clusters for respondents aged from 20-30. While cluster one differs from the other two clusters for respondents aged more than 30. In terms of actual online shopping, cluster one has the highest percentage of online shoppers (89%). The means values of different factors for each cluster are presented in Table 5 and graphically in Figure 3.

**Table 4.** The three-clusters profile based on demographic variables and Internet usage pattern

| | Cluster 1 **Online Shopper Lovers** | Cluster 2 **Potential Online Shoppers** | Cluster 3 **Online Shopper Avoiders** |
|---|---|---|---|
| Size | 172 (35.9%) | 194(40.5%) | 113 (23.6%) |
| Gender | Chi-Square = 15.526 | df= 2 | p <0.001 |
| Male | 66 (38.4%) | 47 (24.2%) | 21 (18.6%) |
| Female | 106 (61.6%) | 147 (75.8%) | 92 (81.4%) |
| Since when you started using the Internet? | Chi-Square = 16.379 | df = 4 | P= 0.003 |
| Less than 3 years | 26 (15.1%) | 53 (27%) | 32 (28.3%) |
| From 3 to 6 years | 66 (38.4%) | 73 (37.6%) | 51 (45.1%) |
| More than 6 years | 80 (46.5%) | 68 (35.1%) | 30 (26.5%) |
| Age | Chi-Square = 11.992 | df = 4 | P = 0.017 |
| Less than 20 | 49(28.5%) | 71(36.6%) | 31(27.4%) |
| 20-30 | 77 (44.8%) | 88(45.4%) | 66(58.4%) |
| More than 30 | 46(26.7%) | 35(18.0%) | 16(14.2%) |
| Did You Shop online? | Chi-Square = 76.736 | df =2 | P < 0.001 |
| Yes | 153(89.0%) | 131(67.5%) | 45(39.8%) |
| No | 19 (11%) | 63(32.5%) | 68 (60.2%) |

**Table 5.** Mean comparison between three clusters

| Variables | Cluster one ***Online Shopper lovers*** | Cluster two ***Potential Online Shoppers*** | Cluster three ***Online Shopper Avoiders*** |
|---|---|---|---|
| Online Purchase Intention (OPI) | 1.01 | -0.14 | -1.30 |
| The Perceived Risk (Risk) | -0.22 | -0.03 | 0.38 |
| The Perceived Enjoyment (Enj) | 0.68 | -0.12 | -0.83 |
| Information Usefulness (InfoU) | 0.53 | 0.01 | -0.81 |
| The Perceived Ease of Use (EoU) | 0.42 | 0.03 | -0.68 |
| Electronic Word of Mouth (EWoM) | 0.53 | -0.01 | -0.80 |
| Online Advertisement Value (OA) | 0.12 | 0.03 | -0.24 |
| Attitude toward Egyptian Websites (AEgyW) | 0.05 | 0.12 | -0.29 |

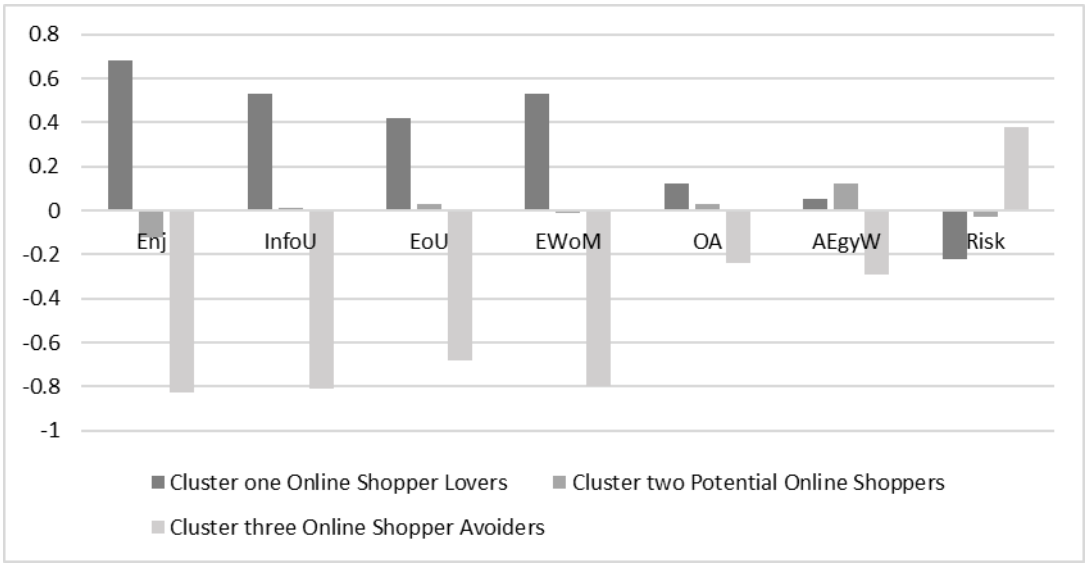


**Figure 3**. The means values for the different factors among the three clusters

## 4.2 Clusters Validity

Furthermore, to evaluate the cluster validity, a statistical comparison using different the other factors than online purchase intention is performed. In order to determine whether the cluster centers are significantly different across the seven factors MANOVA testing was conducted. The differences in all variables between the three clusters was significant (Wilks' $\lambda = 0.461$, $F(14, 940) = 31.789$, $p < 0.0001$, partial $\eta 2 = 0.363$). The significance of the F-values demonstrates that all related characteristic variables separate between the three groups with a significance level $p < .025$, since an alpha correction was used to account for MANOVA. Cluster membership has a statistically significant effect on perceived enjoyment ($F(2, 476) = 144.431$; $p < .001$; partial $\eta^2 = 0.378$), information usefulness ($F(2, 476) = 97.997$; $p < 001$; partial $\eta^2 = 0.292$), Electronic word of mouth ($F(2, 476) = 80.864$; $p < .001$; partial $\eta^2 = 0.254$), ease of use ($F(2, 476) = 52.807$; $p < .001$; partial $\eta^2 = 0.182$). Results of the MANOVA are presented in Table 6.

**Table 6:** MANOVA Results

| The Factors | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared ($\eta^2$) |
|---|---|---|---|---|---|---|
| The Perceived Risk | 24.985 | 2 | 12.493 | 14.893 | <0.001 | 0.059 |
| The Perceived Enjoyment | 158.271 | 2 | 79.136 | 144.431 | <0.001 | 0.378 |
| Online Advertisement Value | 9.252 | 2 | 4.626 | 5.096 | 0.006 | 0.021 |
| Information Usefulness | 122.448 | 2 | 61.224 | 97.997 | <0.001 | 0.292 |
| Ease of Use | 81.953 | 2 | 40.977 | 52.807 | <0.001 | 0.182 |
| Electronic Word of Mouth | 120.964 | 2 | 60.482 | 80.864 | <0.001 | 0.254 |
| Attitude toward Egyptian Websites | 12.471 | 2 | 6.235 | 7.406 | 0.001 | 0.030 |

Then, using the saved cluster membership as the dependent variable and the online purchase intention as the independent variable was performed to determine the accuracy of the three-cluster solution. One statistically significant canonical discriminant function was extracted, explaining the majority of variance in the dependent variable. Wilk's lambda tests of equality of group mean show that the groups are statistically significantly different ($p < 0.001$). The canonical correlations between the groups (function 1) are high and significant *(*$p < 0.001$), indicative of a significant relationship between the functions and cluster membership [57]. The classification matrix showed that 98.1% of the original grouped cases were correctly classified, with cluster one and cluster two achieving the highest percentage of correct classification (100%) and cluster three the lowest (92%). The results confirm the external validity of the three-cluster solution.

## 4.3 The Clusters Profile

*Cluster one* contains 172 Internet users representing 35.9% of the total sample. The respondents in this cluster show the lowest perceived risk. Further, they showed the highest perceived enjoyment, information usefulness, perceived ease of use, and electronic word of mouth. This group showed a strong attraction to online shopping. Within gender, 49.3% of the male respondent are in this class. Regarding actual online shopping, this cluster has the highest percentage of online shoppers (89%). An appropriate label for this group is "Online Shopper Lovers".

*Cluster two* contains 194 Internet users and therefore represents the highest number of internet users (40.9%). An analysis of the averages for the variables respondents in this group have values lowest that online shopping lovers and highest that online shopper avoider, so this group is labeled "Potential Online Shoppers". These people were generally willing to purchase over the Internet. Their status can be changed to Internet shoppers by reducing their concerns about their online transactions, solving difficulties they face in performing the transactions, and increasing their perceived enjoyment. Within this cluster, 67.5 % have already shopped online.

*Cluster three*, the smallest group, contains 113 (23.6%) of the respondents. Concerning the clustering variable, respondents of this group had the lowest online purchase intention and the most moderate for perceived enjoyment, online advertisement value, and electronic word of mouth. Also, they have the highest perceived risk. In terms of gender, this class is dominated by females, 92 (81.4%). Near two-thirds of respondents of this cluster 68 (60.2%) have never purchased over the Internet. Consequently, this cluster was named *Online Shopper Avoiders*.

## 5. DISCUSSION OF THE MAIN RESULTS

Based on the collected data, this research confirmed that perceived enjoyment, information usefulness, ease of use, and electronic word of mouth played an important role in shaping the intention of consumers to shop online. The perceived enjoyment had the higher impact ($\beta = 0.479$, S.E. = 0.036, $P < 0.001$) followed by electronic word of mouth ($\beta = 0.285$, S.E. = 0.033, $P < 0.001$). Results reveal that the most important factor impacting the intention to shop online is perceived enjoyment. So, website designers should introduce features to increase the perceived enjoyment of users to promote e-commerce. Egyptian web designers provide tools and services that make the Internet users' journey through websites enjoyable. Increasing enjoyment of the Egyptian surfer leads them to purchase online. Also, they should ensure that the website is easy to navigate. Besides, companies should recognize the power of information delivered to users and should not ignore the power of electronic word of mouth. So, they can provide consumers with a platform to express their experiences and review products. They may also host social activities that facilitate interactions between members. Also, provide attention to customer comments and complaints.

Furthermore, there was a positive relationship between information usefulness and the value of online advertisement. For an ad to achieve high impact, it should include accurate information delivered amusingly. Marketers should keep in mind that informing customers about product or service details should be done through manners that increase the entertainment of the Internet surfers.

The perceived risk can hinder the growth of e-commerce, so firms need to increase security measurements and inform their customers about these measurements. Also, to minimize financial risk impact, different payment plans should be offered to the customers, for instance, cash on delivery. Furthermore, to lessen the perceived risk about product quality and delivery, detailed information should be presented about products, and an easy and fast return and exchange policy should be provided. In addition, fruitful chats and discussions via the company's websites and immediate replies to consumer needs may decrease the perceived risk. Also, the results confirmed there is a significant relationship between the attitude toward Egyptian websites and the perceived risk ($\beta = -0.222$, S.E. = 0.046, $P < 0.001$). So, enhancing the attitude toward Egyptian websites reduces the perceived uncertainty and fosters e-commerce. Contrary to Flanagin et al. [54] results, findings showed that electronic word of mouth did not reduce the effect of perceived risk.

This study provides a segmentation analysis of the Internet users according to online purchase intention. The findings suggest that this segmentation is promising because it clearly outlined three heterogeneous groups: *Online shoppers' lovers*, *potential online shoppers,* and *online shoppers' avoiders*. *The online shopper* lovers group has the highest experience with the Internet. A large number of this group used the Internet for more than six years. While the majority of *online shopper avoiders* group used the Internet for less than six years. So online shopping will evolve as people gain more experience with the Internet. The perceived risk had the minimum level among online shopper lovers, so earning familiarity with the Internet minimizes the perceived threat.

From the managerial perspective, reaching each of the aforementioned online shoppers' segments requires different strategies. For *online shopper lovers*, managers need to concentrate on how to gain their loyalty and increase their satisfaction. Loyalty coupons and programs may improve their experience and enjoyment. They are the best group to benefit from recommended systems. To reach *potential online shoppers*, managers could enhance their shopping experience and increase their amusement and perceived usefulness. Companies could provide quick delivery, flexible return policies, and discount coupons. Also, Web designers should provide them with enriched and trustworthy information about their preferred brands. On the other hand, for online shopper avoiders, companies need to create awareness about the benefits of online shopping and increase their engagement. To reach the avoiders more efforts are needed to influence them through communication via different platforms. On the other hand, for *online shoppers' avoider*, companies need to create awareness about the benefits of online shopping and increase their engagement. Posting messages about the advantages of online shopping via social network sites can influence the online shopping avoider. Moreover, making marketing campaigns about online shopping via traditional media channels, and sharing videos on how to do online transactions to increase online shopping acceptance among this group.

## 6. LIMITATION AND FUTURE RESEARCH

Although this paper has shed some light on electronic word of mouth and the value of online advertisement and their relationship to the online purchase intention, it has some limitations. One of the limitations of this research is the high percentage of females in the sample; this could be explained by the higher response rate of females in online surveys online. Smith [68] revealed the difference in response rates in online surveys to the discrepancies in the behavior of females and males in cyberspace and how females and males feel social exchange. Future studies may include the moderating effects of personality traits or experiences with online shopping. Also, the proposed model did not include any control variable; future work can examine the role of age, gender, and income as control variables.

The results confirmed the positive relationship between electronic word of mouth, the value of online advertisement and information usefulness; the mediating role of information usefulness is also suggested for future work. To increase the efficiency of

online ads, there is a need to examine factors that increase their credibility and reduce their avoids.

Companies should be aware of the power of electronic word of mouth and the benefits of studying consumers' online activities; companies via advanced analytical applications can base their online advertising on the behavior of their customers. Hence further research should examine the relationship between online behavioral advertising and the impact of online advertising.

The results of this study confirmed that the attitude toward Egyptian websites decreases the perceived risk. A future study could analyze how to promote the attitude toward Egyptian websites. The results confirmed the positive relationship between electronic word of mouth and the value of online advertisement and information usefulness; future work could be examining the mediating role of information usefulness. Although the results of this paper showed that electronic word of mouth did not reduce the perceived risk, it showed that online shopping lovers had the lowest levels of perceived risk. So, the model could be extended by a construct referring to the online shopping experience; and examining its relationship to risk. And last and not least, the study was conducted with Egyptian Internet users only. It would be interesting to implement it in other Arab countries and compare the findings.

## 7. CONCLUSION

With the advancement of the Internet, consumers browse the web for information that assists them in making purchase decisions. Similarly, companies depend on the Internet to reach and communicate with their customers. To survive in the online ecosystem, companies need to maintain websites that present accurate and comprehensive information about products and services. Displaying product descriptions on the web should not be given only via textual format, but additionally, images and videos should be combined to attract and amuse the surfer. Electronic word of mouth has become a credible source of information for online shopping. Marketers should pay attention to consumers' reviews and ratings since it is a tool that influences competitiveness and long-term success. The online market in Egypt is evolving rapidly. Therefore, companies should offer users a specific virtual online environment to publish their comments, reviews, and suggestions.

The results of this study could assist advertisers in planning and designing their online advertisements. To increase the online advertisement's perceived value, designers need to plan to increase the perceived enjoyment. The findings showed that information usefulness is one of the main factors influencing perceived enjoyment. Consequently, increasing the accuracy and detailed information will increase the perceived enjoyment and the intention to shop online.

To promote B2C e-commerce, it is essential to understand the variations among different groups of online consumers; notwithstanding, perceived risk is considered the principal obstacle hindering the growth of electronic commerce in Egypt. Even online

shoppers' lovers, consumers who love and enjoy shopping online, reported perceived risks concerning product quality and financial transactions. Findings proved that in all three segments, the perceived risk is a barrier to online shopping. Enhancing the security features of online stores can increase the online shopping rate. Furthermore, reliable, and transparent policies regarding product return and exchange can promote online shopping and reduce the perceived risk.

## 8. REFERENCES

[1] R. A. King, P. Racherla and V. D. Bush, "What we know and don't know about online word-of-mouth: A review and synthesis of the literature," *Journal of Interactive Marketing*, vol. 28, no. 3, p. 167–183., 2014

[2] D. Chaffey, Digital business & E-commerce management, (6th ed.). Harlow: Pearson., 2015

[3] S. Rodgers and E. Thorson, Digital advertising: Theory and research, New York, NY: Routhledge, 2017

[4] P. Kolter and G. Armstrong, Principles of Marketing (17th Edition), 2014.

[5] Y. Hwang and J. Jeong, "Electronic commerce and online consumer behavior research: A literature review," *Information Development*, vol. 32, no. 3, pp. 377-388, 2016

[6] Ajzen, "The theory of planned behavior," *Organizational Behavior and Human Decision Processes*, vol. 50, no. 2, pp. 179-211, 1991

[7] P. Lai, "The literature review of technology adoption models and theories for the novelty technology," *Journal of Information Systems and Technology Management*, vol. 14, no. 1, pp. 21-38, 2017

[8] E. Akar and V. Nasir, "A review of literature on consumers' online purchase intentions," *Journal of customer Behavior*, vol. 14, no. 3, pp. 215-233, 2015.

[9] R. Gopal and D. Jindoliya, "Consumer buying behavior towards online shopping: A literature review," *International Journal of Information Research and Review*, vol. 3, no. 7, pp. 3385-338, 2016

[10] L. C. Har and U. C. Eze, "Factors influence consumers' intentions to repurchase online in Malaysia," *International Journal of Electronic Commerce Studies*, vol. 2, no. 2, pp. 157-164, 2011

[11] H. Lin, "Predicting consumer intentions to shop online: An empirical test of competing theories," *Electronic Commerce Research and Applications*, vol. 6, pp. 433-442, 2007

[12] V. K. Wells, S. W. Chang, J. M. Oliveira-Castro and J. Pallister, "Market segmentation in behavioral perspective," J*ournal of organizational behavior management*, vol. 30, no. 2, pp. 176-198, 2010

[13] M. Wedel and W. Kamakura, Market Segmentation: Conceptual and Methodological Foundations, Springer Science & Business Media., 2012.

[14] M. Aljukhadar and S. Senecak, "Segmenting the online consumer market," *Marketing Intelligence and Planning*, vol. 29, no. 4, p. 421–435, 2011

[15] "Egypt advances 11 places in UNCTAD 2019 business-to-consumer e-commerce

index," Amwal El Ghad, 29 12 2019. [Online]. Available: https://en.amwalalghad.com/egypt-advances-11-places-in-unctad-2019-business-to-consumer-e-commerce-index/. [Accessed 10 11 2020]

[16] J. Ganesh, K. Reynolds, L. M. and P. N., "Online shopper motivations, and e-store attributes: an examination of online patronage behavior and shopper typologies," *Journal of Retailing*, vol. 86, no. 1, p. 106–115, 2010.

[17] S. Barnes, H. Bayer, M. Neumann and F. Huber, "Segmenting cyberspace: a customer typology for the Internet," *European Journal of Marketing*, vol. 41, p. 71−93, 2007.

[18] R. Bagozzi, "Attitudes, intentions, and behavior: A test of some key hypotheses," *Journal of Personality and Social Psychology*, vol. 41, pp. 607-627, 1981

[19] F. Davis, "Perceived usefulness, perceived ease of use and user acceptance of information technology," *Management Information Systems*, vol. 13, no. 3, pp. 319-340, 1989.

[20] Q. Ma and L. Liu, "The technology acceptance model: a meta-analysis of empirical findings," *Journal of Organizational and End User Computing*, vol. 16, no. 1, pp. 59-72, 2004

[21] W. King and J. He, "A Meta-analysis of the technology acceptance model," *Information and Management*, vol. 43, no. 6, pp. 740-755, 2006

[22] F. Davis, "User acceptance of information technology: system characteristics, user perceptions and behavioral impacts," *International Journal of Man-Machine Studies* , vol. 38, no. 3, pp. 475-487, 1993.

[23] T. Yu and G. Wu, "Determinants of internet shopping behavior: an application of reasoned behavior theory," *International Journal of Management*, vol. 24, no. 4, pp. 744-762, 2007

[24] Y. Li and J. Huang, "Applying theory of perceived risk and technology acceptance model in the online shopping channel," *World Academy of Science Engineering and Technology,* vol. 53, pp. 919-925, 2009.

[25] J. W. Moon and Y. G. Kim, "Extended the TAM for a world-wide-web context," *Information and Management*, vol. 38, no. 4, pp. 217-230, 2001.

[26] I. M. Klopping and E. I. McKinney, "Extending the technology acceptance model and the task-technology fit model to consumer e-commerce," *Information Technology, Learning, and Performance Journal*, vol. 22, no. 1, pp. 35-48, 2004

[27] S. H. Kim and F. Byramjee, "Effects of risks on online consumers' purchasing behavior: Are they risk-averse or risk-taking?," *Journal of Applied Business Research*, vol. 30, no. 1, pp. 161-172, 2014.

[28] I. Erkan and C. Evans, "Social media or shopping websites? The influence of eWOM on consumers' online purchase intentions," *Journal of Marketing Communications*, p. 1–17, 2016.

[29] T. Tchai, "Online advertising development and their economic effectiveness," *Australian Journal of Business and Management Research*, vol. 1, pp. 121-133, 2011.

[30] X. Drèze and F. X. Hussherr, "Internet advertising: Is anybody watching?," *Journal of Interactive Marketing*, vol. 17, no. 4, pp. 8-23, 2003.

[31] N. Suki and N. Suki, "Online buying innovativeness: Effects of perceived value, perceived risk and perceived enjoymnet," *International Journal of Business and Society*, vol. 8, no. 2, pp. 81-93, 2007.

[32] Y. Lim, A. Osman, S. Salahuddin, A. Romole and S. Abdullah, "Factors Influencing Online Shopping Behavior: The Mediating Role of Purchase Intention," *Procedia Economics and Finance*, vol. 35, pp. 401-410, 2016.

[33] A. Kumar and K. Kumar, "Leveraging utilitarian perspective of online shopping to motivate online shoppers," *International Journal of Retail & Distribution Management*, vol. 46, no. 3, pp. 247-263, 2018.

[34] L. Peng, O. Liao, X. Wang and X. He, "Factors affecting female user information adoption: an empirical investigation on fashion shopping guide websites," *Electronic Commerce Research*, vol. 16, no. 2, pp. 145-169, 2016

[35] C. Harn, G. Sondoh Jr and H. Rizal, "Determinants of online group buying behaviour: The moderating role of informational social influence," *Journal Pengurusan*, vol. 41, pp. 133-134, 2014.

[36] A. O'Cass and T. Fenech, "Web retailing adoption: exploring the nature of internet users web retailing behaviour," *Journal of Retailing and Consumer Services*, vol. 10, no. 2, p. 81–94., 2003.

[37] U. Tadon, R. Kiran and A. Sah, "The influence of website functionality, drivers and perceived risk on customer satisfaction in online shopping: an emerging economy case," *Information System E-Business Management*, p. 57–91, 2018.

[38] R. I. ElSeidi, "Understanding Egyptian consumers' intentions in online shopping," I*nternational Journal of Online Marketing*, vol. 8, no. 3, pp. 1-18, 2018

[39] M. Aref and A. Okasha, "Evaluating the online shopping behavior among Egyptian college-educated community," *Review of Economics and Political Science*., vol. 5, no. 1, pp. 21-37, 2020.

[40] H. Lu, C. Hsu and H. Hsu, "An empirical study of the effect of perceived risk upon intention to use online applications," *Information Management & Computer Security* , vol. 13, no. 2, pp. 106-120, 2005

[41] K. Lee and S. Tan, " E-retailing versus physical retailing: a theoretical model and empirical test of consumer choice," *Journal of Business Research*, vol. 56, no. 11, pp. 877-885, 2003.

[42] A. Pelaez , C. Chen and Y. Chen, "Effects of perceived risk on intention to purchase: A meta-analysis," *Journal of Computer Information Systems*, vol. 59, pp. 73-84, 2019

[43] Y. Liebermann and S. Stashevsky, "Perceived risks as barriers to internet and e-commerce usage," *Qualitative Market Research: An International Journal*, vol. 5, no. 4, pp. 291-300, 2002.

[44] B. Dai , S. Forsythe and W. Known, "The impact of online shopping experience on risk perceptions and online purchase intentions: does product category matter?," *Journal of Electronic Commerce Research*, vol. 15, no. 1, pp. 13-24, 2014.

[45] L. Zhang, W. Tan, Y. Xu and G. Tan, "Dimensions of consumers' perceived risk

and their influences on online consumers' purchasing behaviour," *Communications in Information Science and Management Engineering*, vol. 2, no. 7, pp. 8-14, 2012.

[46] J. Kim , W. Kim and S. Park, "Consumer perceptions on web advertisements and motivation factors to purchase in the online shopping," *Computers in Human Behavior*, vol. 26, no. 5, p. 1208–1222., 2010

[47] A. Schlosser, S. Shavitt and A. Kanfer, "Survey of Internet Users' Attitude toward Internet Advertising," *Journal of Interactive Marketing*, vol. 13, no. 3, pp. 34-54, 1999.

[48] M. Tsang, M., S. Ho and T. Liang, "Consumer attitude toward mobile advertising: an empirical study.," *International Journal of Electronic Commerce*, vol. 8, no. 3, pp. 65- 78, 2004.

[49] J. Lee and I. Hong, "Consumer's electronic word-of-mouth adoption: The trust transfer perspective,," *International Journal of Electronic Commerce*, vol. 23, no. 4, pp. 595-627, 2019.

[50] J. Brown, A. J. Broderick and N. Lee, "Word of Mouth Communication within Online Communities: Conceptualizing the Online Social Network.”," *Journal of Interactive Marketing* , vol. 21, no. 3, pp. 2-20, 2007.

[51] F. Zhu and X. Zhang, "Impact of online consumer reviews on sales: the moderating role of product and consumer characteristics," *Journal of Marketing*, vol. 74, no. 2, pp. 133-148, 2010.

[52] E. Ismagilova, Y. Dwivedi , E. Slade and M. Williams, Electronic word-of-mouth in the marketing context: A state of the art analysis and future directions, Springer, 2017.

[53] D. Park and J. Lee, "eWOM overload and its effect on consumer behavioral intention depending on consumer involvement," *Electronic Commerce Research and Applications* , vol. 4, p. 386–398, 2008.

[54] A. Flanagin, M. Metzger, R. Pure, A. Markov and E. Hartsell, "Mitigating risk in ecommerce transactions: perceptions of information credibility and the role of user-generated ratings in product quality and purchase intention,," *Electronic Commerce Research*, vol. 14, pp. 1-23, 2014.

[55] R. Ladhari and M. Michaud, "eWOM effects on hotel booking intentions, attitudes, trust,and website perceptions," *International Journal of Hospitality Management*, vol. 46, pp. 36-45, 2015.

[56] M. Saunders and P. Lewis, Doing research in business and management: an essential guide to planning your project, England: Pearson Education., 2012.

[57] J. Hair , W. Black, B. Babin and R. Anderson, Multivariate data analysis: A global perspective (7th ed.), Pearson Education International, 2010

[58] R. Kline, Principles and Practice of Structural Equation Modeling, 4th ed., New York, NY.: The Guilford Press, 2016

[59] J. C. Westland, "Structural equation models: from paths to networks," in Review of methods and applications of SEM in information systems research., New York:, Springer, 2015.

[60] T. Brown, Confirmatory factor analysis for applied research, New York, NY.: The

Guilford Press, 2006.

[61] B. Byrne, Structural equation modeling with AMOS: Basic concepts, applications, and Programming (3rd Ed.), New York, USA.: Taylor and Francis Group, LLC, 2006.

[62] P. Podsakoff , S. MacKenzie , J. Lee and N. Podsakoff, "Common method biases in behavioral research: a critical review of the literature and recommended remedies," *Journal of Applied Psychology*, vol. 88, no. 5, p. 879–903, 2003.

[63] R. El-Seidi and D. El-Baz, "Electronic word of mouth effects on consumers' brand attitudes, brand image and purchase intention: An empirical study in Egypt," *The Business and Management Review*, vol. 7, no. 5, pp. 268-276, 2016.

[64] J. Matute , Y. Polo-Redondo and A. Utrillas, "The influence of EWOM characteristics on online repurchase intention: Mediating roles of trust and perceived usefulness," *Online Information Review*, vol. 40, no. 7, pp. 1090-1110., 2016.

[65] F. Huseynov and Ö. Yıldırım, "Online consumer typologies and their shopping behaviors in B2C e-commerce platforms," *SAGE Open*, vol. 9, no. 2, 2019.

[66] A. Rohm and V. Swaminathan, "A typology of online shoppers based on shopping motivations," *Journal of Business Research*, vol. 57, no. 7, pp. 748-57, 2004.

[67] M. Lovric, "Discriminant Analysis," in International Encyclopedia of Statistical Science, Berlin Heidelberg, Springer-Verlag, 2011, p. 589–604.

[68] W. Smith, "Does gender influence online survey participation?: A record- linkage analysis of university faculty online survey response behavior," ERIC Document Reproduction Service No. ED 501717 , 2008.

## APPENDIX: Questionnaire Factors, Codes and Statements

| Factor | Code | Items |
|---|---|---|
| Information Usefulness (InfoU) [33]; [34]. | Info1 | Help me finding information through websites |
| | Info 2 | Make finding information about products/ services easy |
| | Info 3 | provides more product variations |
| | Info 4 | provides sufficient information about specific products/ services. |
| Website Ease of Use (EoU) [37] | | I think online shopping is easy because I believe that |
| | EoU1 | Easy navigation |
| | EoU2 | Easy ordering |
| | EoU3 | Easy tracking orders |
| Perceived Enjoyment (Enj) [39] | Enj1 | I enjoy online Shopping |
| | Enj2 | I enjoy surfing for products/services online |
| | Enj3 | I believe online shopping is interesting |
| | Enj4 | Online Shopping is fun and amusing |
| Product Risk (PR) [44] | | I think that online shopping is risky because |
| | PR1 | *of finding the quality of products/service is not as expected* |
| | PR2 | of not receiving the product in the specified time |
| | PR3 | of not being able to change or return the products |
| Financial Risk (FR) [44] | | I think that online shopping is risky because: |
| | FR1 | online transaction are not safe / I don't believe that advanced technology can provide the desired security for my transaction with the online store. |
| | FR2 | my money will get stolen whenever I transact through my online store |
| | FR3 | Banking Data (credit card number) could be easily stolen during an online purchase |
| Electronic Word of Mouth (EWoM) Adopted from [53], [64]. | EWoM1 | *Using Social network sites to benefit from other consumers online experience.* |
| | EWoM2 | I trust the opinions of other online consumers about different products on sites |
| | EWoM3 | Other consumers online reviews help me in taking decisions |
| | EWoM4 | Consumers reviews about a product influence my decision to shop online |
| Online Advertisement Value (OA) Adopted from [48]. | I believe that online ads: | |
| | OA1 | help me find new products and offers |
| | OA2 | help me find information about products |
| | OA3 | increase my pleasure/ enjoyment while surfing |
| | OA4 | help me take shopping decisions |
| Attitude towards Egyptian Websites (AEgyW) | AEgyW1 | I prefer to shop from sites in Arabic language |
| | AEgyW2 | I trust Egyptian site more than others |
| | AEgyW3 | All products that I want to buy online are in Egyptian site |
| Online Purchase Intention (OPI) [26] | OPI1 | I intend to shop shopping online |
| | OPI2 | I recommend online shopping to my friends |
| | OPI3 | I would seriously consider online shopping |