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**Muslim Najeeb Zaidan**
Ph.D. Management
Final Viva, Postgraduate
Center Limkokwing University
of Creative Technology from
Iraq, Stay in Malaysia

**Dr. Valliappan Raju**
Assoc. Prof., Limkokwing
University of Creative
Technology from Iraq, Stay in
Malaysia

# Factors affecting the online purchase intention among Iraqi using enhanced technology acceptance model

## Muslim Najeeb Zaidan and Dr. Valliappan Raju

**Abstract**
The weakness of online shopping in electronic commerce (e-commerce) is significantly tempered with concerns over perceived trust & perceived security in online purchasing. Lack of trust & security issues cause online users to avoid participating in online purchasing & instead, people search the Internet for non-shopping purposes more frequently. Activities more despite the increased awareness of trust & security issues, online purchase intentions have not been thoroughly investigated. This research provides a conceptual model to assess the impacts of perceived trust, perceived security, and attitude. In online purchase intention. A quantitative methodology has been used, & questionnaires were sent to students in seven public universities in Baghdad-Iraq. A total of 383 Iraqi students participated in this online survey. The findings show that Attitude, perceived trust & the perceived security level has a direct and significant impact on online purchasing intent. The most critical element in forecasting online purchase intention is the customers' attitude about online shopping. On the other hand, the website is perceived as safe and secure; online purchasing will increase. Moreover, perceived ease of use & perceived usefulness is two affect attitudes. Therefore, Attitude mediates the effect of perceived security & perceived trust on online purchase intention partially. This study concludes that online vendors and websites should pay particular attention to customers' attitudes towards online purchasing and their perception of trust and security to increase their intention to do online purchasing.

**Keywords:** Online purchase, enhanced technology, Iraq

## Introduction
Iraq is a Western Asian country bordered by Turkey to the north, Iran to the east, Kuwait to the southeast, Saudi Arabia to the south, Jordan to the southwest, and Syria to the west. Baghdad, located in the country's center, is its biggest city by far and its capital (statistics 2021). One of the difficulties in e-commerce, which has experienced rapid expansion, is using the Internet as a purchasing instrument. Nielsen (2014), a leading global information & measurement company, in 2020, East Asia accounted for 1.1 billion of the world's internet users, followed by Southern Asia with 816.9 million. The Middle East countries generally have young populations & can be considered a conducive environment for the growth of e-commerce [6]. As noted in the 2021 Internet World Statistics report, the large countries in the Middle East and North Africa (MENA) consist of (Algeria, Bahrain, Egypt, Iran, Iraq, Palestine, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Israel, Syria, Tunisia, United Arab Emirates, and Yemen),
have a high probability of becoming an e-commerce market for online purchasing. Online shopping in Iraq is progressively becoming more attractive with greater penetration of the Internet (International Data Corporation, 2021) & is accelerated with the growing use of smartphones & Mobile Internet, an increase in linked device ownership, and government efforts such as partial reimbursement of smartphone purchasing expenses for young individuals are setting the groundwork for a substantial increase in online commerce in Iraq.
According to a report by the (data portal, 2021), Internet use and penetration in Saudi Arabia, Iraq, and Egypt are growing faster than the world average. With 30 million online users, Iraq is third after Egypt and Saudi Arabia in most online users in MENA countries. However, Iraqi's Internet growth rate is considered the fastest among MENA countries after Saudi Arabia.

**Corresponding Author:**
**Muslim Najeeb Zaidan**
Ph.D. Management
Final Viva, Postgraduate
Center Limkokwing University
of Creative Technology from
Iraq, Stay in Malaysia

**Table 1:** Internet Users and Penetration in six MENA countries (Internet data portal 2021)

| Country | Population | Internet Users | Penetration |
|---|---|---|---|
| Saudi Arabia | 35.08 million | 33.58 million | 73% |
| Uae | 9.94 million | 9.84 million | 99% |
| Egypt | 103.3 million | 59.19 million | 57.3% |
| Kuwait | 4.30 million | 4.26 million | 99% |
| Iraq | 40.70 million | 30.52 million | 75% |
| Morocco | 37.13 million | 27.6 million | 74% |
| Total | 230 | 161 | |

The rate of development in Internet penetration has created possibilities and interests for Iraqis. As part of their marketing strategy, businesses should have an online presence plan. A report by the central statistical organization of Iraq (2019) shows that about 60% of individuals in Iraq use the Internet at least once a day. On the other hand, the median age for both female & male Iraqi's is around 24 to 25 years indicating that online purchasing can catch more rapidly. Besides, this report shows that Iraqi online users mostly use the Internet for posting information or instant messages (69.1%). However, 65.4% of online users the information on goods & services, but purchasing is not mentioned as the six first everyday activities among Iraqi online users. Despite the importance of trust & security in using the Internet, studies investigating both the perceived trust & perceived security from a customer's perspective are lacking. The interrelationship between Attitude, trust, security, ease of use & usefulness has not been thoroughly examined & understood by researchers. Based on [16] had evaluated perceived trust in isolation. However, previous studies have not addressed both perceived trust & perceived security in the online purchase environment. Several researchers had attempted to study perceived security in online purchasing context like studies from [3] & [13]. According to [22] studied perceived security from a qualitative method. Accordingly, adopting quantitative methods to assess perceived trust and perceived security will benefit the online purchasing setting. The majority of e-commerce research has been performed in developed nations such as the United States. It demonstrates the need for more excellent research into internet behavioral concerns in developing countries. [5]. Despite the massive potential for internet shopping in Iraq, adoption is still in its early stages [19, 7]. According to [2] nations in the early stages of online shopping operations must examine the cyber landscape, namely the security and trustworthiness of online shopping websites.

**Literature review**
Over 4.333 billion people use the Internet to access their needs through online channels & have created a digital society in the process (data portal, 2019). In 2019, 5.117 billion people worldwide use a mobile phone today, equating to roughly two-thirds of the world's total population; the number of individuals using a mobile phone grew by 124 million in the last year, equal to a 2.5 percent yearly rise. Internet users have increased by more than 8% in the last year, with more than 320 million individuals using the Internet for the first time since July 2018. Social media users have increased by about 8%, with more than a quarter of a billion people starting to use social platforms since this time last year (Digital 2019).
The fast rise of e-commerce also impacts firms that do not have an online presence [1-3]. The fast pace of technological advances, globalization, & the augmentation of online customers' demands threatens corporate leaders' capacity to satisfy human needs without using innovation to achieve long-term aims [3, 4]. Consumers use e-commerce to access information, knowledge, & expertise efficiently [5, 6, 8]. E-commerce is a solution to improve competitiveness & reduce poverty in developing countries [11, 12]. Researchers at Export.gov (2018) estimated a notable e-commerce growth in Iraq, reaching USD 7.92 billion in 2017. Despite this high figure, a fast-growing economy, and rapid Internet use, e-commerce growth is slow in Iraq. [16, 14]; identifying consumers' propensity to adopt online purchasing might help SME enterprise business owners improve their e-commerce platform business, perhaps increasing revenues. [1, 7]. Using online shopping may increase competition for online merchants, who must meet several critical success characteristics to entice customers to purchase online.
According to research, perceived trust in a website is a critical element influencing online purchase intentions. [7, 8]. Other studies by [16, 17, 18] focus on perceived security by online users as the primary critical success of online customers. Lack of online purchase or sales in Iraq continues to impact organizational profitability [11] negatively. E-commerce purchase growth in Iraq remains low with a value of $1.5 billion (17%) compared to the value growth for the East & North Africa (MENA), which is $9 billion [5, 9]. The fundamental business issue is that some Iraqi business owners lack e-commerce abilities to meet the expectations of an increasing number of online clients. The specific business issue is that sure small and medium-sized business owners in Iraq do not understand the relationship between perceived ease of use, perceived usefulness of e-commerce platforms, and perceived usefulness of e-commerce platforms & consumers' Attitude to adopt online shopping. As the number of online shopping websites grows, so does internet customers' awareness of trust and security. [4, 9] advocates that security is a concern, whereas [10] found that lack of trust is the primary factor for Iraqi online customers avoiding online purchases. Therefore, perceived trust & perceived security maybe are determinants that eff on the future growth of online shopping in Iraq [18]. In other words, people mostly avoid online purchasing because they cannot trust the online environment & they believe that security is not guaranteed while shopping online. A review of previous research reveals a scarcity of studies investigating both perceived trust and perceived security concurrently. To address this gap, that necessary to identify the influence of perceived trust & perceived security. The trust has been examined in studies by [14, 5]. Also, there are limited studies in identifying perceived security, such as [2].
Nonetheless, it is critical to research and investigate perceived trust and perceived security for online purchase intention. Thus, based on the views of online users, it is

necessary to assess the impacts of perceived trust and felt security on online purchases in Iraq. Finally, a conceptual model for online purchasing intents based on perceived trust and perceived security is presented & evaluated.

## Conceptual model & Research Hypotheses

Perceived trust, perceived security, Attitude, & perceived ease of use and usefulness affect online purchase intention in Iraq. Five models related to online purchase intentions are reviewed in proposing a conceptual model of this study. The following sections will present the hypotheses that are derived based on reviewed models. Regarding that, a better explanation, the hypothesis of this study is described in two sections. The first section relates to relationships between online purchase intention, Attitude, perceived trust, perceived security. In contrast, the second section is related to relationships between Attitude & perceived trust, perceived security, perceived usefulness & ease of use.

## Hypotheses for Online Purchase Intention

As part of this research, the online purchase intention is a dependent variable to explain intentions represent the instructions that the individual gives himself to behave in a certain way [10]. The threshold at which a customer is inclined to buy a product or service from a particular website defines online purchase intention. This study examined seven hypotheses. Online purchase intention as a dependent variable is affected by three independent variables: attitude, perceived trust, & perceived security. Also, Attitude is determined by perceived ease of use, perceived usefulness, perceived trust, & perceived security. The relationships among these variables are explained. A description of each hypothesis formation is presented in this section.

## Attitude

Attitude, once activated, will automatically guide behavior to online purchases. Concerning the question of positive or negative feelings of consumers about doing online purchasing [22], have proposed the attitude theory, which relates to Attitude as the primary explanation of intention toward the idea. It is considered in TAM [29] as an influential factor in behavioral intention. Thus, by informing an attitude about a particular object, a person will have the intention to behave in a particular manner concerning that object, & this intention is the prime determinant of the actual behavior. According to [12] support a strong positive relationship between Attitude towards online purchasing & the intention to purchase online. Attitude also is a critical variable in the study by [20] & as a factor that affects online purchase intention. This result is confirmed by other studies such as [19, 8, 2]. According to [11], understanding customer attitude toward online shopping helps marketing managers forecast online shopping traffic & evaluate the future growth of online commerce. It also indicates a positive effect of Attitude on online purchase intention. Correspondingly, this research proposes that attitudes toward online shopping are the determinant of online purchase intention. Therefore, it is hypothesized that.

**H1:** Attitude has a significant influence on Online Purchase intention Consumer attitudes are important in purchasing decisions. Consumers who shop online have higher attitude scores & this higher attitude score is directly related to online purchase.

## Perceived trust

Perceived trust is considered a factor that can increase the willingness to buy; people will make important buying decisions based on their trust in the product, salesperson, & company [6]. Trust is known as a prerequisite for successful commerce because consumers are hesitant to make purchases unless they trust the seller [5]. Consequently, consumer trust attracts more focus in an online environment than traditional trading businesses [5]. Trust in an online environment is essential because online shoppers & retailers cannot physically see each other during their interactions [13]. Perceived trust is one of the main concerns for online customers during online purchasing [10]. Lack of trust limits interactions between online customers & vendors. Trust in electronic commerce is a confidence level that shows how an online customer's intentions & actions are perfected during an interaction. In the study by [1], the intention to purchase online is directly influenced by the trust in the website.

Moreover, the initial trust of online vendors directly impacts first purchase intentions [1]. Therefore, perceived trust is identified as a strong determinant of online purchasing decisions [22]. Other studies consider trusting a direct factor affecting online purchase intentions [22, 20, 16]. Hence, it is hypothesized that:

**H2:** Perceived Trust has a significant influence on Online Purchase Intention.

According to the theory by [2], beliefs directly affect attitudes, & trust as a belief leads to Attitude toward behavior [7]. Also, [16, 17] confirm that trust is positively & significantly associated with online customer's attitudes toward online shopping. Several empirical studies have also demonstrated this positive relationship [12-14]. Following a similar line of argument, it is reasonable to state that

**H3:** Perceived trust has a significant influence on Attitude.

## Perceived security

Perceived security is different from technical security. It involves managerial, organizational & human dimensions to be more efficacious [2]. Therefore, understanding the perception of security by customers is an essential issue for successful e-commerce websites. Sometimes, an online vendor provides the best technical solutions that provide complete security, but it does not mean that an online vendor is perceived as secure. Other factors affect perceived security from a customer's view of point. Without customers' underlying perception about the website's security, the technical solutions may mean nothing [22, 24]. Therefore, perceived security is an essential factor in consumer safety, & even when consumers do not have enough information about how it works, they perceive security as a way of protecting their information during online shopping activity [22]. A strong relationship is noted between perceived security & online purchase intention in the model [23].

Moreover, research by [11] states that security is a factor that can encourage customers to conduct online shopping. In a related study on e-commerce by [21], perceived security adds to TAM to show how well it relates to actual use & attitude.

A significant influence of security on actual use is found in this study. The effects of perceived security on online purchase intention seen model by [20] & this are supported in the model by [23]. Therefore, it seems that perceived security is one of the necessary factors that must be considered in online purchase intentions. As such, it is proposed that:

**H4:** Perceived Security has a significant influence on Online Purchase Intention

On the other hand, a significant relationship between perceived security & Attitude is found in the study by [2]. The mediation role of Attitude can be explained by the fact that buyers & sellers do not cooperate face to face in online purchasing procedures & this increases security concerns [4]. A consumer who perceives an online vendor as secure will likely form a positive attitude toward the vendor [8]. Also, studies have mentioned security as one of the factors that affect online purchases [22, 14]. Similarly, [1, 3] mention that system assurance is an influential factor in perceived security. Once customers feel secure in their online purchase activity, collectively, they will enhance their level of trust in the site. Therefore, the following hypothesis is suggested:

**H5:** Perceived Security has a significant influence on Attitude.

**Perceived usefulness**
The TAM has extensively tested Internet acceptance, which records the usefulness of using the Internet for shopping online. Perceived usefulness is one of the variables of TAM [28-30] & is defined as the degree to which persons believe that using a specific system would increase their job performance Because perceived usefulness affects attitudes toward usability. The influence of perceived usefulness on Attitude is evaluated in related studies on online purchase intentions. According to Hubert [6], attitude toward online purchasing is significantly affected by usefulness. The line with the findings of [6] as their study suggests that consumers feel favorable attitudes toward using online ticketing reservations when they believe it provides good benefits. Ghazi *et al*. [15] argue that online shopping sites that provide functions that aid consumers in making better shopping decisions will be perceived as valuable, & the Attitude toward online purchasing is formed when a website is perceived as having usefulness. Other studies have also found a significant influence of usefulness on Attitude toward online purchasing, such as those by [5, 8, 11]. Therefore, the influence of perceived usefulness on Attitude will be evaluated in this study to confirm past research results. In the basic TAM theory, there are direct effects of perceived usefulness on online purchase intention, but since this study focuses on the role of trust & security, it reviews studies related to online purchase intention, which have eliminated this relationship such as by [29, 30]. The related hypothesis for perceived usefulness is:

**H6:** Perceived usefulness of an online shop positively influences the Attitude toward using online purchasing.

**Perceived ease of use**
Perceived ease of use is defined as "the degree to which a person feels that utilizing a specific system would be easy" [(Davis, 1989)]. This factor is taken from TAM to predict user acceptance of various Information Technology (IT) applications in the context of e-commerce. According to TAM [28], perceived ease of use strongly affects perceived usefulness. Many studies have empirically verified perceived ease of use as a predictor of perceived usefulness [30]. Gefen [28] discusses that consumers who perceive that online shopping is easy to use usually perceive it as applicable. This result is in line with the studies by [29], which suggest that online customers' more straightforward use of online shopping sites enhances their perception of the usefulness of online shopping. According to TAM [30], perceived ease of use significantly affects attitudes toward online purchasing. Gefen [28] note that a technology that is perceived to be easier to use than another is more likely to be accepted by users. In contrast, the more complex a technology is perceived to be, the slower will be its rate of adoption. Although the study by [20] does not validate the impact of perceived ease of use on Attitude, more recent work by [26] confirms that online airline ticket reservation websites which are clear & understandable & require less mental effort generate ease of use perceptions among consumers & provide satisfactory attitudinal attachment to them. Other research, such as [29, 30], has also found that perceived ease of use positively influenced consumer attitudes towards online shopping. Accordingly, the study proposes that:

**H7:** Perceived usefulness of an online shop positively influences the Attitude toward using online shopping.

**Proposed Conceptual Model**
A conceptual model is proposed for this study based on the defined hypotheses. It consists of six dependent & independent variables & seven related hypotheses. (Figure 1) depicts the proposed conceptual model with its hypotheses.
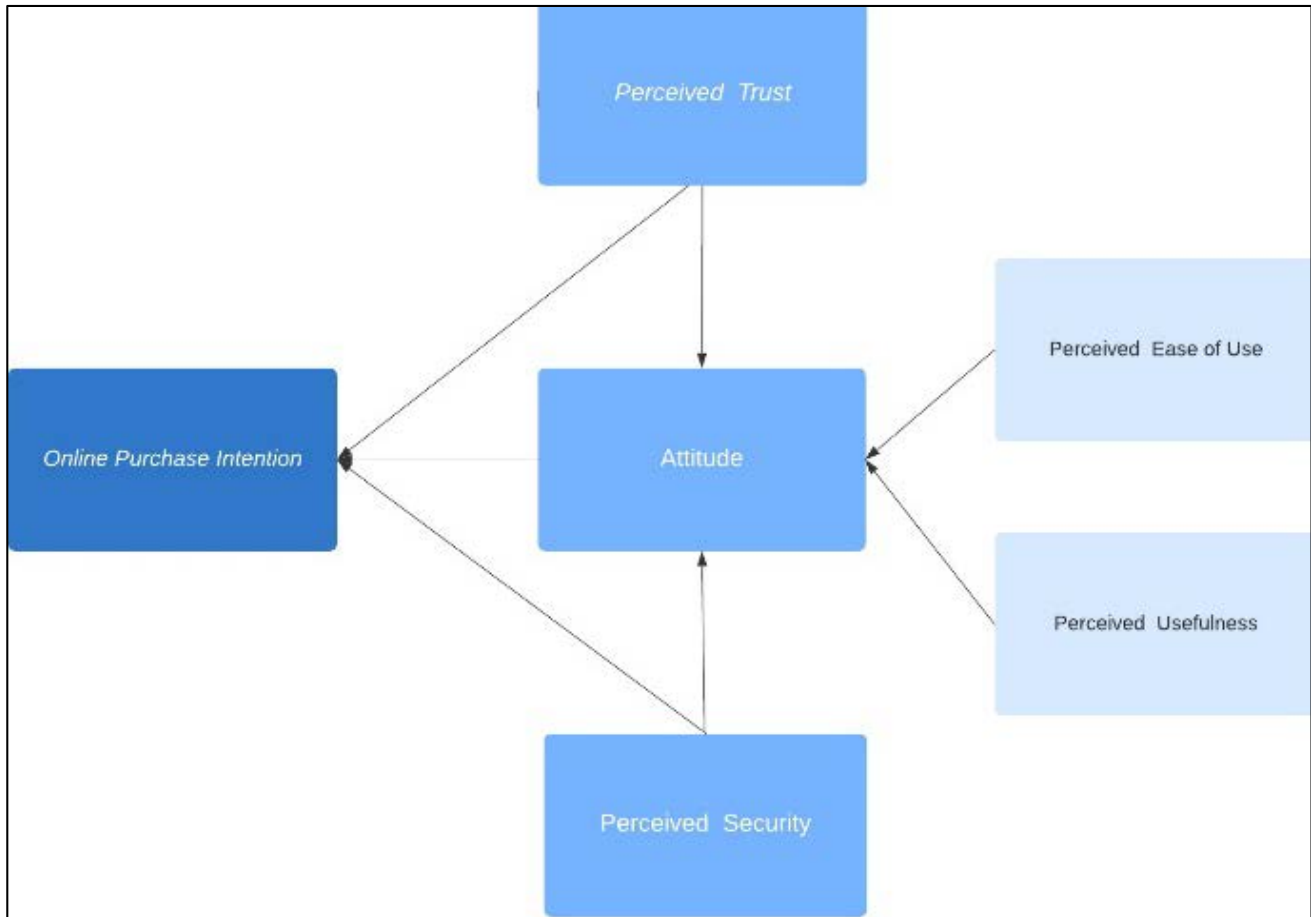
**Fig 1:** Proposed Conceptual Model with Hypotheses

## Methodology

This study is descriptive research as it relates to people's opinions [11]. After identifying a topic in this research, researchers gather data for hypothesis testing or answer the research questions [10]. Producing quantitative & reliable data usually can be generalized to a population, & it can be considered an essential advantage of using the quantitative approach for this research. Survey methods, experiments, laboratory, & numerical methods are different types of quantitative research. In surveys, the dependent & independent variables & the relationship between variables, the study's hypothesis, have to be identified. Will test These hypotheses in a selected sample of the population & the achieved results generalized to the whole population [10]. Hence, a survey instrument is designed to measure the research variables of this study that include online purchase intention, perceived security, perceived trust, Attitude, Perceived Ease of Use & Perceived Usefulness. A questionnaire was designed for the distributed to university students in Iraq to seek their responses on online purchasing.

## Measurement scale

The researcher will conduct a survey predicated on Immunology Liker Scales (strongly disagree=5, disagree=4, impartial =3, agree=2, strongly agree=1) that can be employed to assess the degree of effect of these factors identified in the study. As discussed, the tool for producing quantitative data can be just a survey. The questionnaire can be something to collect both primary & quantitative statistics. Questions are formed based on the study's objectives & after that, and questionnaires are spread together with the essential information. Information & data gained from questionnaires have been quantitative statistics previously mentioned for this use in the prior section. Inside this phase, based on information results & this proper data model for adopting an online purchase is suggested. After identifying perceived trust & perceived security in the online purchasing environment, a conceptual model is proposed for online purchase intention by considering identified variables. And test out the hypotheses, a questionnaire has been used to collect data. The questionnaire included items on students' views regarding online purchase intention, perceived trust & perceived security, ease of use, usefulness, & Attitude. A primary questionnaire from existing scales & related questionnaires was designed & its validity & reliability checked in terms of content validity, constructs validity & pilot study. Finally, I implemented a revised survey based on feedback received. The questionnaire layout consisted of two parts. Part A relates to demographic information. Part B is on variables that affect online purchase intention, including as a dependent variable (perceived trust, perceived security, Attitude, perceived ease of use & perceived usefulness) & independent variables (online purchase intention). Table 3.*1* shows the questionnaire structure with two parts. There are 19 items with a 5-point Likert-type response scale ranging from 1 (strongly disagree) to 5 (strongly agree) for non-demography items. The questionnaire was designed and written in the English language.

**Table 2:** Structure of Questionnaire

| Part | Factors | Code | No. of Items | List of Items | Source |
|------|---------|------|--------------|---------------|--------|
| B | Users' Profile | _ | | _ | |
| | Online Purchase Intention | OPI | 3 | OPI1 OPI2 OPI3 | [2, 4, 6] |
| | Perceived Security | PS | 4 | PS1 PS2 PS3 PS4 | [8, 19 21] |
| | Perceived Trust | PT | 3 | PT1 PT2 PT3 | [9, 11, 15] |
| | Attitude | AT | 3 | AT1 AT2 AT3 | [3, 10, 28] |
| | Perceived Ease of Use | PEU | 3 | PEU1 PEU2 PEU3 | [28, 29, 30] |
| | Usefulness | UFN | 3 | PU1 PU2 PU3 | [28, 29, 30] |
| | Total | | 19 | | |

## 4. Findings & analysis

Internal consistency is measured by composite reliability (CR) [10]. Composite reliability (CR) considers indicators with different loadings, whereas Cronbach's alpha provides severe underestimation of internal consistency reliability & assumed that all indicators are equally weighted [11]. Thus, this study will consider CR instead of CA. Furthermore, a researcher has followed the guideline suggested by [10] stated that internal consistency is considered satisfactory when the value is ≥.70, whereas value < 0.60 indicates la ack of reliability of measures. The table shows the CR of each construct study ranges from 0.914 to 0.952 & this is above the recommended threshold value of 0.7. Thus, the internal consistency reliability of the constructs is confirmed.

**Table 3:** Results of a Measurement model

| Model Construct | Measurement Items | Loading | CR | AVE |
|-----------------|-------------------|---------|-----|-----|
| Attitude | AT1 | 0.939 | 0.950 | 0.865 |
| | AT2 | 0.93 | | |
| | AT3 | 0.921 | | |
| Online Purchase Intention | OPI1 | 0.947 | 0.941 | 0.841 |
| | OPI2 | 0.893 | | |
| | OPI3 | 0.911 | | |
| Ease of Use | PEOU1 | 0.932 | 0.946 | 0.853 |
| | PEOU2 | 0.913 | | |
| | PEOU3 | 0.925 | | |
| Perceived security | PS1 | 0.941 | 0.952 | 0.833 |
| | PS2 | 0.944 | | |
| | PS3 | 0.931 | | |
| | PS4 | 0.83 | | |
| Perceived Trust | PT1 | 0.942 | 0.941 | 0.841 |
| | PT2 | 0.898 | | |
| | PT3 | 0.912 | | |
| Perceived Usefulness | PU1 | 0.939 | 0.914 | 0.78 |
| | PU2 | 0.773 | | |
| | PU3 | 0.929 | | |

In PLS structural model, evaluate the combined effect of exogenous variables on endogenous latent variables. Represent the amount of variance in the endogenous constructs explained by all exogenous constructs linked to it. Liébana [10] claimed that a significant emphasis in PLS analysis is on variance explained and establishing the significance of all path estimates. The $R^2$ value ranges from 0 to 1, with the higher levels indicating higher levels of predictive accuracy [10]. Similarly, [11, 10] stated that values should be high enough for the model to achieve a minimum level of explanatory power. In this study, the smart-PLS algorithm function is used to obtain the values. The results of the structural model with values & path coefficients were depicted in the figure below. Findings revealed that perceived usefulness, ease of use, perceived trust & perceived security could explain 29.6% of the variance in Attitude. Meanwhile, Perceived Trust & Perceived Security account for 49.7% of the variance in online purchase intention.

**Table 4:** R-Square

|  | R Square |
|---|---|
| Attitude | 0.296 |
| Online Purchase Intention | 0.497 |
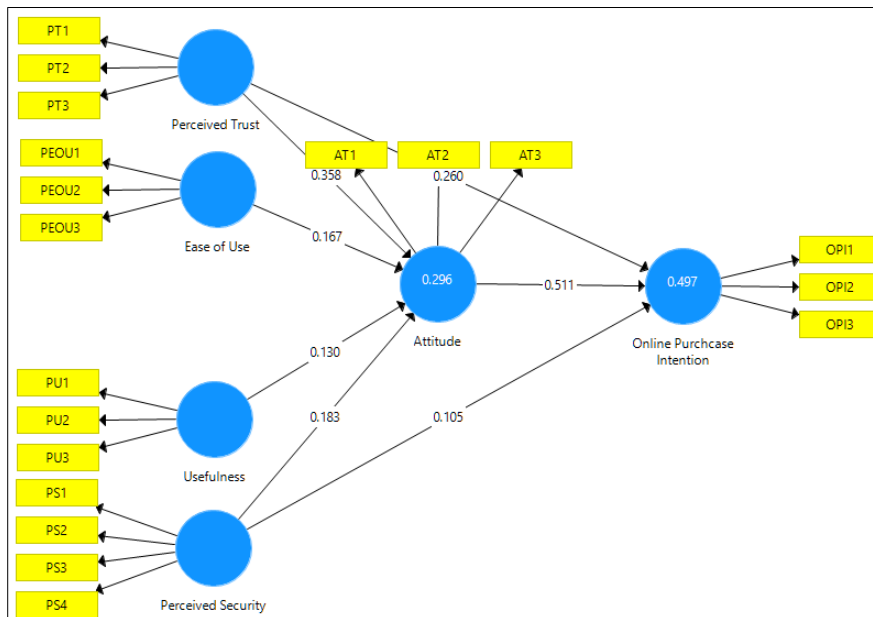


**Fig 2:** The PLS model showing R-Square & Path coefficients
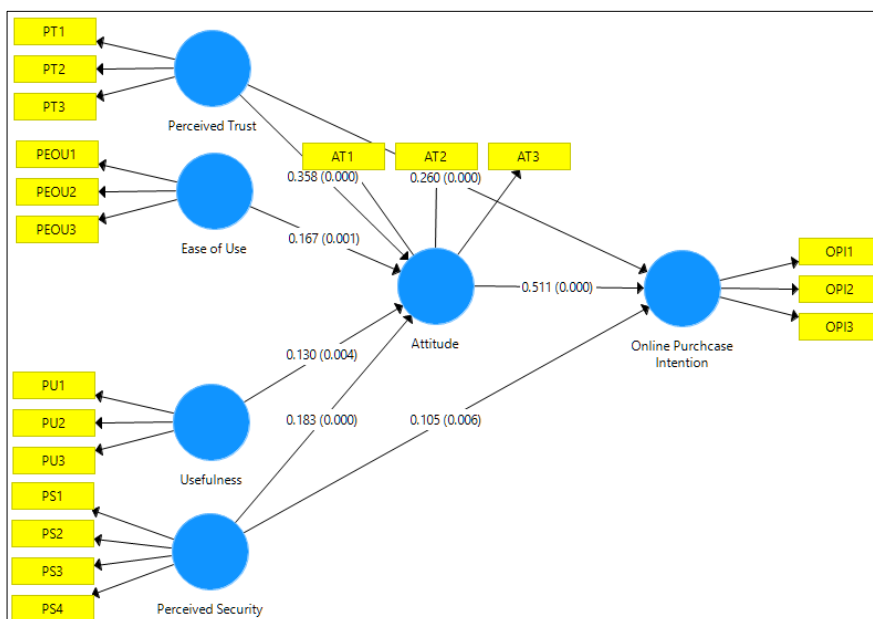


**Fig 3:** Model showing path coefficient with P-values

As mentioned in the methodology chapter, PLS is a non-parametric analysis & does not require the normality of data. Consequently, chances are there that the t-values will be inflated or deflated, which led to type one error. Thus, the bootstrapping procedure is suggested by [10]. In bootstrapping procedure, many subsamples (e.g., 5000) are taken from the original sample with replacement to determine standard bootstrap errors, which gives approximate t-values for the significance testing of the structural path [10]. Next, the researcher needs to examine the path coefficients, representing the hypothesized relationships that link the constructs. The path coefficient helps the researcher what the strength of the relationship between two latent variables is. Finally, the critical values for significance in the two-tailed test & one-tailed test are discussed as recommended by [11]. Thus, direct effects hypotheses are tabulated in the table below with bootstrapping (5000) as suggested by [10] while using Smart-PLS.

**Table 4:** Path Coefficient Assessment

| Relationship | Direct Effect (β) | Standard Error | T Statistics | P Values |
|---|---|---|---|---|
| H1: Attitude -> Online Purchase Intention | 0.511 | 0.051 | 9.966 | 0.000 |
| H2: Perceived Trust -> Online Purchase Intention | 0.26 | 0.056 | 4.645 | 0.000 |
| H3: Perceived Trust -> Attitude | 0.358 | 0.054 | 6.669 | 0.000 |
| H4: Perceived Security -> Online Purchase Intention | 0.105 | 0.038 | 2.75 | 0.006 |
| H5: Perceived Security -> Attitude | 0.183 | 0.044 | 4.125 | 0.000 |
| H6: Usefulness -> Attitude | 0.13 | 0.045 | 2.891 | 0.004 |
| H7: Ease of Use -> Attitude | 0.167 | 0.047 | 3.577 | 0.001 |

## 5. Discussion

After model development & model evaluation, it is concluded that Attitude, perceived trust & perceived security are three factors that affect online purchase intention directly. Also, Attitude mediates the effect of perceived security & perceived trust in online purchase intention. Therefore, the most influential factor in online purchase intention is Attitude. In the next step, Attitude, perceived trust & perceived security are evaluated. Perceived usefulness & perceived ease of use are two mediate of Attitude. Based on the proposed conceptual model of this study, there are six variables. Discussion of relationships variable, their implications & their similarity with a result of previous research is presented in this section. The purpose discussion is to interpret & describe the significant findings in light that was already known about the research problem being investigated & to explain any new understanding or insights that emerged as a result of the study of the problem. The discussion will always link to the introduction via the research questions or hypotheses user posed and the literature been reviewed, but it will not simply repeat or rearrange the first sections of the paper; it will clearly explain how the study advanced the reader's understanding of the research problem from where they left them at the end of the review of prior research. Theoretical & practical implications.

An essential contribution of this study is considering the perceived trust, perceived security, perceived ease of use, perceived usefulness, Attitude. According to this study, the complex observable factors give an associated concept model for online purchasing intention. The effect of these variables in a single online purchase intention model is evaluated in this study. The Iraqi government, notably the Iraqi Communications & Media Commission (CMC.iq) & Ministry of Communications of Iraq (MOC), may find some helpful information in this research to grow online purchasing &, consequently, increase usage of e-commerce. As perceived trust & perceived security are significant concerns of online customers, the related organizations & privacy policies could make a difference in recognizing what data should be made public towards safeguarding online shoppers' information. For example, having the Trust Mark can be made compulsory for all online shopping websites. Engaging in e-commerce can increase sales & reduce costs making a business more competitive. Sales are increased because the Internet facilitates globalization & allows a company access to a more significant number of targeted customers distributed throughout Iraq. E-commerce uses the latest technology such as telephone & Internet to facilitate buying & selling of products, communication with customers & other entrepreneurs to help each other. Secondly, the findings of this study validate previous findings on the positive relationship between all perceived trust & perceived security in an online purchase context.

Also, & reputation as perceived security has not yet been examined in the online purchasing environment with TAM Theory. This research tested these factors in the online purchasing environment for the first time while exploring the relationship between them & perceived security. The third contribution of this study is using the Questionnaire & Quantitative research approach to examine the relationships. Previous studies validated the instrument of this study. However, this study comprehensively tested the instrument for both perceived trust & perceived security towards TAM Theory & the Affecting on online purchase intention in Iraq. This study provides a validated model for Iraqi researchers who need to know more about the theoretical foundations of t-commerce being studied & their applications in the Iraqi context. Remarkably, this study can serve as a sample study for Iraqi researchers studying empirical methods in the online purchasing context. This research also has practical implications for online vendor managers & website designers, especially those in Iraq. By identifying the effects of perceived trust, perceived security, & Attitude on online purchase intention for Iraqi online users, online vendors & website designers may be able to assess the strengths & weaknesses of their websites & to develop appropriate strategies to improve their effectiveness. Besides, newly formed online companies may consider understanding the attitudes of online customers toward online purchasing & creating secure & trustworthy websites. Much of the research related to e-commerce has been conducted in developed countries like the United States. It has a high level of individualism, & it seems that they cannot be generalized to other countries with different cultures, especially collectivist cultures (Alam & Yasin, 2010). The result of customer behavior on their perception of trust & security may be different in collectivist cultures.

## 6. Conclusion

Any appraisal of the results of the evaluated conceptual model in this study could assist the Iraqi Communications & Media Commission (CMC.iq) & Ministry of Communications of Iraq (MoC), the critical regulatory body over Iraq's communication & multimedia, in examining perceived trust, perceived security & Attitude for online purchase activity. In line with the Iraq objective of ensuring information security, network reliability, & integrity, it is highly recommended that online vendors consider users' attitudes and perception of trust & security. Towards that end, the Iraq CMC may conduct the grass-root level awareness program to promote the understanding & implementation of security measures for both online users & providers of communications & multimedia services. Hence, this study demonstrated that Attitude is an influential factor for online purchase intention, besides perceived trust, security in shaping an online purchasing culture towards the anticipated healthy future growth of e-commerce.

## Limitations

As with all research, this study has some limitations, & these are presented in this section. First & foremost, factors that influence online purchase intention other than perceived trust & perceived security are not considered in this study. There are other factors, & it is impossible to consider all of them. Therefore, some factors may have been missed in this study. Among those that affect online purchase intention, Privacy, controllability, knowledge, third party, familiarity, & self-efficacy can also have a considerable impact on purchase intention. Risk as a factor that impacts perceived trust & perceived security also is not considered in this study. The inclusion of these factors could play a significant role in establishing their impact on online purchase intention. Secondly, limitation of access to all online users & lack of collaboration with popular online shops in Iraq for data collection, for example (Aliexpress, Miswag, Mredy) hindered this study in covering the general Iraqi public. While the unit of analysis was confined to Iraqi students, their age range & their accessibility to the Internet & current literature had indicated them as a valuable proxy for online customers. Future studies may attempt nonstudents' points of view, resulting in some variation to the findings. Third, the limited selection of sampling based on a geographical issue may prevent the generalization of the results to the broader Iraq context. The sample for this study was based on seven public universities in Baghdad as the most developed & economic region in Iraqis a result, only other geographic contexts with similar characteristics may be used to extrapolate the findings. Additional research with different populations may be required to properly validate and validate the results. Fourth, there are different aspects of security & trust in different studies. Can be studied the security issue from either technical or non-technical perspectives. This study only considered minimal security knowledge for an online customer to navigate the chosen website & how to perform using electronic payment systems. The same concept may also be studied the trust in different aspects such as trust on the website, group members, & auction initiators. This study focused on trust in a website. Other factors that affect trust in diff v-00900erent aspects such as feedback or shared vision, Privacy, information quality, familiarity, which are not considered in the measurement of this study, & can be included for future research. Fifth, this is an empirical-based study where all concepts & their relationships are measured at one point in time. Lastly, an analysis of demographic data was omitted in this study. Demographic information such as age, gender, education level & income may allow specific additional insight into the sample's characteristics. It would be interesting to inquire further on online customers' purchasing behavior & motivation in terms of age categories. It will be attractive to pr on their attitudes towards security awareness & trust in virtual shops. Similarly, their educational background & gender may have some moderating effect on the factors used in such a study.

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