

Internet Perceived Benefits influence on Online Shopping Intention: Moderating effect of COVID-19 Awareness

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Abstract:

This paper is focusing on identify how the perceived benefits of internet may have effect on online shopping intention, and how the awareness of COVID-19 pandemic has effect as a moderating variable between acceptance of internet as a shopping tool and increasing shopping intension of the Egyptian consumers. The internet perceived benefits are identified by: perceived risk, perceived usefulness, perceived ease of use and perceived enjoyment. Data is collected using questionnaire collected from a sample of 374 using online shopping for clothing. The findings show that internet perceived benefits have a positive significant impact on online shopping, and the awareness of COVID-19 pandemic has increased the intention of online shopping, which means; the moderation variable positively affects the dependent variable through the independent variable.

Keywords: Online shopping, Internet Perceived benefits, Perceived usefulness (PU), Perceived ease of use (PEOU), Perceived enjoyment (PE), Perceived risk (PR), the awareness of COVID-19.

1. Introduction:

Starting February 2020, all people around the world were faced by the rapid spread of the Corona virus that has a risk of death. The spread of the virus certainly has an impact on the social and economic life of people around the world. Egypt is one of the countries infected by Covid-19, which certainly affected their social and economic life. During Covid-19 pandemic, Egyptians did activities such as work and study from home, therefore social interaction have been minimized.

This condition requires new lifestyle and mainly affected the purchasing behavior of most people around the world. Previously, online shopping was usually done by teenagers, however due to the situation of Corona virus online shopping has become more and more popular around the world. Egyptian consumers are switching more towards various online stores to satisfy their needs.

Therefore, the numbers of internet users who do their shopping online are constantly increasing over time However, the percentage of Egyptian consumers that use internet as a shopping

tool is lower than other countries in the world. It is revealed that shopping intention is one of the important factors that has a decisive impact on customers' shopping behavior (Blackwell et al., 2001; Mayer et al., 1995). Online shopping has great advantages and benefits (Kim et al., 2008; Liu et al., 2012).

First, online shopping enables consumers to purchase any products and services at any time wherever they are located. Second, online shopping allows consumers to compare product prices and therefore save money, effort, and time. Third, online shopping offers consumers to collect and search information with a high level of convenience. Delafrooz et al. (2011) assumed that such benefits would have a significant effect on consumers' intension toward online shopping.

Research that aims to identify the determinants of the online shopping behavior intension have applied various models such as technology acceptance model (TAM) and theory of planned behavior (TPB) has been widely used. TAM has become the framework for examining a wide range of online behavior.

TAM has been successfully as the theoretical framework to forecast online shopping intention and behavior by many research such as (Gefen et al., 2003a; Gefen et al., 2003b; Pavlou, 2003). TAM is originally introduced by Davis (1989). According to TAM, "intention" is directly impacted by some factors such as "perceived usefulness", "perceived ease of use"

and “perceived risk” (Davis, 1989). Other factors have been added to TAM such as perceived enjoyment (PE) (Davis, 1993).

2. Research problem:

Online shopping has faced a lot of barriers at Egypt. Egyptian online consumer’s behavior has been changed during the previous years due to the increased perception of online shopping benefits. A lot of researchers such as Grabner-Krauter and Kaluscha (2003), Chen and Teng (2013), Hanjaya, Kenny and Gunawan (2019) and Liu and Wei (2003) have been conducted to analyze the online shopping and online consumer behavior. However, few studies have researched the effect of the awareness of COVID 19 on the increased perceived benefits of online shopping intension at undeveloped countries such as Egypt. Most of the studies have been taken place before Covid-19. Since the announcement of the first infection of coronavirus in Egypt, and since the Egyptian government has issued “stay-at-home” orders in an attempt to slow the spread of the epidemic, consumers are also becoming increasingly aware of the associated risks. Therefore, many Egyptians are turning to technology for working, education and shopping to buy their daily necessities.

MasterCard study on consumer has revealed that nearly three out of four (72%) of Egyptian consumers are shopping more online since the announcement of the COVID 19 pandemic.

Fashion, electronics, healthcare and groceries have seen the highest of online activity. More than (62%) of Egyptian consumers said they had shopped more online for clothing, (56%) for computer equipment, and over (55%) said they had bought medicine online. (<https://newsroom.mastercard.com/mea/press-releases/72-of-egyptian-consumers-are-shopping-more-online-since-the-start-of-pandemic-reveals-mastercard-study/>)

This research is mainly questioning how the awareness of Covid-19 has affected the perceived benefit and acceptance of online shopping by the Egyptian consumers?

3. Research objectives:

This study aims to:

1. Point out the effect of internet perceived benefit as online shopping tool on online shopping intension.
2. Showing the moderating effect of the awareness of COVID pandemic on the relationship between internet perceived benefit as online shopping tool on online shopping intension.
3. Evolve a conceptual framework to understand internet perceived benefit as online shopping tool, online shopping intension and the awareness of COVID 19.

4. Empirically examine the framework concerning the relationships between online shopping, internet perceived benefits and the awareness of COVID 19.
5. Explore the results and suggest managerial implications to practitioners.

4. Research importance:

Reveal the significance of COVID pandemic role on the relationship between online shopping and internet perceived benefits contributes to the extant literature through the following:

1. The research highlights the importance of internet perceived benefits in increasing online shopping.
2. It helps to cover the gap related to previous studies that can be found by identifying the moderating effect of the awareness of COVID pandemic on the relationship between internet perceived benefit as online shopping tool on online shopping intension.
3. It determines to determine the most important dimensions of internet perceived benefits that affect online shopping.
4. It figures the importance of new concept which in the awareness of COVID 19.

Besides theses theoretical implications, this study also contributes to the managerial understanding on online shopping in certain ways, as follows:

1. Help marketers to engage the Egyptian consumer to convince internet as a shopping tool
2. Introducing internet to the Egyptian as an applicable, useful, enjoyable and easy tool for online shopping.

5. Literature review:

Technology acceptance model (TAM) is a theory that explains the user acceptance or rejection of a new technology. Applying TAM improves the user's acceptance through better system design (Davis, 1993). According to Davis et al. (1989), an efficient system design is summarized by perceived usefulness and ease of use. The original TAM presented by Davis et al. (1989), indicated that only external variables such as the system design characteristics, user characteristics and task characteristics affect the perceived usefulness and ease of use. Davis et al. (1989), found that subjective norms have no effect on perceived usefulness and ease of use and were omitted from their original model (Venkatesh & Davis, 2000). According to the original model, a user's attitude toward using a new system is mainly influenced by the perceived usefulness (PU) and the perceived ease of use (PEOU) of the system. Where PU is explained by to what extent online consumer believes that using technology will be useful and PEOU is explained by the degree to online consumers believe that using new technology will require effort. As much as the technology is perceived to be easy and useful by

online consumers the more the attitude toward using it will be positive (Aref & Okasha, 2020).

5.1 Internet Perceived benefits

Previous studies showed that online shopping is usually related to a positive customer experience especially if impacted by the different benefits that customers could perceive. Those benefits are usually not reflected in their experience of traditional shopping (Forsythe et al., 2006). This article inherits and develops four dimensions about received benefits from a number of previous studies, including perceived risk, perceived usefulness, perceived ease of use and perceived enjoyment.

5. 1. 1 Perceived risk (PR)

Perceived risk refers to “consumer awareness to uncertainty and bad consequences of his/her participation in a certain action” (Dowling & Staelin, 1994). The uncertainty associated with online transactions creates many different risks, these different risks are classified by Pavlou (2003) into: financial risk, seller risk, privacy risk and security risk such as credit card information. Hu et al. (2005), mentioned that perceived risk can be defined as “the uncertainty that customers face when they cannot foresee the consequences of their purchase decisions”.

5. 1. 2 Perceived usefulness (PU)

Perceived usefulness is one of major determinants of toward use in the TAM model (Davis et al., 1989). PU is defined as the degree to which the user believes that the technology will improve their online performance of an activity (Davis, 1989). Davis defined perceived usefulness (PU) as the belief that using the online medium will increase online shoppers' performance. Perceived usefulness helps customers to take decisions about online products. Perceived usefulness means offering rich information about products (Chen et al., 2002). Information about online retailer would affect consumer perception of usefulness. Hartono (2008) stated that perceived usefulness is how online consumers believes that using system will increase and improve performance.

Zarrad and Debabi (2012) related PU to the advantages that individuals receive from the usage of the internet as a shopping tool such as the reduction of time and effort needed in the process of shopping. For example, searching for information, comparing prices and tracking orders through the web will increase the effectiveness of the process of online shopping. Online sites that provide their customers with useful services to assist the customers in making better online shopping decisions will be perceived useful, and therefore, lead to the development of positive attitudes toward online shopping (Kim & Kim, 2004).

5. 1. 3 Perceived ease of use (PEOU)

Davis (1989) defined perceived ease of use as belief in ease of use, by which the online user believes that the technology is used easily without problems. Davis concluded that perceived ease of use is tied to the individual's assessment of their effort involved in the process of online shopping. According to Radner and Rothschild (1975), effort can be defined as a resource a person may allocate to the various online activities he or she may engage in. They claimed that usually websites that are perceived to be easier than another are usually more likely to be accepted by online users. Wen & Hsieh, (2011) defined perceived ease of use as the degree to which individuals find the innovation difficult to understand and use.

Fang et al. (2016), explained perceived ease of use as how those electronic services can help increase the value of the service as well as bring more benefits to consumers. Besides, expert shoppers who are used to use internet medium as a shopping tool would feel easier to purchase everything on the internet and they tend for more online shopping (Baubonienė & Gulevičiūtė, 2015).

5. 1. 4 Perceived enjoyment (PE)

Perceived enjoyment (PE) is defined as the extent to which the activity engaging online is perceived to be enjoyable regardless of the anticipated performance (Davis et al., 1992). It

has been confirmed that PE can be considered as an important determinant in user technology acceptance.

No one can doubt that due to home ban during the COVID 19 situation, internet and shopping online offers one of the only available joy and enjoyment. For this is reason, internet was easily accepted as an online shopping tool by the Egyptian consumers during the COVID 19 situation.

Internet provides consumers with great shopping experience and offers them a lot of information and easy access and convenience of the internet (Li et al., 2001). They found that users enjoyed interacting with the virtual world through internet. They concluded that using easy and advanced tools on websites leads to enjoyment and positive effect or attitude online shopping experience. Perceived Enjoyment leads to making the web sites more attractive which directly affects the users' online shopping intention. Lee et al. (2003), have found that enjoyment has a positive relation with customer satisfaction and intension to online shopping behavior.

5.2 Online shopping intention

Online shopping remains in the early stage of development at Egypt due to several reasons such as the underdeveloped delivery channels, inability to use online payment, mainly there is no knowledge about the acceptance of online shopping by the

Egyptian consumers. A customer from all around the world used to shop online, but the way they perceive and purchase products online varies. Moreover, no one can ignore the fact that due to increased awareness of the risk of COVID 19, the Egyptian consumers have been shifted to depend on online shopping heavily. There seem to be more acceptance and perceived benefits of using online medium as a shopping tool. Grabner-Krauter and Kaluscha (2003) mentioned that many consumers are still hesitated to shop online due to improper implementations of online technologies and infrastructures, which have often caused difficulties in consumer online shopping activities. Many researches have been conducted to compare traditional shopping vs online shopping and its advantages and benefits (Kim et al., 2008; Liu et al., 2012).

First, online shopping enables consumers to purchase products and services at any time, which was convenience during the COVID 19 duration. Second, online shopping allows consumers to save money, effort, and time when purchasing products. Third, online shopping allows consumers to search and collect more information. Such benefits have a significant and positive effect on consumers' attitudes toward online shopping (Delafrooz et al., 2011). These advantages have revealed heavily by online consumers due to COVID 19 situation, the importance of e-commerce has thus increased since it has provided the only means for shopping to satisfy consumption needs (Sheth, 2020). We chose online clothing as the context of our investigation as it

is one of the most sector that faced increased demand during COVID 19. Li and Feng (2011) and Senecal et al. (2005), and Baubonienė and Gulevičiūtė (2015) agreed that Online shopping has to satisfy the requirements of customers based previous shopping experience.

5.3 The awareness of COVID 19

Since the World Health Organization (WHO) announced the Covid-19 as a global disease and asked for efforts from all around the world (WHO, 2020), many countries have to try different policies to prevent the spread of this disease. Especially when government raised social distance as an important issue to control disease-spreading issue, all social activities must be controlled; which directly affect routines, traditional shopping and activities. Therefore, this study concentrates on the influence of the awareness of Covid-19 as the moderator variable which could indicate the change in the Egyptian consumer behavior toward online shopping intension.

6. Research model and hypothesis development:

6.1 Research Model

The proposed research framework (figure 1) shows that perceived risk, perceived usefulness, perceived ease of use and perceived enjoyment are the dimensions of internet perceived benefits. The model proposes that internet perceived benefits as

online shopping tool have a positive effect on online shopping. The model shows that the awareness of COVID 19 affect the strength of the relationship between internet perceived benefits and online shopping for clothing.

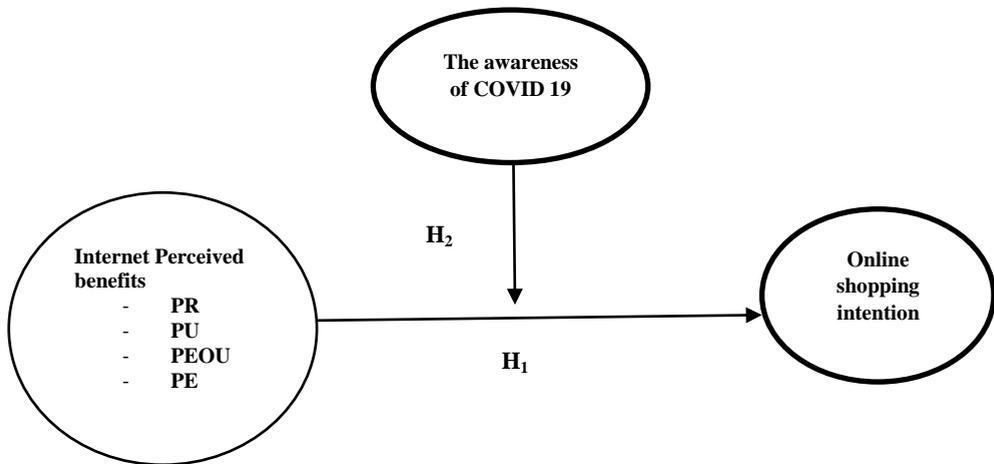


Figure 1: Conceptual framework

6.2 research relationships and hypothesis development

6.2.1 The effect of internet perceived benefit as online shopping tool on online shopping intension

Due to the simplicity of TAM the model has been applied for understanding consumers' online shopping intension and to

investigate the online consumer's behavior by many researchers such as (Yang et al., 2007; Heijden, 2012; Faqih, 2013; Albarq, 2014; Jin et al., 2015). In our research, TAM is used because the main advantage of this model is explaining the perceived benefits toward increasing the intension of online shopping.

The original TAM (Davis, 1989) identified perceived usefulness as a direct determinant of use, whereas, TAM (Davis et al., 1989) identified that perceived usefulness and perceived ease of use were direct determinants. However, there are several researchers revealed additional determinants who have a direct impact on the intention of online shopping. For instance, Davis, (1993) added the perceived enjoyment (PE) to reflect the degree to which online consumers enjoy and entertain the usage of technology. Pavlou, (2003) developed a new dimension of TAM by adding a perceived risk construct. The study revealed that risk has a negative impact on online shopping. Klopping and McKinney (2004) tested the impact of different TAM dimensions; and they found that PU is the key aspect of actual online shopping.

Singh et al., (2016) agreed that perceived usefulness can influence consumers' online shopping decision. Nguyen, (2020) also stated that perceived usefulness has a positive influence toward intention to online shopping. The experience of customers when shopping online is impacted by the different benefits that

customers could perceive because those benefits have not been shown in their experience of traditional purchasing (Forsythe et al., 2006). Researchers have found that PU influences online shopping intension (Koufaris, 2002). Venkatesh and Davis, (2000) and Moon and Kim, (2001) also realized that PU had a significantly positive impact on trust, attitude, and online shopping intentions.

Bisdee, (2007) revealed that online shopping sites which are able to provide useful services to consumers and which are not available through traditional shopping experience will be perceived as useful by online consumers, and thus lead to the favorable attitudes toward online shopping. This is supported by Childers et al., (2001) whereby their findings suggested that consumers who had favorable attitudes toward online shopping usually perceive online shopping as being useful. Online retailers that manage to provide easy access to useful information can increase their consumers' online shopping intention towards their products and services. According to McCloskey, (2004) shopping activity success depends on the ability to improve shopping performance, productivity, and accomplishing shopping goals. This is agreed with Scenario, Kim et al., (2008) argued that online shopping sites that provide functions to help consumers in making better online shopping decisions will be perceived as useful. Chen and Teng, (2013) and Hanjaya, et al., (2019) concluded in their study that consumers start to expect

personalized content and unique offers from online retailers. If they cannot deliver personalized content, usually consumers tend to search for other online competitors.

However, online shopper can respond either favorably or unfavorably towards the idea of engaging in online purchasing. Davis, (1989) states that the power to attract online shoppers lies in the technology's usability and usefulness. According to Mandilas et al., (2013) and Guritno and Siringoringo, (2013), perceived usefulness has an important effect on online shopping decisions.

The work of Selamat et al., (2009) further added that websites that is perceived to be easier to use than another is more likely to be accepted by user. This conclusion is supported by Teo, (2001) as his study concluded that a system that is easy increases the likelihood using technology in online shopping. Other found that the perceived ease of use had a positive influence on consumers' acceptance of the internet as a shopping tool (Bisdee, 2007; Yuliharsi & Daud, 2011). A study conducted by Rafique et al., (2020) indicated that perceived ease of use resulted in increased online shopping and purchasing intention. When individuals perceive that internet medium has no of difficulties or does not require a great effort, the perception of this internet as a shopping tool will be more easily recognized. The ease of use of online shopping services, concluded to have a positive effect on customers' online shopping intention in many

previous studies (Bhatti et al., 2018; Katawetawaraks & Wang, 2011; Lee et al., 2011; Yan & Dai, 2009).

It is argued that perceived usefulness (PU) and perceived ease of use (PEOU) of internet are major determinants of its acceptance as an online shopping tool. Both PU and PEOU influence consumer online shopping intentions (Wen & Hsieh, 2011). Their study proved that despite the fact that online shopping may have some beneficial outcomes, however using an interactive and easy website could be important and beneficial for some consumers. Wen & Hsieh, (2011) added that the negative perception of the internet such as (long downloading time and poor design) outweighs the perceived benefits of online shopping. Therefore, online shoppers are likely to continue shopping using traditional channels; and thus online users may develop a negative perception toward Internet shopping. Despite the fact that online shopping is useful, not all Egyptian consumers do online shopping. Mandilas, et al., (2013) realized that perceived ease of use has a significant influence on online shopping decisions. The ease of online shopping are also related to how goods and service is exchanged as well as the ability to easily access employees chatting help during online shopping selection, which is mentioned as a risky and critical issue by (Yan & Dai, 2009) compared to traditional shopping experience.

Additionally, the work of Childers et al.'s (2001) found that enjoyment and perceived usefulness and ease of use were strong indication of online shopping acceptance. They suggested that creating more enjoyable online shopping environment by using tools such as images, color, animation and other interactive tools would help consumers to identify online shopping a unique experience compared to the in-store shopping. Triandis, (1980) has concluded that the feelings of pleasure and joy have a significant effect on online shopping intension. Van der Heijden, (2003) found that perceived enjoyment has significant determinants of intention to online shopping. Perceived enjoyment was also employed in a study by Yi and Hwang (2003) and was also found to be significant. Davis et al., (1992) concluded that enjoyment, with perceived usefulness and perceived ease of use are significant determinants of attitude toward acceptance of technology. In online shopping, enjoyment has positive effects on online shopper's attitude toward websites (Eighmey and McCord, 1998; Mathwick, 2002; Jarvenpaa and Todd, 1997).

Other studies agreed that perceived risk negatively influenced online use's perceived usefulness or perceived ease of use toward online shopping (Liu and Wei, 2003). Therefore, perceived risk can be used in addition to perceived usefulness, perceived ease of use and perceived enjoyment to reflect customer internet perceived benefits. Some researchers had found a negative relationship between perceived risk and online

shopping intention such as (Hsin C. & Wen C., 2008). Vijayasathy and J. M. Jones (2000) concluded that perceived risk negatively influenced both perceived usefulness and perceived ease of use toward online shopping intension.

Therefore, hypothesis1 is built to be:

H₁: Internet perceived benefits as an online shopping tool (perceived risk, perceived usefulness, perceived ease of use and perceived enjoyment) will have a positive effect on online shopping intension.

6.2.2 The moderating effect of the awareness of COVID pandemic

While there are existing studies concentrated on online shopping around the world (Bobbit & Dabholkar, 2001; Goldsmith, 2002; Salisbury et al., 2001), few studies explored the effect of the awareness of COVID 19 on the increased perceived benefits and acceptance of online shopping intensions at one of the undeveloped countries such as Egypt. Our research is trying to reveal how COVID 19 situation affected the online shopping behavior at Egypt using TAM.

Egyptian consumers are gradually becoming aware that they need to stay home instead of going outside. They realized needs related to minimizing social activities and interaction (Baker et al., 2020; Lewis & Garbett, 2020; Retail Economics, 2020). Because of

this, it could be said that online shopping is an optimal alternative during social distance cause by COVID 19 crisis.

The online shopping behavior of consumers could be affected by many factors such as the demographic characteristics of customers such as age, gender and occupation, etc (Baubonienè & Gulevičiūtė, 2015; Fang et al., 2016; Ganesan-Lim et al., 2008; Yan & Dai, 2009), but other researchers revealed that online shopping is affected by two factors, which are customer's perception of risk factors and benefit factors (Häubl & Trifts, 2000; Katawetawaraks & Wang, 2011; Lee et al., 2011; Masoud, 2013; Yan & Dai, 2009; Zhang et al., 2014). In this research, we will focus on factors affecting acceptance of online shopping behavior for the Egyptian consumers, especially during the Covid-19 outbreak. This research would investigate how Covid-19 plays a moderating effect in each type of perceived benefit and acceptance of online shopping behavior using TAM model.

Therefore, the variable of awareness of Covid-19 used as a moderator variable to investigate how this variable affects the switch of Egyptian customer toward online shopping.

Therefore, hypothesis 2 is built to be:

H₂: Awareness of COVID 19 pandemic has a significant moderating effect between acceptance of internet as a shopping tool and increases shopping intension of the Egyptian consumers.

7. Methodology and results:

A quantitative approach was adopted in this study to establish the effect of internet perceived benefits as an online shopping tool on online shopping intension in the presence of the awareness of COVID 19 as a moderating variable. The approach was deemed appropriate as it enabled the researchers to objectively test and confirm the hypotheses.

7.1 Reliability and Validity

To verify the reliability and validity of the scale, the reliability of the scale means the ability of the scale to give the same degrees of the scale if it is reused after a limited period by the same person. And the validity of the scale means to make sure that the survey list will measure what it was prepared to measure, that is, the survey list includes all the elements that must be included in the analysis on one hand, and the clarity of its paragraphs and vocabulary on the other hand, so that it is understandable to everyone who uses it. The value of the reliability scale and the value of the validity scale can be clarified as the validity coefficient = the square root of the scale stability coefficient.

Table 1: Reliability and validity of the scale

| Variable | Axis | Reliability | Validity |
|-----------------------------|---------------------------|-------------|----------|
| Independent variable | Perceived Risk | 0.852 | 0.959 |
| | Perceived Usefulness | 0.878 | 0.973 |
| | Perceived ease of use | 0.797 | 0.927 |
| | Perceived enjoyment | 0.920 | 0.996 |
| Dependent variable | Online Shopping Intention | 0.830 | 0.947 |
| Moderating variable | COVID-19 awareness | 0.903 | 0.988 |
| | Total | 0.909 | 0.991 |

Source: The table prepared by the researcher according to SPSS v25 output (n = 374).

It is clear from the previous table, the study measures recorded relatively high stability coefficients ranging from 0.797 to 0.920, which are coefficients that exceed the generally accepted minimum of 0.7. It is also clear that these measures recorded high validity coefficients, ranging from 0.927 to 0.996.

Hence, the previous results indicate that there is an appropriate degree of internal consistency between the phrases used in measuring all the variables of the study, and thus the validity of the study tool logically and statistically for all field study data. So we can explain this in details as follows:

The validity of the internal consistency of the dimensions of (Internet perceived benefits and online shopping intention) was calculated using the Pearson correlation coefficient to measure the relationship between each item and the total axis degree.

- Independent Variable: Internet Perceived Benefits as an online shopping tool.

Table 2: Internet perceived benefits axis (Internet perceived benefits)

| Axis | X |
|---|-------|
| Perceived Risk | .824* |
| Perceived Usefulness | .748* |
| Perceived Ease of use | .699* |
| Perceived Enjoyment | .567* |
| ** Correlation is significant at the 0.01 level (2-tailed). | |
| * Correlation is significant at the 0.05 level (2-tailed). | |

Source: The table prepared by the researcher according to SPSS v25 output (n = 374).

The relationship of the correlation coefficients for each dimension with the total degree of the total dimensions to which it belongs is a function at a significant level (0.05) or less. The correlation coefficients ranged between (0.567, 0.824), which indicates that all axis are valid and correlated with the study tool, which indicates the validity of the study tool and its validity for field application.

- Dependent variable: Online Shopping Intention.

Table 3: Online Shopping Intention axis (Internet perceived benefits)

| items | Y |
|---|--------|
| I intend to shop through internet in the future | .678** |
| I would shop through internet in the future | .566** |
| I intend to shop through internet | .587** |
| It is probable that I would shop through internet in the future | .549** |
| ** Correlation is significant at the 0.01 level (2-tailed). | |
| * Correlation is significant at the 0.05 level (2-tailed). | |

Source: The table prepared by the researcher according to SPSS v25 output (n = 374).

The relationship of the correlation coefficients for each item with the total degree of the total axis to which it belongs is a function at a significant level (0.01) or less. The correlation coefficients ranged between (0.566, 0.567), which indicates that all dimensions are valid and correlated with the study tool, which indicates the validity of the study tool and its validity for field application.

7. 2 Sample and data collection

The target population of the study is people who live in Egypt and use online shopping to obtain their clothes. A non-probability convenience sample was used to test hypotheses of the proposed conceptual model; this sample type is commonly used in online shopping and engagement research.

The data was collected from all age groups who live in Egypt and use online shopping for clothing using paper-based self-administered questionnaire in English, over a period of three months starting from May, 2022. During that period, 381 were distributed among people and only 374 valid responses were collected. The male respondents represented 45.55% while 45.45% were female; ranging in age from 30 to 49 years, with a rate of 56.6%, followed by the age group from 18 to 29 years, at a rate of 25%, then the age group over 50 years, at a rate of 18.40%. The majority of the respondents are work in private sector with a rate of 32.9%, 22.4% work in public sector, then the retiree, with a percentage of 19.7%, then the Unemployed people,

with a rate of 10.50%, and Students with a rate of 7.9%, finally, Self-employed, with a rate of 7%, as shown in table 1.

Table 4: Characteristics of the study sample

| Gender | Frequency | Percent |
|------------------|-----------|---------|
| MALE | 204 | 45.55% |
| FMEAL | 170 | 45.45% |
| Total | 374 | 1.00% |
| Age Group | Frequency | Percent |
| 18 – 29 | 93 | 25.00% |
| 30 – 49 | 212 | 56.60% |
| Above 50 | 69 | 18.40% |
| Total | 374 | 100.00% |
| Occupation Group | Frequency | Percent |
| Student | 30 | 7.90% |
| Unemployed | 40 | 10.50% |
| Retiree | 74 | 19.70% |
| Private sector | 123 | 32.90% |
| Public sector | 83 | 22.40% |
| Self-employed | 24 | 6.60% |
| Total | 374 | 100.00% |

Source: The table prepared by the researcher according to SPSS v25 output (n = 374).

A structured-questionnaire was developed using Google form. The questionnaire has a cover page that include a synopsis of the study's aim, consent of respondents' voluntary participation and the contact information of the corresponding researcher. The instrument consists of two sections; the first section is related to demographic characteristics. The second section is related to the constructs of interest; the Internet perceived benefits as an online shopping tool has four dimensions: perceived risk was measured using four items adopted from (Dollin et al., 2005; Cunningham, 1967; Dowling & Staelin, 1994), perceived usefulness was measured using three items derived from (Davis, 1989; Davis et al., 1989; Venkatesh & Bala, 2008; Venkatesh & Davis, 2000), perceived ease of use scale is based on (Davis, 1989; Davis et al., 1989; Venkatesh & Bala, 2008; Venkatesh & Davis, 2000) and consists of six items, finally perceived enjoyment three items scale is derived from (Venkatesh & Bala, 2008). The online shopping intention as dependent variable was measured using four items derived from (Chen & Lee, 2008; Kraft et al., 2005). In addition, All the items were scored on five-point Likert scale ranging from (1) strongly disagree to (5) strongly agree.

In the following, we discuss the descriptive statistical measures of the research variables, as it is clear from the data of the tables related to these dimensions, the phrases that obtained

the highest degrees of approval and the lowest degrees of approval, according to the responses of the study sample.

➤ **Independent Variable: Internet perceived benefits as an online shopping tool axis.**

- Perceived Risk axis includes four phrases:

Table 5: Descriptive measures for Perceived Risk axis

| items | Mean | Std. Deviation | Variance | Rank |
|---|-------|----------------|----------|------|
| I think buying through trusted websites was a safe option | 3.791 | 0.923 | 0.852 | 2 |
| Using cash on delivery option (COD) was a safe option for online shopping | 3.400 | 1.627 | 2.646 | 3 |
| I feel online shopping transactions are closed to my expectation | 4.270 | 0.971 | 0.943 | 1 |
| I feel my personal data are in confidence while using websites as a shopping tool | 2.981 | 0.800 | 0.640 | 4 |
| Perceived Risk | 3.61 | 0.595 | 0.355 | --- |

Source: The table prepared by the researcher according to SPSS v25 output (n = 374).

The arithmetic means ranged from (2.981 to 4.27), and the coefficients of Std. Deviation ranged from (0.80 to 1.62). Among the most agreeable statements in answering the order were: (I feel

online shopping transactions are closed to my expectation), with Variance coefficients of (0.971). As it is clear from the table, also, the least phrases that received the least approval in the answer (I feel my personal data are in confidence while using websites as a shopping tool), with a Variance coefficient of (0.640), according to the responses of the study sample. The previous results indicate that the items related to the (Perceived Risk axis) came in agreement according to the five-point Likert scale, and these items were approved by the study sample.

- Perceived Usefulness axis includes three phrases:

Table 6: Descriptive measures for Perceived Usefulness axis

| items | Mean | Std. Deviation | Variance | Rank |
|--|-------|----------------|----------|------|
| Using internet as shopping tool is faster completion of activities | 4.364 | 0.880 | 0.774 | 1 |
| Using internet as shopping tool is easy of completing tasks | 3.947 | 0.696 | 0.485 | 3 |
| Using internet as shopping tool is useful in use | 4.227 | 0.934 | 0.873 | 2 |
| Perceived Usefulness | 4.18 | 0.7 | 0.49 | ---- |

Source: The table prepared by the researcher according to SPSS v25 output (n = 374).

From the previews table, the mean ranged from (3.94 to 4.36), and the coefficients of Std. Deviation ranged from (0.696 to 0.934). Among the most agreeable statements in answering the order were (Using internet as shopping tool is faster completion of activities),

with standard Variance coefficients of (0.774). As it is clear from the table, also, the least phrases that received the least approval in the answer (Using internet as shopping tool is easy of completing tasks), with a standard Variance coefficient of (0.485), according to the responses of the study sample. The previous results indicate that the items related to the (Perceived Usefulness) came in being strongly agree according to the five-point Likert scale, and these items were approved by the study sample.

- Perceived Ease of Use axis includes six phrases

Table 7: Descriptive measures for Perceived Ease of Use axis

| items | Mean | Std. Deviation | Variance | Rank |
|---|-------|----------------|----------|------|
| Using internet as shopping tool is easy to operate | 4.225 | 0.859 | 0.738 | 2 |
| Shopping online is clear and understandable application | 2.524 | 0.922 | 0.851 | 6 |
| Using shopping sites operates as I wish | 3.086 | 0.970 | 0.942 | 4 |
| Using internet as shopping tool is flexible in use | 4.187 | 0.685 | 0.469 | 3 |
| Using internet as shopping tool is easy to use | 4.361 | 0.927 | 0.859 | 1 |
| Using internet as shopping tool requires skills in use | 2.615 | 0.941 | 0.886 | 5 |
| Perceived Ease of Use | 3.5 | 0.433 | 0.188 | ---- |

Source: The table prepared by the researcher according to SPSS v25 output (n = 374).

From the previews table, the mean ranged from 2.52 to 4.36), and the Std. Deviation ranged from (0.685 to 0.970). Among the most agreeable statements in answering the order were (Using internet as shopping tool is easy to use), with standard Variance coefficients of (0.859). As it is clear from the table, also, the least phrases that received the least approval in the answer (Shopping online is clear and understandable application), with a standard Variance coefficient of (0.851), according to the responses of the study sample. The previous results indicate that the items related to the (Perceived Ease of Use) came in being strongly agree according to the five-point Likert scale, and these items were approved by the study sample.

- Perceived Enjoyment axis includes three phrases:

Table 8: Descriptive measures for Perceived Enjoyment axis

| items | Mean | Std. Deviation | Variance | Rank |
|--|-------|----------------|----------|------|
| Using the application, I can make transaction anywhere and anytime | 3.816 | 0.793 | 0.628 | 3 |
| Using the application, I don't need to queue to make transactions | 3.826 | 0.698 | 0.487 | 2 |
| I can save time by using the application | 4.345 | 0.751 | 0.564 | 1 |
| Perceived Enjoyment | 4 | 0.625 | 0.391 | ---- |

Source: The table prepared by the researcher according to SPSS v25 output (n = 374).

From the previews table, the mean ranged from (3.81 to 4.34), and the Std. Deviation ranged from (0.698 to 0.793). Among the most agreeable statements in answering the order were (I can save time by using the application), with a standard Variance coefficients of (0.564). As it is clear from the table, also, the least phrases that received the least approval in the answer (Using the application, I can make transaction anywhere and anytime), with a standard Variance coefficient of (0.628), according to the responses of the study sample. The previous results indicate that the items related to the (Perceived Enjoyment) came in agree according to the five-point Likert scale, and these items were approved by the study sample.

➤ **Dependent variable: Online Shopping Intention.**

Table 9: Descriptive measures for Online Shopping Intention axis

| items | Mean | Std. Deviation | Variance | Rank |
|---|-------|----------------|----------|-------|
| I intend to shop through internet in the future | 3.821 | 0.874 | 0.764 | 4 |
| I would shop through internet in the future | 4.350 | 1.008 | 1.016 | 1 |
| I intend to shop through internet | 4.211 | 1.118 | 1.250 | 2 |
| It is probable that I would shop through internet in the future | 4.027 | 1.254 | 1.254 | 3 |
| Online Shopping | 4.1 | 0.568 | 0.322 | ----- |

Source: The table prepared by the researcher according to SPSS v25 output (n = 374).

From the previews table, the mean for Online Shopping Intention axis ranged from (3.82 to 4.35), and the Std. Deviation ranged from (0.874 to 1.254). Among the most agreeable statements in answering the order were (I would shop through internet in the future), with standard Variance coefficients of (1.016). As it is clear from the table, also, the least phrases that received the least approval in the answer (I intend to shop through internet in the future), with a standard Variance coefficient of (0.764), according to the responses of the study sample. The previous results indicate that the items related to the (Online Shopping Intention axis) came in agree according to the five-point Likert scale, and these items were approved by the study sample.

➤ **Moderating variable: COVID-19 awareness.**

Table 10: Descriptive measures for COVID-19 awareness axis

| items | Mean | Std. Deviation | Variance | Rank |
|--|-------|----------------|----------|------|
| I'm aware of the novel COVID-19 epidemic | 1.842 | 0.356 | 0.133 | |

Source: The table prepared by the researcher according to SPSS v25 output (n = 374).

From the previews table, the mean for the COVID-19 awareness axis was (1.842), and the Std. Deviation is (0.356) with a Variance of (01.33), according to the responses of the study sample. The previous results indicate that the items related to the (COVID-19 awareness axis) came in yes with (80%) percent according to the Likert scale.

7.3 Test Hypothesis

Multiple linear regression was used to test the first hypothesis (H_1); Internet perceived benefits as an online shopping tool (perceived risk, perceived usefulness, perceived ease of use and perceived enjoyment) would have a positive effect on online shopping intension, to determine the effect of the independent variables on the dependent variable.

Table 11: Regression Analysis Result

| variable | Coefficient | t | Sig. | | |
|-----------------------|-------------|--------|-------|----------------|--------|
| (Constant) | 3.537 | 11.793 | 0.000 | F-test | 32.249 |
| Perceived Risk | -0.276 | -5.071 | 0.000 | F Sig. | 0.000 |
| Perceived Usefulness | 0.138 | 2.977 | 0.003 | R | 0.509 |
| Perceived Ease of use | 0.371 | 5.617 | 0.000 | R ² | 0.259 |
| Perceived Enjoyment | 0.210 | 4.826 | 0.000 | | |

Source: The table prepared by the researcher according to SPSS v25 output.

From the previews table, $R=0.509$, which means that there is a moderate positive relationship between the independent variables (Internet perceived benefits as an online shopping tool) which contains four dimensions; perceived risk, perceived usefulness, perceived ease of use and perceived enjoyment), and the dependent variable (Online Shopping Intention).

Also, the significance of independent variables between 0.000 to 0.003 was > 0.05 with t-test value between (-5.071 to 11.793) which means the independent variable is statistically significant. In addition, we can represent by a multiple linear regression model as the following:

$$Y = 3.537 - 0.276 \text{ Perceived Risk} + 0.138 \text{ Perceived Usefulness} + 0.371 \text{ Perceived ease of use} + 0.210 \text{ Perceived enjoyment}$$

The degree of significance F-test = 0.00 is < 0.05 , which means that the model is statistically significant. Also, reached the coefficient of determination is $R^2=25.9\%$, which means that 25.9% from changes in online shopping intention because of the change in internet perceived benefits as an online shopping tool (perceived risk - perceived usefulness - perceived ease of use - perceived enjoyment). The previous table also shows the effect of the independent variables on the dependent variable as follows:

- Perceived risk has a negative significant impact of (-0.276) on the online shopping intention of Egyptian consumers in the context of COVID-19 awareness; which means there is a reverse relationship between the variables.
- Perceived usefulness has a significant positive impact of (0.138) on the online shopping intention of Egyptian consumers in the context of COVID-19 awareness; which means there is a positive relationship between the variables.

- Perceived ease of use has a significant positive impact of (0.371) on the online shopping intention of Egyptian consumers in the context of COVID-19 awareness; which means there is a positive relationship between the variables.
- Perceived enjoyment has a significant positive impact of (0.210) on the online shopping intention of Egyptian consumers in the context of COVID-19 awareness; which means there is a positive relationship between the variables.

From the previous analysis, we accept hypothesis number 1; H₁: Internet perceived benefits as an online shopping tool (perceived risk, perceived usefulness, perceived ease of use and perceived enjoyment) will have a positive effect on online shopping intension.

Hypothesis number 2 is Awareness of COVID 19 pandemic has a significant moderating effect between acceptance of internet as a shopping tool and increases shopping intension of the Egyptian consumers.

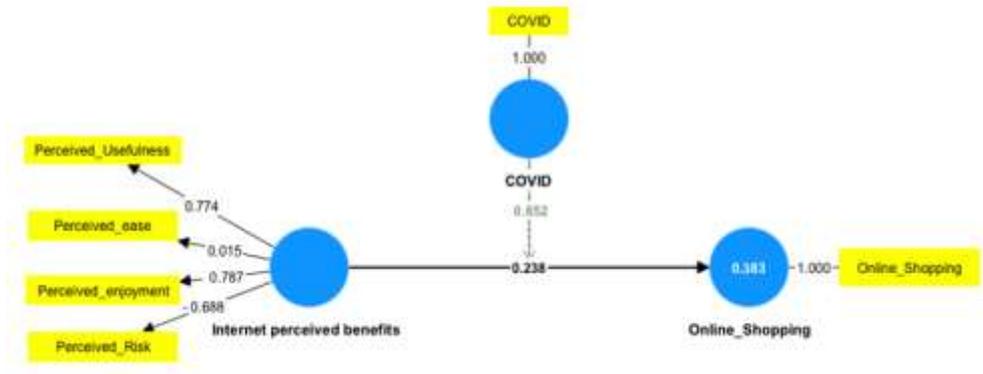


Figure 2: Path analysis to test H₂

Source: Smart-PLS V4 Output

It is clear from the previous figure that the value of $R^2 = 0.383$; which means that the independent variables explain 38.3% of the changes in online shopping in Egypt, and it is also clear that the increase in the coefficient of the determination is due to the COVID-19 pandemic variable mediating the relationship between acceptance of the internet as a shopping tool and increased shopping intention of Egyptian customers.

People's awareness of the new COVID-19 pandemic has increased the intention of online shopping by 23.8% according to the study model, which maximizes the perceived benefits of the Internet as an online shopping tool, this means; the moderation variable positively affects the dependent variable through the independent variable.

Also, The awareness of the COVID-19 pandemic has a significant moderation effect between acceptance of the internet as a shopping tool and increased shopping intention of Egyptian consumers.

So, we accept the following test hypothesis “Awareness of the COVID pandemic has a significant moderation effect between acceptance of the internet as a shopping tool and increased shopping intention of Egyptian consumers.”

8. Discussion and implications:

The purpose of this research is to empirically test the moderating effect of COVID-19 pandemic awareness on the acceptance of internet as a shopping tool and how it may increase shopping intention of the Egyptian consumers. The research results have shown a significant moderation effect between acceptance of internet as a shopping tool and increases shopping intention of the Egyptian consumers during COVID-19 pandemic. Shopping online does not seem to affect the Egyptian consumer’s buying intention until the epidemic appears. Although, the Egyptian consumers realize usefulness of internet as online shopping when the awareness of Covid-19 exists, Egyptian consumer’s online intention starts to be significant even after the clearance of epidemic. Furthermore, during the epidemic, age groups who are using internet as shopping tool does not only include young age groups, but 56.60% of age groups between (30-49) show acceptance of internet as a shopping tool. This shows that, businesses should focus on improving and upgrading their

interface to maximize access to their online platforms even after the clearance of the epidemic. Research indicates that is upgrade should focus on four dimensions to increases the internet perceived benefit as a shopping tool which includes perceived risk, perceived usefulness, and perceived ease of use and, finally perceived enjoyment.

Perceived risk (PR) is found to be negatively related with the online shopping intention. Even after internet acceptance nowadays as an online shopping tool, there is uncertainty in the majority of the Egyptian customer's about the willingness to shop online. In particular, customers are concerned about considering internet as a safe option. This concern was focused by number of prior studies (Pavlou, 2003; Hu et al.,2005) emphasizing that financial risk , privacy risk and security risk such as credit card information are the main concerns of online shopping. In addition, Vijayasarathy and J. M. Jones (2000) showed that perceived risk negatively influenced online shopping intension. Therefore, exchange or refund should also be focused and designed in a simple way to enhance the experience of online shopping for consumers (Pham et al., 2020). Using cash on delivery options and increasing personal data security can enhance trust of internet as a shopping tool and therefore shopping intension of the Egyptian consumers.

Perceived usefulness (PU) is found to be positively related with the online shopping intention. Customers agreed that internet is considered as a faster and convenient shopping tool. This shows consistency with prior researches (Koufaris, 2002 ; Venkatesh and Davis, 2000 and Moon and Kim, 2001) who showed that PU had a significantly positive impact on trust, attitude, and online shopping intentions. Egyptian Customers are mostly influenced by how internet can faster their shopping experience.

Perceived ease of use (EOU) had a positive impact on Internet shopping intention. This can be explained that using internet as a shopping should be free from effort to enhance shopping intension. This is consistent with Mandilas et al., (2013) who concluded that improving design interfaces, outdated information and facilitating search engines procedures may all contribute to customers' online shopping intension.

Perceived enjoyment (PE) is also positively associated with online shopping intention. Among the most agreeable statements in answering the order was (I can save time by using the application). Egyptian consumers explore various ways to reduce the time consumed from shopping activates. Therefore, they are likely tended to at least give chance to Internet shopping. Offering mobile compatible interface is an enjoyable way to enhance online shopping intension, which allow customer to make transaction anywhere and anytime. This was agreed by

Mandilas et al. (2013) who concluded that exploring various ways to reduce shopping time consuming and facilitating online shopping transaction anywhere and anytime should enhance shopping intention.

The result of the research contributes to the literature in the following ways. Firstly, the research investigates the importance of internet perceived benefits in increasing the Egyptian consumers online shopping. Secondly, it determines the most important dimensions of internet perceived benefits that affect consumers' online shopping. Finally, it helps to cover the gap related to identifying the moderating effect of the awareness of COVID pandemic on the relationship between internet perceived benefit as online shopping tool on the Egyptian consumers online shopping intension. In addition to the theoretical implications, the research contributes to benefit the marketers by improving the Egyptian consumers' perception of internet as a shopping tool. Additionally, the research find ways to help marketers find ways to enhance the idea of using internet by the Egyptian consumers as an applicable, useful, enjoyable and easy tool for online shopping.

9. Limitation and future research:

The research suffered from the following limitations: First, the research depends mainly on non-probability convenience sample. Second, the moderator variable selected for this research

was mainly about an epidemic emerged during 2020, which is the Covid-19. Third, although there is strong effect of age and gender on online shopping intentions, the research does not mainly focus on these factors but focused much on the effects of the epidemic. Finally, the scope of the survey of this research was only the Egyptian consumers.

Future research should consider follow-up studies to expand research across countries to compare differences between online shopping intentions behavior of different countries and cultures. Additionally, future research should consider other moderator variables to investigate their effect on the acceptance of internet as a shopping tool and shopping intension.

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