

# E-Commerce in Saudi Arabia: Acceptance and Implementation Difficulties

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**Abstract** - *Despite the fast growing economy, the dramatically increasing internet usage and the significant purchase power of Saudi Arabia compared to other countries in the Middle East, the evolution of E-Commerce remains slow and is inconsistent with such growth nor with the growth of E-Commerce in developed countries. This paper is conducted for exploration purposes to initially determine the most significant inhibitors of the acceptance and implementation of E-Commerce in Saudi Arabia for both merchants and individuals in order to conduct further quantitative research. A small sample of merchants and consumers is selected. The Saudi merchants, individuals and Saudis in USA data collected for this research is used to analyze inhibitors of acceptance and implementation of E-Commerce in Saudi Arabia. The most common inhibitors resulted from this research will be used for constructing surveys on a large nationwide sample for future studies. The study also proposes a framework for key decision makers and to be used in the further research in compliance with gathered data based on achieved analysis in this research.*

**Keywords:** E-Commerce, Saudi Arabia, Government Support, Payment Systems, Awareness

## 1 Introduction

E-Commerce adoption and implementation in developed and developing countries have been extensively researched with focus on consumer behavior or business issues. However, the amount of studies concentrating on E-Commerce in Saudi Arabia is inadequate [1], [2]. Furthermore, most of the studies either focus on businesses or consumers. This study will focus on E-Commerce implementation and adoption for both businesses and consumers.

As an important economic growth factor, E-Commerce became vital for many businesses to remain in competitive markets. Therefore, having an online option for sales is dramatically increasing in developing countries. However, this increase is not applied to E-Commerce in Saudi Arabia. E-Commerce in Saudi Arabia is trending slowly even with its strong economy and vastly growing internet usage [1], [3], [4].

This paper is attempting to study the inhibitors of E-Commerce acceptance and implementation in Saudi Arabia.

In this study, we explore the issues facing consumers and retailers to prepare for further quantitative research of E-Commerce, and are trying to determine which inhibitors affect most and to what extent. We are also trying to explore unstudied factors to determine the rate of their effectiveness on acceptance and implementation of E-Commerce in Saudi Arabia.

## 2 Literature Review

Several broad researches have been conducted to study E-Commerce acceptance in developing countries. Such studies varies between focusing on general perspectives like social issues, and particular perspectives like online payment methods, trust, government role and delivery systems [1], [2], [5]–[8]. Some researches focus on large regions [9], and some focus on specific countries like Saudi Arabia [1], [5]–[7], [10], [11].

E-Commerce adoption factors and implementation issues in Saudi Arabia have been studied [11]. In this section, we provide a brief overview on the studies that concentrate on adoption factors, issues related to implementation, demographics of internet users, and proposed questions to answer for both consumer and business in development countries.

### 2.1 E-Commerce in Developed Countries

In the 90's, the evolution of E-Commerce practice have begun in most developing countries. The quick evolution of E-Commerce transactions in developed countries have been noticed [6]. Such practice is commonly acknowledged to be a factor of economic progression in developing countries [10]. In 2002, the global spending growth resulting from E-Commerce transaction reached around 0.27 trillion USD significantly jumped to 10 trillion after a decade [6].

### 2.2 E-Commerce in Saudi Arabia

Some research and statistical reports illustrate significant growth of internet, mobile and social media usage in Saudi Arabia. Most of these studies focused on either the business or the consumer perspective, but not both. Other researchers conducted several studies focusing on either business or consumer, as well as on both [2]–[4]. Additional researches studied the perspectives of business only regarding the acceptance of E-Commerce in Saudi Arabia [3], [5], [10], [12]. For examples, Al-Hudaif & Alkubeyyer studied internal and external aspects of E-Commerce acceptance [10].

Almousa conducted a research to profile online shoppers in Saudi Arabia [7]. An interesting report by de Kerros Boudkov Orloff discussed different factors related to business, consumers, government and banks [13]. Several solutions, like *The Five-Part Conceptual Model* framework proposed by AlGhamdi, Drew and Alhussain, among others are proposed. AlGhamdi's framework discusses critical issues that significantly affect the progress of implementing E-Commerce in Saudi Arabia. Those factors are: secure and trusted online payment methods, consumer protection, market place regulations, certification authority and delivery systems [6].

According to the report published by Sacha Orloff Consulting Group, computer and internet access for Saudis reached 65.8% of population [13]. Research and statistical reports on E-Commerce did not consider if transactions are associated with a local or an international vendor. The statistical report conducted by discoverdigitalarabia.com shows that results from respondents of a survey on E-Commerce in Saudi Arabia without indication if all or some transactions are from local vendors [14]. However, the report, as well as the report by Sacha Orloff Consulting Group, present valuable statistical results for researchers, especially for qualitative research, such as purchase frequency, monthly spending, payment method used, and first online purchase. In addition, both reports offer statistics about mobile usage in online purchase [13]–[15]. The usage of mobiles among Saudi population has outstandingly grown to 1.8, meaning for every 10 individuals there are 18 mobiles, to reach 95% of residents. Such results open doors for research to consider mobile usage for online purchase or at least for advertising the products.

Similarly, there is also remarkable growth in social media usage in Saudi Arabia. Statistical reports and information graphics about social media usage in Saudi Arabia puts it in top of other countries in the region and the world. According to The Social Clinic report early 2013 titled *The State of Social Media in Saudi Arabia 2012*, Saudi Arabia ranked number one in the world for the number of daily viewed videos, 90 million, on YouTube! [16]. Saudi Arabia also ranked number one in the world in Twitter growth rate of 3,000% which is 10 times the average global rate. Third, 2 out of 6 million, Facebook users in Saudi Arabia only used mobiles to access Facebook last year [16]. Research and reports about Saudi Arabia's growth in internet usage, social media and mobiles should consider such factors in their studies because some research results stated that internet and technology negatively inhibit the acceptance and implementation, which might not be accurate.

### 2.3 Factors influencing the evolution of E-Commerce in Saudi Arabia

There have been several overlaps between studies discussing inhibitors of E-Commerce in Saudi Arabia. Most agreed on a number of factors including but not limited to:

- Government regulations
- Delivery system

- Online payment
- Lack of trust
- Internet security and privacy
- Information and Communication Technology (ICT) infrastructure
- Business systems integration
- Banks and credit cards issuance
- User readiness and awareness
- Institutional roles

Those inhibitors have been studied using different approaches with a variation of data samples [3], [4], [6].

### 2.4 Review Conclusion

The inadequate research volume conducted to study E-Commerce in Saudi Arabia and the lack of large assortment statistical reports create a chance for further research [11]. Some common factors may be diminishing by other researchers like the user readiness and awareness, and ICT infrastructure. In addition, some factors could be added for further studies such as mobile usage and social media. More research related to mobile and social media could result in more reliable findings [13]. The most essential issues that researchers focus on are: payment methods, E-Commerce regulations and delivery systems. Although those issues are considerably obstructing E-Commerce in Saudi Arabia, they have not yet been resolved.

### 2.5 Questions of the Study

The objective of this paper is trying to answer the following questions in order to conduct further quantitative research on a large sample:

- What are the main differences of inhibitors in accepting E-Commerce in Saudi Arabia between local Saudi consumers and Saudis in USA?
- Do mobile usage and social networking play any role in E-Commerce in Saudi Arabia?
- What are the most common aspects that negatively or positively affect the acceptance and implementation of E-Commerce in Saudi Arabia?
- What solutions are most likely to be successful to resolve the problems of acceptance and implementation of E-Commerce in Saudi Arabia?
- What solutions can be added to escalate the rate of acceptance and implementation of E-Commerce in Saudi Arabia?

## 3 Methodology

A qualitative approach for this study is utilized for primary exploration research. The qualitative approach helps gain profound understanding of the inhibitors of E-Commerce in Saudi Arabia. The data collected for this study is of multiple sources and targets. The targets are: local Saudi internet users, Saudi consumers in USA and local Saudi retailers. Due to the lack of reach to Saudi retailers and local

consumers, data from a recent study is used [6]. Furthermore, 10 Saudi citizens in the United States are interviewed with similar consumer questions from the previous research along with additional 2 questions related to mobile E-Commerce usage and social media involvement in their E-Commerce practice. Table 1, 2 and 3 show the questions and answer options for local Saudi consumers, local retailers and Saudis in USA consumers respectively.

Table 1: Questions and answer options for local Saudi consumers [6]

<b>“What factors inhibit or discourage you from buying online from e-retailers in Saudi Arabia?”</b>	<b>“What would enable you to buy online from e-retailers in Saudi Arabia?”</b>
‘Lack of physical inspection’	‘Physical shop as well as online shop’
‘Lack of clear regulations and legislation’	‘Government supervision and control’
‘Lack of online purchase experience’	‘Competitive prices’
‘Don't trust that personal info will remain private’	‘Trustworthy and secure online payment options’
‘Do not know e-retailers in Saudi Arabia’	‘Owning a house mailbox’
‘E-retailers are not trusted in terms of mailing products in quality same as specified’	‘Well-designed retailer websites’
‘Lack of mailbox for home’	‘Easy access and fast Internet’
‘Uncomfortable paying online using credit cards’	‘Provision of educational programs’
‘Lack of English language understanding’	‘Local banks make owning credit cards easier’
‘Difficult access to the Internet and slow speed’	

## 4 Results and Discussion

The results from AlGhamdi, Drew and Alhussain research show both anticipated and unanticipated results [6]. Low percentage in the results could indicate more findings. For example, the percentage to the discouraging factor for

retailers of “*Delivery issues*” is unexpectedly low (10.8%) whereas many researchers concluded that this factor is a crucial inhibitor for retailers [8], [10]. However, this result is consistent with researches from consumer perspective [13] as delivery systems are not major obstacle to retailers as it is to consumers. Table 4 shows the results for consumers indicating that the top inhibitor for consumers to accept E-Commerce is physical inspection (53.8% as an inhibitor and 62.4% as a motive) slightly higher than the expected government regulations (52.4% as an inhibitor and 52.6% as a motive). This might be due to the culture of Saudis who prefer to physically inspect the item before purchase to avoid buying defected or wrong item and/or the lack of trust to sellers.

Table 2: Questions and answer options for local Saudi retailers [6]

<b>“What factors inhibit or discourage your company from implementing an online system to sell on the Internet?”</b>	<b>“What factors help or encourage your company to implement an online system to sell on the Internet?”</b>
‘Habit/Culture of people to buy is not encouraging’	‘Trustworthy and secure online payment options’
‘Lack of clear legislations and rules of e-commerce in the KSA’	‘Government support and assistance for e-commerce’
‘Lack of e-commerce experience’	‘Develop strong ICT infrastructure’
‘Products are not suitable to be sold online’	‘Educational programs and building awareness on e-commerce’
‘Poor ICT infrastructure’	‘Provision of sample e-commerce software to trial’
‘Lack of online payment options help to build trust’	
‘Resistance to change’	
‘We do not trust online sales’	
‘Delivery issues’	
‘Setup cost’	
‘Cannot offer competitive advantage’	
‘Not profitable’	

Table 3: Additional questions and answer options for Saudis in USA consumers

How often do you use your mobile to purchase online?	Does social media encourages your decision to buy online?
Always	Definitely yes
Most of the time	Probably yes
Sometimes	Uncertain
Rarely	Probably no
Never	Definitely no

Table 4: Results for positive and negative factors for consumers [6]

Inhibitors	%	Motives	%
'Lack of physical inspection'	53.8	'Physical shop as well as online shop'	62.4
'Lack of clear regulations and legislation'	52.4	'Government supervision and control'	52.6
'Lack of online purchase experience'	44.7	'Competitive prices'	50.0
'Don't trust that personal info will remain private'	41.0	'Trustworthy and secure online payment options'	41.5
'Do not know e-retailers in Saudi Arabia'	36.6	'Owning a house mailbox'	36.2
'E-retailers are not trusted in terms of mailing products in quality same as specified'	33.4	'Well-designed retailer websites'	33.8
'Lack of mailbox for home'	31.8	'Easy access and fast Internet'	32.6
'Uncomfortable paying online using credit cards'	26.3	'Provision of educational programs'	29.0
'Lack of English language understanding'	21.9	'Local banks make owning credit cards easier'	20.6
'Difficult access to the Internet and slow speed'	7.5		

Price also has a role to enable adoption of E-Commerce in Saudi Arabia as it is ranked third with 50%. This should be higher compared to other countries where online prices are likely to be lower than store prices as a general knowledge. Perhaps the reason is the cost of E-Commerce to vendors in Saudi Arabia is higher [11]. Top consumer inhibitors that can be enabled by awareness efforts are related to the culture of consumers like the necessity of physically inspecting items,

getting used to shop online and exposure of online retailers. Social media could play a significant role in this aspect since the penetration and usage is high [13], [14], [16]. By involving social media, companies, governments and other consumers could help increase awareness, diminish security and privacy fear and collaborate in proposing solutions for their issues. Moreover, trust issues facing vendors could be reduced by engaging with customers directly through social media. Table 5 shows results for positive and negative factors for retailers.

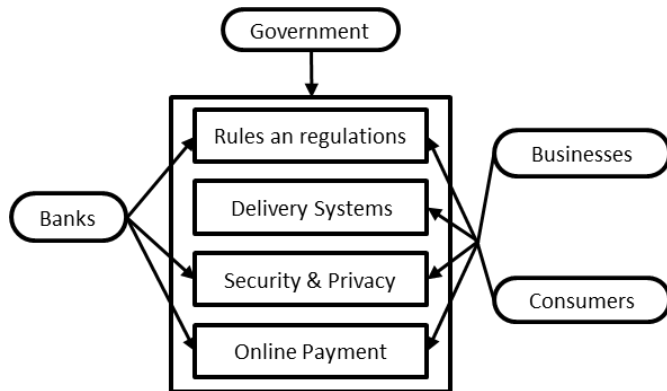
Table 5: Results for positive and negative factors for retailers [6]

Inhibitors	%	Motives	%
'Habit/Culture of people to buy is not encouraging'	42.6	'Trustworthy and secure online payment options'	58.1
'Lack of clear legislations and rules of e-commerce in the KSA'	35.8	'Government support and assistance for e-commerce'	53.1
'Lack of e-commerce experience'	35.8	'Develop strong ICT infrastructure'	39.9
'Products are not suitable to be sold online'	25.0	'Educational programs and building awareness on e-commerce'	31.1
'Poor ICT infrastructure'	22.4	'Provision of sample e-commerce software to trial'	25.7
'Lack of online payment options help to build trust'	20.9		
'Resistance to change'	16.9		
'We do not trust online sales'	12.8		
'Delivery issues'	10.8		
'Setup cost'	10.1		
'Cannot offer competitive advantage'	7.4		
'Not profitable'	8.1		

Online payment methods is ranked 6<sup>th</sup> with nearly 21% as an inhibitor for retailers, but it is a strongly requested motivator, ranked 1<sup>st</sup> with about 58% for retailers to adopt E-Commerce. This complies with other research that online payment is an extremely significant issue for both retailers and consumers [3]–[6], [10], [13]. Furthermore, government regulation of E-Commerce is another substantial issue, not only for retailers

and consumers, but for banks and perhaps delivery systems as well. Culture of Saudis insisting on physical inspection ranked as the top inhibitor for retailers, which underlines the essentiality of awareness. Perhaps the involvement of government and institutions would increase such consciousness [4], [13].

For exploration purposes, a decision was made to minimize the inhibitors in order to conduct further research on most confirmed major factors for each perspective. For consumers, it is found that online payment methods, delivery system, trust (security, privacy and vendor trust) and lack of regulations are the primary inhibitors to accept E-Commerce in Saudi Arabia [6], [8]. As for retailers, online payment methods, security & privacy, lack of regulations and E-Commerce systems integration are the most discouraging factors. System integration involves financial, inventory and banking systems. The lack for skilled ICT professionals also plays a role. Obviously, there are shared inhibitors for both, which is related to third parties like government and banks. Figure 1 illustrates the relationship of inhibitors and key players.



Figuer 1: Relationships between inhibitors and key players

For responses gathered from Saudis in USA, it is assumed that the only overlap is in security and privacy to a limited extent. This is because they now live in a developed country and issues such as payment methods and delivery systems are minimal. However, the added questions related to mobile usage and social media provided interesting results. Table 6 shows results we surveyed for mobile and social media.

Table 6: Results for mobile and social media

How often do you use your mobile to purchase online?	%	Does social media encourages your decision to buy online?	%
Always	0	Definitely yes	60
Most of the time	10	Probably yes	20
Sometimes	60	Uncertain	10
Rarely	20	Probably no	00
Never	10	Definitely no	10

Many Saudis in USA are encouraged by social media to buy online. While purchasing online using mobile is moderate. Since the culture, despite of the environment, of Saudis in USA is similar with local Saudis, the results could encourage retailers to utilize mobiles and social media as channels of marketing as well as increase awareness of E-Commerce. Government and institutions could also use social media to publicly increase awareness.

## 5 Suggested Framework

Based on the results of this study and previous works, we conclude that the main inhibitors of accepting and implementing E-Commerce in Saudi Arabia that affects both retailers and consumers are:

- Secure Online Payment Methods
- Government regulations
- Delivery Systems
- E-Commerce Awareness

### 5.1 Secure Online Payment Methods

It is obvious that credit cards are the most convenient method of payment for conduction online transactions especially in developed countries. It is easy to obtain and preferred by both merchants and consumers due to ease of use and ability to track transactions. However, there are many inhibitors in Saudi Arabia preventing individuals from seeking or obtaining credit cards. Some of the main factors are cultural and/or religious reasons, the concerns of privacy and security, the eligibility to have a card issued from banks and avoiding paying fees and interests. Other secure payment methods do exist in Saudi Arabia such as PayPal and SADAD. PayPal is a globally recognized secure online payment method, while SADAD is a local secure payment method targeting large companies for bill payments. PayPal can be a mediator between customers, banks and retailers with excellent features such as consumer protections. PayPal holds merchant's payments for a period of time in case there are complaints. It also facilitates the ability to refund consumers in case they are not satisfied. A problem with PayPal in Saudi Arabia is that it only accepts credit cards or wired deposit to PayPal balance and not connecting local bank's account.

Saudis tend to avoid the use of credit cards due to the interests, which is forbidden by Islam. There have been several attempts by banks to offer Islamic credit cards. However, such attempts are not sufficient for broader use in E-Commerce. The reasons behind that are the high fees and requirements. Most banks require minimum amounts to be deposited as well as a regular monthly direct deposit, like salaries, in order to get a credit card. Yet, a research by Almousa stated that the majority of internet users in Saudi Arabia who are ready to buy online, more experienced and spend more time online, are residents aged between 18-35 who are either dependents or students [7]. This segment of the Saudi internet users are the most appealing to buy online and should not only be targeted by retailers, but also by banks as well. Most of them prefer prepaid credit or debit cards as the best solutions for online payment. Unfortunately, only a few

banks offer such cards with very poor customer service and some of them with hard to achieve requirements. Banks should target young Saudis by offering them easy to get prepaid credit cards. In addition to prepaid cards that can be linked to PayPal, banks should also work on allowing their customers to connect their PayPal accounts to their debit accounts. Another issue with banks is that they are not cooperative in disputing charges made on their cards. Consumers must file a complaint and pay a fee with a long waiting period to get their money back. This could be one of the inhibitors for some consumers to use their prepaid/credit card for online purchases. Up to date, banks offer online merchant accounts with unfeasible rates, which discourage retailers to use local payment systems with regular ATM cards. SADAD is a billing system connected to local banks and large vendors like utility providers. The list of providers is increasing, but growth is not complying with the demand for E-Commerce growth. In addition, some companies complain that the fees are not feasible to participate. Unlike PayPal, SADAD is not offered to individuals to accept online payments.

## 5.2 Government regulations

The majority of research conducted to study E-Commerce in Saudi Arabia share similar results that the lack of government regulations is vital for the acceptance and implementation of E-Commerce in Saudi Arabia. There are no E-Commerce rules or regulations in Saudi Arabia to date. However, there is a government consumer protection agency that is not actively supportive. Consumers do not trust that this agency can protect them if they complain regarding offline transactions. Therefore, they cannot trust the agency for online protection. The significance of having such regulations for both retailers and consumer is crucial for conflict resolutions, online business practice and consumer protection for transactions conducted online. Additionally, new regulations for individual online business licensing are needed since current rules insist on renting an office in a merchant location. Many individuals try to sell self-made items, like clothes or art works, online using a website and accepting orders by phone calls or emails. They wait for direct deposit payments in scanned proof and contact the buyer to meet in person for delivery. Such individuals face trust issues because they are not licensed. Buyers are afraid that the online seller is not trustworthy or there is no place to file complaints if necessary.

Since the government plays a key role in online privacy and security regulations, both consumers and retailers are affected by regulations. Retailers should secure their transactions and consumers also need to secure their computers. The government involvement in online security and privacy is also very weak. Victims of identity theft struggle to complain and to resolve their issues. The government should establish E-Commerce rules and regulations for E-Commerce transactions as well as licensing for individuals. It should also play a more productive role in resolving both consumer and retailer issues. Government agencies should be more involved in helping

researchers to study this aspect by providing statistical information to assist in quantitative research.

## 5.3 Delivery Systems

The delivery system in Saudi Arabia mainly depends on P.O. Boxes rather than on-street addresses. In Saudi Arabia, mail is mostly delivered to mail boxes in post offices. Delivery issues are not just related to E-Commerce, but also to other services like pizza delivery. The main way to get items delivered to your door is to instruct drivers with landmarks. A physical address system called "Wasel" is launched in 2005 by the local Saudi Post, which is government owned, to set physical addresses. The service is growing slowly because individuals must request it first by themselves. Moreover, only a few major cities is covered and limited subscribers have been adopted. Other commercial delivery systems in Saudi Arabia, like FedEx, UPS, DHL and an Arabic company called Aramex, exist and are used in local and international delivery. Unlike the way those companies deliver in other countries, the customer must provide a phone number to be contacted for delivery or pick up. The Saudi Postal Services and local commercial delivery companies should adopt a system that can be easily integrated into merchants' systems for goods delivery. For now, a temporary solution employing Google geocoding and GPS could be sufficient. Consumers could click on the map in merchant's website to set their home locations and it will be added to the purchase form. Retailer can then use GPS, or Google Maps App, to drive to the location. This might not be perfect, but needs a closer investigation by researchers. An online service called enwani.com provides such solution [17].

## 5.4 E-Commerce Awareness

Since one of the major inhibitors for both consumers and retailers is the need for physical inspection of items as a cultural factor, awareness of the benefits of E-Commerce is crucial. Before promoting E-Commerce, its benefits should be appealing to consumers. Item showcasing, website and purchasing process user experience, prices and delivery should be good enough for online consumers to consider. Accordingly, merchants should put more effort on creating clear item description with various images and clear specifications on their websites. They should also eliminate other costs, like marketing, store rent and manpower to reduce the prices. This could be done by starting with providing online only goods, which should not have extra costs like store, and set lower prices to test consumer acceptance. Price could be further lowered by offering warehouse pick up with physical inspection to increase the adoption to buy. To increase the awareness, social media can be utilized as it is significantly growing in Saudi Arabia and users might help sharing E-Commerce awareness campaigns [13], [14], [16]. According to a report by Yazeed Altaweel published on Discover Digital Arabia website, 64% of online stores use social media to promote their products and services [18]. Such campaigns should be collaborative by government, businesses and even individuals to spread the word. In addition to social

media, other trusted media sources like TV and street signs could be helpful. Not only convenience should be promoted, economic and cultural benefits should be explained to increase public participation. The success of E-Commerce awareness rely on other factors like easy payment methods, clear regulations, better delivery systems and the extent of business participation, where government can play a significant role.

## 6 Conclusions

This paper is conducted to determine the most significant inhibitors of the acceptance and implementation of E-Commerce in Saudi Arabia for both consumers and retailers in order to conduct further qualitative research. The study also proposes a framework that can be used in further research in compliance to data collected based on achieved analysis in this research. The most common inhibitors resulted from our study are: (1) Deficiency of government involvement with rules and regulations governing E-Commerce transactions, consumer protection, online business licensing and resolving security and privacy issues. (2) Secure online payment methods that both retailers and consumers can rely on in a way that increases the acceptance and implementation of E-Commerce. (3) Delivery systems that is not applicable to encourage the delivery of goods from retailers to consumers. (4) E-Commerce awareness of the economic and cultural benefits to the country.

Major implications of the study are the factors that affect both consumers and retailers which are related to the same key players. E-Commerce government rules and regulations apparently are the most significant inhibitors to E-Commerce in Saudi Arabia to consumers, retailers and sometimes to banks. Similarly, secure online payment methods affect both consumers and retailers. Delivery systems, on the other hand, affect consumers more than retailers. A shared factor by all key players is the E-Commerce awareness, which needs to be improved by all parties. Another implication consideration is the role of mobile and social media in E-Commerce. However, the role of social media is more adopted in encouraging online shopping than mobiles. In addition, social media, as proposed in this research, could significantly assist in increasing E-Commerce awareness in Saudi Arabia.

In conclusion, the findings of this paper complies with other works when investigate the most influencing inhibitors and motivators of accepting and implementing E-Commerce in Saudi Arabia. In addition, this study proposes other open opportunities for further research.

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