

An Empirical Investigation of E-commerce in Egypt: The Impact of Culture on Online Purchasing

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Abstract

The amount of e-commerce conducted on a global scale has grown exponentially as Internet access has become more widespread. However, there is a gap between the diffusion of online purchasing in Egypt and the overall usage of Internet in the country. This article aims to find out why there is a gap between Internet accessibility and the diffusion of e-commerce. The authors used an exploratory research as represented by the literature review which revealed two independent variables, one dependent variable and three mediating variables. The authors then developed a theoretical framework highlighting the usage of a single cross-sectional analysis. The authors then established and used a questionnaire as part of a conclusive, descriptive research design. The sample size was 113, with a 32.3 per cent response rate using a judgemental sampling technique. It was found that two specific aspects of the Egyptian culture, distrust and collectivism, impact Egyptians' online purchasing behaviour. Demographics were not found to have a very significant impact with the exception of age. The article is significant as even though there are a considerable number of papers regarding e-commerce, very few papers look at e-commerce in developing nations, and rarely any papers have researched the issue in Egypt. This study aims to address the shortage while simultaneously providing recommendations to the Egyptian business community for increasing e-commerce usage in the country.

Keywords

E-commerce, Egyptian culture, developing countries, Internet access, e-marketing, Egypt, trust

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Introduction

The Internet has made great strides in increasing the availability of products and transforming the way corporations conduct their business. The phenomenon of conducting business online has been known under the names of e-commerce, e-tailing and e-business (Ramzy, Ogden & Ogden, 2011) as well as other lesser known monikers. These terms refer to the transactions of data, processing purchases, managing inventory, marketing digitally and many other actions related to conducting traditional business operations using a digital, online approach. Three of the most common forms of e-commerce are found in business-to-business transactions (B2B), intra-business e-commerce and business-to-consumer transactions (B2C) (Ramzy et al., 2011; Vaithianathan, 2010). In other words, e-commerce ‘refers to commercial trade activities carried out by electronic methods, the electronicization of traditional trades’ (Qun, 2009, p. 8). E-marketing constitutes the efforts made on the selling side of businesses, while e-commerce focuses on selling and buying products, and both fall under the umbrella of e-business.

This article focuses on the B2C aspect of e-marketing in Egypt. This is mainly due to the apparent contradiction of the state of e-commerce diffusion in the country. Although over 36 million Egyptians (out of an approximate 85 million) have access to Internet (Ahran Online, 2013; MCIT, 2013), e-commerce remains only a fraction of the total business conducted in Egypt; less so than any developed nation. While e-commerce diffusion in African countries remains minimal (Zhu & Thatcher, 2010), it usually corresponds to a general lack of Internet access and/or disposable income. Egypt, in comparison to the aforementioned developed countries, might have low income per capita and only a relatively small level of Internet penetration, but this is not enough to justify that a mere 5 per cent of businesses utilize it (UNCTAD, 2013). To highlight this disparity, there are almost 16 million Facebook subscribers in Egypt alone (Farid, 2013).

The purpose of this article is twofold. The first purpose is to affirm the authors’ hypothesis that culture is a major reason for the low level of e-commerce diffusion in Egypt; this could provide a significant opportunity if properly investigated. The second purpose is to understand which elements of the Egyptian culture directly impact Egyptians’ perception and acceptance of purchasing and dealing online.

Review of Literature

E-commerce

E-commerce has emerged as one of the most important developments in business over the past decade (Iglesias-Pradas et al., 2013) and has been the subject of many studies. While e-commerce has very successfully replaced conventional selling and bricks-and-mortar stores, there are still some subtle differences that impact the way consumers perceive and behave towards the offerings of e-tailers (Liu & Wei, 2003). Thus, certain differences in the nature of services and products are fundamentally changed. Liu and Wei (2003) discuss how an element of uncertainty is added to the purchasing process of products as there is a delay between the purchasing, the arrival and consumption of the product. Furthermore, the product that is ordered may be in good condition at the time of purchasing, but it could sustain damage or defects during its delivery process. These aspects can help us explain the different attitudes of consumers towards e-commerce. This is in addition to other factors of uncertainty, such as the product being delivered at a time when no one can receive it, and other issues relating to the unique characteristics of online purchasing.

Adoption of E-commerce in Developing Countries

There is a significant gap between the adoption of e-commerce in developed and developing countries. Access to the Internet has grown exponentially for a multitude of reasons; one of the most important being the ever-decreasing price of Internet connectivity. In addition, more recently e-commerce has been spreading faster due to cheap access to Internet through the use of cell phones encouraging a new kind of e-commerce known as mobile marketing. Despite the proliferation of mobile Internet and mobile marketing, e-commerce in developing countries is currently 'Similar to what it was in the United States in the mid-90s' (Hawk, 2004). As a result, concerns have appeared regarding this 'digital divide'. This divide has been widening over the past few years impacting the competitiveness of small businesses in developing countries in relation to large, international companies that benefit from strong online markets (Zhu & Thatcher, 2010). This digital divide is even more pronounced in African countries where e-commerce remains negligible in the vast majority of its countries (UNCTAD, 2013). Molla and Licker (2005) state that though there are some studies that discuss the matter of barriers and obstacles towards e-commerce diffusion in developing countries, most tackle the macro-perspective while not taking any of the micro-aspects into consideration (Al-Hudhaif & Alkubeyyer, 2011). The micro-factors include the culture and subcultures existing in the different countries as well as the impact individual companies can have on the diffusion of online purchasing.

Barriers to the Diffusion of E-commerce

There are many barriers that nations need to overcome in order to take full advantage of the networked economy. According to Chaffey (2009), there are several obstacles to Internet usage from the consumers' perspectives, such as a lack of perceived benefit, distrust, high learning curve for using computers and the Internet and the added cost of purchasing an Internet connection. Nevertheless, this is simply regarding the adoption of Internet in general and not about e-commerce in particular. The issue at hand is that Egyptians who do have access to the Internet *simply aren't using it to purchase goods and services*. Among the reasons for this are the policies enacted by the Egyptian government that are rooted in an archaic bureaucracy which is detrimental to a healthy e-commerce system. In fact, it is recommended in the literature that governments should reduce restrictions on online purchasing as well as support its diffusion and inclusion in the economy (Zhu & Thatcher, 2010). This concept, unfortunately, is entirely at odds with the Egyptian government's philosophy on state support and regulations. The result of these policies is that only 22.4 per cent of Internet users in Egypt purchase goods online (AAG, 2012).

Part of the theoretical framework of this article is developed in response to one of the few papers written about e-commerce in Egypt by Rashid and Alsahouly (2012). In their paper, they argue that one of the major barriers to online purchasing is a lack of trust classified by Hofstede's 'Uncertainty Avoidance'. This supports the argument made by Gefen, Karahanna and Straub (2003) that trust impacts the willingness of customers to make and complete online purchases. The paper then gives an outline as to the many factors restricting e-commerce in Egypt. This article takes one of these aspects, the cultural aspect, and attempts to explore its relationship with e-commerce diffusion.

Motives for E-commerce Diffusion

Despite the aforementioned obstacles, the Internet (and thus e-commerce) represents a great opportunity for Egypt. In fact, the Internet has been used by a variety of groups with diverse agendas; from secular

liberals to trade unionists, and even Islamists. The incredible demand for Internet services from all of Egypt's diverse society could ensure that the advance of Internet access and penetration in Egypt will continue (Euromonitor, 2009). In addition, the Egyptian government has taken positive steps to encourage Internet usage, specifically through encouraging switching dial-up connections to the faster asymmetric digital subscriber line (ADSL) connectivity. At the same time, the price of ADSL connections has fallen exponentially which has encouraged more and more people to join the online community (Zayan, 2010). Over 44 per cent of the Egyptian population was connected to the Internet in 2012 which is a whopping 40 per cent increase over the previous 2 years (ITU, 2012). Moreover, about 61 per cent of the Egyptian households connecting to the Internet at home used an ADSL connection in 2008, compared to 56 per cent in 2007. A change in the Egyptian government and its steady march towards democracy could further cement these gains and allow it to continue on this path.

Predicting the Diffusion of E-commerce

There are already several theories considered when discussing predicting the diffusion of e-commerce and technology to consumers. Among them are the technology acceptance model (TAM), the technology readiness model (TRM), diffusion of innovation (DoI), the theory of planned behaviour (TPB) and the decomposed TPB (Davis, Bagozzi & Warshaw, 1989; Lin, 2007; Lin & Chang, 2011; Lindsay, Jackson & Cooke, 2011; MacVaugh & Schiavone, 2010; Meuter et al., 2000). All these models have been empirically tested and have shown the impact of products and ease of use, the perception of technology and even culture. However, the purpose of this article is not to test the viability or applicability of these models, but rather to discuss the importance of culture in diffusing e-commerce in order to give businesses in Egypt (and more generally in developing countries) guidelines for understanding and dealing with the culture and its impact on e-commerce.

The behaviour of consumers towards e-commerce is one of the major factors influencing the level of adoption and its prediction. In fact, most barriers related to e-commerce are related to aspects of consumer behaviour. In the study by Iglesias-Pradas et al. (2013), the major barrier to e-commerce is explained as 'risk perceptions (which would include privacy and security concerns), and specifically those which are related to trust, stand out as one of the most mentioned inhibitors of E-Commerce by non-adopters'. This leads us to the next point of discussing the impact of trust and (more importantly) distrust.

Trust and E-commerce

Trust and distrust have been studied extensively across many disciplines (Lewicki, McAllister & Bies, 1998). The role trust plays in many social constructs and situations cannot be overstated and e-commerce is no exception. In fact, trust is considered as a primary driver of growth of Internet and e-commerce diffusion (Urban, Amyx & Lorenzon, 2009). However, trust can have either positive or negative connotations. Naturally, this means that businesses attempt to build trust and relationships with their customers in order to achieve a positive outcome (trust) and negate a negative outcome (distrust). However, it has been noted in literature that while trust is usually considered to be the opposite of distrust simply resulting from a severe lack of trust (Ou & Sia, 2010), it has been found that trust and distrust are independent elements with differing constructs, results, responses and even neurological origins (Dimoka, 2010). This new distinction has resulted in a gap in the literature pertaining to the impact of distrust on consumers' behaviours, specifically with relation to e-commerce.

In the literature, distrust is defined as the expectation of a negative or harmful action (Dimoka, 2010). Ullmann-Margalit (2004, p. 67) describes distrust as follows:

When I lack the belief that you intend to act in my best interests with respect to a given matter, I do not trust you. I begin to distrust you when I am in a position to form the actual belief that you do not intend to act in my best interests in that matter. My distrust for you increases when I become suspicious of your intentions, and it increases still further when I come to form the belief that you actually intend to act *against* my interests in the matter at hand.

Add this previous statement to the knowledge that, according to the Hofstede Center (n.d.), Egypt has a very high level of 'avoiding uncertainty' as it scored an 80 on the Uncertainty Avoidance Scale of the 6-D Model. The role that trust and distrust play in general with regard to e-commerce is discussed Cho (2006) who found that there was a significant relationship between the level of trust and distrust and the willingness of customers to commit to a purchase.

For a more detailed and comprehensive review of trust and its implications for business and e-commerce, refer to Chen and Dhillon (2003) who give an excellent and thorough account on the nature of trust.

Collectivism and E-commerce

In order to understand the impact of culture on e-commerce, one must look at the degree of individualism/collectivism (Jena & Goswami, 2014). According to Frost, Goode and Hart (2010), the level of collectivism or individualism of a person relates to the level of interdependency between himself and other groups of people. This means that the higher the degree of collectivism, the more people are dependent on each other for enjoyment, activities and so on. On the other hand, a high degree of individualism means that the person is not at all dependent on other people. People with a high degree of collectivism are more likely to engage in wider social circles and participate in more events. The factors that collectivistic people find most important are 'family, interdependency, and sociability'.

As people become more collectivistic, they begin to show signs of reluctance towards doing something alone or independently. Additionally, there is a relationship between the degree of collectivism and the issue of trust of the consumers towards a business as discussed by Azam, Qiang, Abbas and Abdullah (2013). These both can have an impact on the way consumers see online purchasing as it is a more individualistic activity.

Demographics as Mediating Variables

There is significant controversy surrounding the role and impact of the consumers' demographics on their acceptance and behaviour towards e-commerce. Hernandez, Jimenez and Martin (2011) exemplified this in their paper as they tried to measure the impact of moderating variables on consumers' behaviours. The results, however, showed that there was no significant difference in the behaviour of consumers based on demographics; though this paper was mostly considering experienced online customers. Among non-regular online customers, the results were slightly more significant. As we do not expect the average Egyptian consumers to be experienced online customers, we will continue to use these as mediating variables and test their impact on the diffusion of e-commerce.

Research Objectives

The objective of this research is to identify the impact of the different cultural variables and demographics on online purchasing in Egypt. This will be done by explaining each of the individual factors in the model. Thus, the authors will study the impact of 'distrust', 'collectivism' and 'demographics' individually on the diffusion of e-commerce in Egypt (Figure 1).

Rationale of the Study

Online purchasing can be very appealing and many of its aspects are desired in the Egyptian culture. Furthermore, a large number of Egyptians are connected to the Internet and to various forms of social media. Additionally, a more modern lifestyle has been growing significantly in Egypt recently, along with a growing middle and upper class. This modern lifestyle is apparent in modern shopping centres, new brand-name arrivals, opening under the umbrella of corporate vertical retailing system, hypermarkets, trendy cafes that prove to be very appealing to the young adults and the two Egyptian revolutions which started through social media. Moreover, access to credit cards and e-payment has continued to increase and a very young population in Egypt ensures greater Internet connectivity in the future. However, despite all these opportunities, online purchasing remains underused and avoided by the majority of Egyptians. Thus, there is a great opportunity for e-commerce in Egypt. However, the cultural aspects that may establish barriers (or present opportunities) are still poorly understood.

Methodology

The authors conducted research using primary data obtained through an online questionnaire they developed for this study. The authors conducted a quantitative study of online purchasing using a conclusive, descriptive, single cross-sectional research design. The data were then compiled and analyzed using statistical programmes. Since the Internet has not yet become widespread amongst the Egyptian population, a simple random sample would achieve only a small number of respondents who have had experience with the Internet and, more importantly, online purchasing. This is in line with the logic of Meuter et al.'s (2000) sampling technique. Thus, the authors decided to use a judgemental sampling technique in this survey in order to increase the incidence of finding relevant respondents. While this will cause limitations in generalizing the results across Egypt, it will serve the needs of this study while remaining within the time and budget constraints of the authors.

Sample Size

The authors developed an online survey and distributed it randomly to 350 respondents as well as posted it on the authors' institutional website. The authors prevented multiple responses by allowing respondents to answer only once based on their IP address. While this survey will not be completely representative of the Egyptian population, it should be representative of the population of Internet users in Egypt. There were 113 responses with a response rate of 32.3 per cent ($n = 113$).

The Survey

Collectivism was measured by asking respondents regarding the willingness of Egyptians to act in a group, to purchase together, to go shopping as a family, etc. Distrust was measured by asking the respondents about the risk they associate with buying online as well as how much they expect the products to meet their expectations, whether they need to see a product to assure its quality, etc. The authors designed the survey based on a single cross-sectional design. Results of the questions were coded on a Likert five-level scale and then combined in order to measure their relationship with the frequency of online purchases of the respondents.

Limitations

While there is significant literature in the field of e-commerce, there is less so when it comes to developing countries. Due to the large gap in technology and Internet between developed and developing countries, the existing models and variables can only play a limited role in explaining the impact on people living in developing countries. Furthermore, as the test was only online, the authors could not get a representative sample of the general Egyptian population. This also led to a disproportionate level of high-income Egyptians to respond as they are more likely to have regular Internet access as well as a credit card. Another issue is that the survey was in English, further limiting the number of Egyptians who could understand the survey and respond properly. The model is not perfectly based on existing models as literature is limited on models for developed countries.

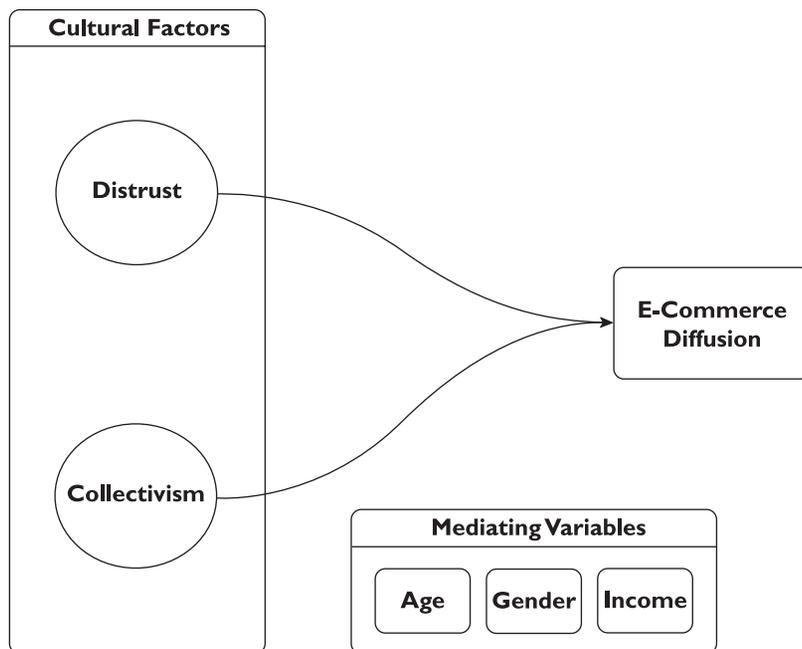


Figure 1. The Theoretical Framework

Source: Prepared by the authors.

Analysis

At the end of the survey, 113 responses were gathered ($n = 113$); 22.12 per cent had never purchased a product or service online. The respondents were asked about their occupations; 26.5 per cent were managers, 3.5 per cent freelancers, 8 per cent operated their own business, 23 per cent were students and 4.4 per cent were unemployed. This already shows the disparity between the sample and the general Egyptian population as Internet users are more likely to be those with higher education and positions (managers and students) than anyone else. However, as previously stated, only the population of Egyptian Internet users was being taken into account; 57 per cent of those surveyed were males and 43 per cent were females. The average age of the respondents was approximately 30 years. Most respondents were below 40 years during the time of this study (see Figure 2).

The authors analyzed the data resulting from the survey using ‘R the Statistical Package’ (R Core Team, 2014). The authors first analyzed the relationship between the mediating variables and whether the respondents had previously purchased online. This was done by using a Student’s t -test as the population variance and standard deviation remained unknown (Lind, Marchal & Wathen, 2012). Then, the authors used a test of correlation to see, among those who had previously purchased online, the correlation between the mediating variables and the frequency of purchasing products and services online. The mediating variables that were found significant were analyzed using an analysis of variance (ANOVA) in order to measure the reliability of data that they represent a single population. Then, a linear regression was used to measure how much of the frequency of purchasing could be explained by the significant mediating variables. Finally, the variables were tested for multi-collinearity to see if there were

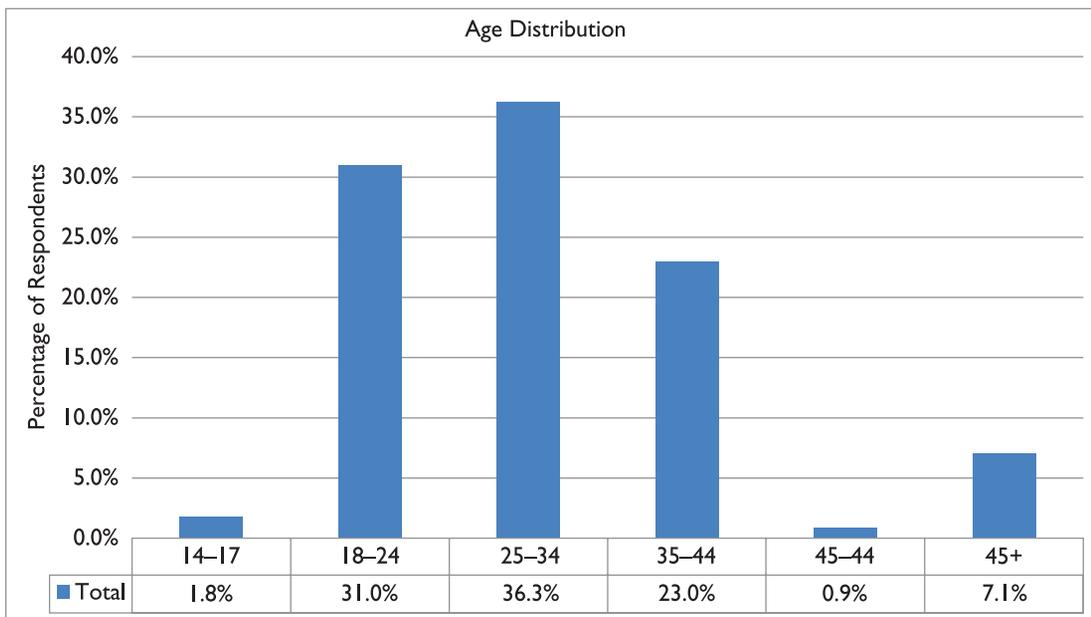


Figure 2. Age Distribution

Source: Prepared by the authors.

Table 1. Analysis of Mediating Variables

Mediating Variable	t	Corr.	ANOVA F-value	R-squared	VIF
Age	-2.53**	0.33***	15.19***	0.15***	1.4
Income	-3.14***	0.34***	3.64*		
Gender	0.9661	-0.12	N/a	N/a	N/a

Source: Prepared by the authors.

Notes: *Significant at > 90% confidence; **significant at > 95% confidence; ***significant at > 99% confidence (two-tailed).

limitations to the analysis; multi-collinearity is measured by measuring the variance inflation factor (VIF) of the variables. The results are presented in Table 1.

In Table 1, it is seen that both age and income have an impact on whether or not the respondent had purchased a product or service online. However, it was found that there was no significant difference between males and females in this regard. This was supported by Spearman's rank correlation as it was found that while both age and income were significant (at $P < 0.01$), there was no significant correlation between gender and the frequency of purchasing. The results imply that gender is not significant as a moderating variable. Age and income, however, were used to make a linear regression analysis.

From this analysis, it was found that approximately 15 per cent of the frequency of online purchasing could be explained by the age and income of the respondents. It is often considered that age is inversely proportionate to the level and sophistication of the usage and dissemination of technology. However, in this case, we find the opposite. In fact, as age increases, Egyptians are more likely to purchase online. This could be directly related to aspects such as income and education increasing the likelihood of said Egyptian having access to Internet in the first place. While it is still too early to make any concrete inferences as to the relationship between age and the diffusion of e-commerce in Egypt (and perhaps, by association, developing countries), we can assume that the relationship between the two might not be as straightforward as discussed in the literature.

The authors then tested the inter-reliability of the questions using Cronbach's alpha. According to Weiss (2012), there is a very strong reliability between items with a greater than 0.90 alpha, strong reliability above 0.70 alpha and moderate above 0.50. For the sake of this research, 0.50 alpha will be the minimum threshold for using multiple questions in a single variable. Tests of correlation, linear regression and ANOVA were made between the independent variables and the dependent variable to see their relationship (see Table 2).

In this analysis, we see that the inter-reliability of the independent variable is greater than 0.50. This means that there is sufficient inter-reliability in order to assume that the questions reliably represent the variables. Next, the authors concluded that there is a significant relationship between collectivism and online purchasing as well as between distrust and online purchasing. However, the significance level of collectivism is only at 90 per cent ($P < 0.1$) which, while not quite significant, suggests a relationship which may appear in future studies.

With the regression analysis, we further see the limitation of collectivism in explaining the online purchasing behaviour of Egyptians. While distrust is significant with over 99 per cent confidence ($P < 0.01$), collectivism is not significant in predicting e-commerce diffusion.

After removing the variables that were not significant in the linear regression and inserting the mediating variables that were significant, the regression equation was as follows:

$$eCommerceDiffusion = Collectivism + Distrust + Age + Income + Constant$$

Table 2. Analysis of the Independent Variables

Independent Variables	Corr.	Cronbach's Alpha	ANOVA F-value	R-squared	Adjusted R-square	VIF
Collectivism	-0.17*	0.52	4.22**	0.21	0.2	1.04
I prefer to go shopping in a group	-0.27***	0.52	8.92***	–	–	–
I take the opportunity of shopping to go out with friends, family or kids	-0.02	0.52	0.82	–	–	–
Distrust	-0.45***	0.74	25.2***	0.21***	0.2***	1.04
From my point of view, the decision to purchase products online involves high risk	-0.4***	0.74	21.85***	–	–	–
I believe that online purchased products will not match my expectations	-0.42***	0.74	7.06***	–	–	–
For me, seeing is believing, especially when buying new products	-0.29***	0.74	0.822	–	–	–

Source: Prepared by the authors.

Notes: *Significant at > 90% confidence; **significant at > 95% confidence; ***significant at > 99% confidence (two-tailed).

Table 3. Linear Regression of Significant Variables

Variables	Estimate	Std. Error	t-value	ANOVA F-value	R-squared	Adjusted R-squared	VIF
Constant	2.83***	0.64	4.45	N/a	0.25	0.24	1.05
Distrust	-0.78***	0.174	-4.47	27.52***			
Age	0.02***	0.01	3.12	9.78***			

Source: Prepared by the authors.

Notes: *Significant at > 90% confidence; **significant at > 95% confidence; ***significant at > 99% confidence (two-tailed).

The results from this model showed that only distrust and age were significant at the 95 per cent confidence level ($P < 0.05$). Thus, the authors redid the regression analysis with the following formula:

$$eCommerceDiffusion = Distrust + Age + Constant$$

The results are presented in Table 3.

Results

We can conclude for the statistical analysis that distrust is inversely related to the level of e-commerce diffusion and the frequency of Egyptians purchasing products and services online. The results were significant at the 99 per cent confidence level ($P < 0.01$) and that distrust and age explain approximately

25 per cent of the frequency of online purchasing amongst Egyptians. However, income and gender were found to have no significant impact on such buying behaviour, and collectivism was only weakly correlated ($P < 0.1$).

One comparison that is quite often made regarding data gathered in Egypt is the similarity between Egypt and the surrounding countries in the Middle East. Due to shared religion, culture, political systems, technology and even sometimes ethnicity and demographics, the Middle East can often serve as a cluster. In this cluster, generalizations and conclusions can be made to the entire region from one sample; in this case, the sample taken was Egypt. In fact, any nation that shares cultural similarities with Egypt with regard to collectivism and uncertainty avoidance can plausibly be included in this model.

In addition, some interesting results have appeared, namely, that collectivism did not have a significant relation with e-commerce diffusion at the 95 per cent confidence level. However, this could be related to the fact that this model did not take into account high-involvement products. While these products may be included in respondents' answers, the majority of products purchased online are usually low-involvement products. In this regard, people who buy a high-involvement product are more likely to take other people with them, to ask other people their opinion and to generally involve others within the decision-making process. This is especially true for collectivistic cultures. In this regard, we would recommend that future studies include a way to separate high-involvement products from low-involvement in order to account for this difference.

Recommendations

The Market Potential: As covered by the literature review, there is significant potential in the online market in Egypt. The sheer size of the Egyptian population, the rising use of credit cards and a very young demographic all help in creating a great potential for e-commerce in the country. This, however, comes with some obstacles, namely, the aforementioned barriers can prevent both national and international companies from establishing strong e-marketing channels in Egypt and in other developing countries. Some of these issues are beyond the control of businesses and other organizations as many obstacles stem from the political and legal environment in these countries. Yet, businesses should not wait for the government to act on such macro-level issues while there is still room for companies to change the situation on a micro-level (Molla, 2004). While some papers focus on businesses changing internal policies and governmental readiness (Molla & Licker, 2005; Vaithianathan, 2010), this paper focuses on a customer-oriented path towards gaining increased acceptance for e-commerce.

It is, in fact, possible to increase the level of acceptance of e-commerce among consumers by addressing their distrust. Before attempting to build a relationship of trust with the Egyptian consumer, e-tailors should first consider how to eliminate distrust, thus removing a significant barrier towards purchasing. This constitutes a large untapped potential as many institutions focus on building up trust among their existing customer base, but do not see the benefit in eliminating distrust.

By implementing a cohesive strategy aimed at reassuring customers' fears, a major obstacle against e-commerce can be removed, but a significant motivation needs to be added in order to give customers a reason to favour e-commerce over traditional purchasing. This can be done by understanding Egyptians' collectivism and by targeting groups rather than individuals when establishing the online marketplace.

Gökmen (2012) argues that it should be the government's responsibility to promote the safety of online shopping and regulating the system. However, businesses in Egypt do not have the luxury to wait around for the government to recognize the weight and importance of this issue. This inaction by the government also provides an opportunity for businesses to promote the safety of *their* networks and *their*

online purchasing systems and pull ahead of the rest of their competitors. Among the methods that companies can use could be guaranteeing returns on unsatisfactory purchases. By doing so, the enterprise could eliminate the fear that the product will not meet the customers' expectations, or that it looked differently online than in reality. Another method is by providing extra security measures for online purchasing in order to avoid any hacking scandals that could evoke customer distrust. To further avoid the problems of online purchasing, companies facilitate the process by allowing for cash-on-delivery option which removes the need for credit cards as well as the fear (or distrust) of credit card information being stolen. This is already happening in many online businesses, but there is still great room for improvement.

In this regard, several companies have already begun to appear in Egypt applying such concepts and taking advantage of this market asymmetry, namely 'BEE' and 'Fawry', which work in providing electronic payments in exchange for cash. As the world continues in its transition to a cashless economy, Egypt remains a strictly cash-based economy. A way to remedy this is by cash payment solutions that can bridge the gap between people who prefer to pay cash, and the convenience of cashless methods. This market alone could not only prove to be a very lucrative one in the future but also open the door for many more e-commerce methods to begin entering the Egyptian market.

The Impact of Culture: This is one of the most interesting findings of the research. The impact of collectivism on online purchasing was not found to be very significant ($P < 0.1$). This could be attributed to the fact that while Egyptians are a very close and interdependent society, the products and services that are purchased online are not considered among the products that would constitute an activity that is ripe for socializing and catching up with friends and family. While there are still many ways through which collectivism can impact the online purchasing process, this study has only found a limited relationship.

The understanding of impact of collectivism on online purchasing does not mean that culture in general should not be taken into account. The article's conclusions bring out many questions regarding the impact of the different dimensions of the Egyptian culture on e-commerce diffusion. Egyptians' fatalistic mindset, heavy religious influence, risk avoidance and high context society offer many implications that have not even been touched upon in existing literature in relation to online purchasing. In fact:

Marketers can't take the cultural elements for granted. If they are keen to attract customers and engage them online, then local customs and traditions should be addressed online as one does with traditional brick and mortar stores. If firms don't protect their customer's cultural concerns they risk losing their momentum and may unintentionally generate negative word of mouth. (Ramzy et al., 2011)

While Santos (2003) argues that while 'focusing on the quality of service is the primary concern of Internet based E-Commerce', companies have yet to take this into account in their attempt to localize or adapt their e-commerce platform. Adding a cultural or local aspect to the purchasing process could be more important than the price of the products or the other benefits of online purchasing in the consumers' eyes.

Thus, the implications of this research show that perhaps there are other cultural factors at play when dealing with e-commerce, and that they must be studied much more extensively, especially with regard to developing countries where there is a dearth of literature on these topics.

Demographics: While this still should be verified by other independent studies, the finding that there is a positive correlation between online purchasing and age is a very interesting takeaway. It cannot be taken for granted that the younger generations are more likely to purchase online. Whether it is due to an indifferent view of piracy, lack of access to a credit card, lack of (or no) income or even a combination of all of these, it is apparent that e-commerce might not be as youth oriented as it was previously

supposed. One should not fall into the assumption that the younger segment will be the source of most online purchases without an extensive study of the market. In fact, as previously discussed, the demographics are shown to have limited to no impact on e-commerce purchasing behaviour; while this should still be confirmed by future research, it is recommended that demographics not be taken into account so much when attempting to identify (or predict) customers' behaviour.

Conclusion

While the Internet has become a staple in countries all around the world, e-commerce has not always been met with the same success. This is especially true for developing countries as the digital gap continues to grow between the developing and developed countries. The reasons for this vary between the macro-perspective (infrastructure, government policy, etc.) and the micro-perspective (culture, local businesses, etc.). In this regard, the authors attempted to understand the different cultural aspects that impact e-commerce diffusion in Egypt.

The authors believe that there are two main factors impacting the dissemination of e-commerce in Egypt: distrust and collectivism. In order to validate this, the authors surveyed 113 Egyptians ($n = 113$) to test their model. After conducting a statistical analysis, the authors found that distrust was significantly related to online purchasing, while collectivism was only weakly related to online purchasing. Finally, the demographics were tested to see if there was any correlation between them and online purchasing, and it was found that only income had a very significant correlation (correlation coefficient of 0.34), while age had a less significant correlation to e-commerce diffusion.

It is apparent that the factors that impact e-commerce in Egypt and, more generally, in developing countries are still not very well understood. However, one aspect that appeared very significant in every test was distrust. Distrust (especially in a high risk-avoidance culture) plays a very significant role in limiting e-commerce diffusion and can be considered to be a huge opportunity for the companies that are able to take the initiative and target this distrust in an effort to increase their customer base, and allow for e-commerce to take its place in the Egyptian market.

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