Mobile Commerce Acceptance: Contemporary Perspectives for the Egyptian Market

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Abstract

The aim of this research paper is to empirically evaluate the current conduction of Mobile commerce in Egypt in order to propose a strategic developmental approach for its wide scale utilization in Egypt, which can be considered as an added-value act towards reform, especially during Egypt's current transitional period. The study discusses significant implications for marketers, vendors and the Egyptian Government. In addition to presenting the important theoretical and practical contributions, this study also recommends directions for future related research. By specifically examining the Egyptian consumer, this study is among the first of its kind to empirically examine mobile commerce utilization in Egypt. Thus, it expands the body of knowledge in the field, especially that M-commerce is a new technological frontier and is an attractive area for research due to its relative novelty, rapid growth, and wide potential applications around the world.

Keywords

Egypt, Mobile Commerce

I. Introduction

The evolution of Information and Communications Technology (ICT) has affected the way methods through which businesses are managed both internally and externally by creating new goods, services, delivery channels and tools by which an organization can enhance relationships with its customers [1] consequently, it evokes both the concept and practice of mobile commerce (m-commerce). A successful presence of m-commerce through mobile phones has helped create a low cost and high efficiency for product and service sales through a more dynamic and interactive venue of opportunities, where the world becomes the marketplace [2].

Mobile Commerce (M-Commerce) refers to the buying and selling of goods and services through wireless handheld devices such as cellular phones and personal digital assistants, and it has become the latest trend to do business in developed countries [3]. M-commerce has become the latest trend instead of electronic commerce as it allows faster access, greater opportunities and more powerful applications for its users [4]. It has been found that mobile commerce applications had unique benefits due to the application-specific need of targeting a spectrum of different user needs [5]. As previously defined, m-commerce is closely related to e-commerce since the service offered in both types are handled electronically by computer-mediated networks and accessible via telecommunication networks, the only difference is that in m-commerce the telecommunication networks are accessed through mobile electronic devices. Accordingly, there are two different paradigms covering the relationship of m-commerce and e-commerce [6]. The first paradigm classifies m-commerce as an extension of e-commerce; the second paradigm regards m-commerce as an independent business field and consequently as an alternative mechanism to e-commerce [7].

The approach adopted at this research paper is the former approach that emphasizes that m-commerce as an independent business field and consequently as an alternative mechanism to e-commerce in fulfill the objective of this study.

II. Research Statement

Considering the population distribution in Egypt, as about 10% of the population belong to the 55 years or higher age group, while 67% belongs to the 35 years or younger age group, and due to the fact that Egypt is among the four largest markets in the Arab world, the researcher argues that utilizing Mobile commerce in Egypt can be a promising conduction during the current developmental period in Egypt.

III. Research Objective

The objective of this research paper is to:
1. Empirically evaluate the current conduction of Mobile commerce in Egypt;
2. Evaluate its acceptance among different Egyptian consumers in order to propose a strategic developmental approach for its wide scale utilization in Egypt, which can be considered as an added-value act towards reform, especially during Egypt’s current transitional period.

III. Research Questions and Hypotheses

1. Whish age group among Egyptian Consumers is interested in utilizing mobile commerce?
2. Does previous experience regarding mobile commerce affects Egyptian’s consumer acceptance to it?
3. Does Egyptian consumer’s educational background affects Egyptian’s consumer acceptance to it?

Furthermore, this study hypotheses the following:
H1: On-line satisfaction affects Egyptian consumer’s acceptance to mobile commerce.
H2: On-line interactivity affects Egyptian consumer’s acceptance to mobile commerce.
H3: Online trust affects Egyptian consumer’s acceptance to mobile commerce.
H4: Legislative framework affects Egyptian consumer’s acceptance to mobile commerce.

IV. Mobile Commerce Adoption Challenges

It is worth mentioning that the markets in most developing countries have not always been successful in adopting technologies [8]. Hence studies to unveil the reasons for the lack of acceptance are highly needed nowadays. Researchers and practitioners, meanwhile, have agreed that there are still uncertainties in the significance of the mobile commerce among consumers in the developing countries. Therefore, its benefits for these countries
are not fully realized [9]. The following sections will present the m-commerce challenges. Numerous studies [10] have been questing for understanding the intricate driving variables and challenges underlying m-commerce acceptance. Among these challenges are: intangibility, on-line security, on-line trust, on-line satisfaction, and on-line interactivity [11].

Intangibility is another challenge to mobile commerce acceptance for two major reasons: First, it increases the intangibility of physical products. Many Egyptian consumers are resistant to mobile commerce because it does not provide them with physical cues about a given product [12]. Second, the on-line setting is perceived as more intangible than traditional channels; in addition, many previous studies highlighted those consumers, who are unable to physically examine an object when buying on-line, are more concerned that the item may not look, or function as expected [13].

In line with the previous argument, on-line security has been found to be one of the major challenges to a large scale acceptance of mobile commerce [14] in addition to the absence of strong regulations and guidelines that ensure the on-line security for consumers [15]. Some scholars have perceived on-line security as maintaining the security of financial information such as credit card information or on-line account passwords [16]. Further, it is argued that an on-line transaction is secure if the information originated from the right party and reached the right entity without being observed, changed or destroyed during the transition process and storage [17]. Kurt and Hacioglu [18] argued that customers perceived on-line security as an ethical issue and expected on-line vendors to guarantee the security of sensitive information, which they obtained. Other research studies argued that the transaction safety and security are the most important risks that were faced during e-commerce adoption [19]. The majority of previous research has been interested in providing a better understanding of customers’ perceived on-line security concerns. Some of these risks include addressing information security and privacy concerns among the on-line consumers [20], which if not properly addressed could hinder mobile commerce growth.

Other related research papers on mobile commerce assurance and adoption have highlighted the issue of on-line trust in mobile commerce, concluding that the security of the Internet for financial transactions poses one of the biggest challenges to the success of mobile commerce [21]. In this regard, some researchers have identified the obstacles to forge on-line trust, which include the following three major aspects [22]:

First, technical, which results in the development of inconsistent infrastructure of certification policies;

Second, legal, which emerges due to the availability of different or contradicting legislative frameworks that govern the adaption of mobile commerce practices across countries; and Third, the management process of on-line transactions [23].

A further concept, which is related to the latter argument in terms of customers’ on-line satisfaction and their judgment of perceived value, tackles the idea of their on-line interactivity in relation to the utilization of mobile commerce [24].

The on-line purchasing involves different forms of interactivity than the off-line because customers cannot inspect potential purchases. Therefore, they may perceive a high level of purchase risk stemming from the differences between expectations regarding perceived performance and reality [25]. The most recent mobile commerce related research themes and on-line interactivity, tackled the concept of co-creation of value processes [26]. It reflects the premise that value is not only created exclusively by the firm, but through the on-line interactions between and the joint activities carried out by different actors, including customers, too [27].

V. Mobile Commerce in The Arab World And Egypt

The Arab World comprises 22 countries and territories of the Arab League (AL). It is an area that stretches from the Atlantic Ocean in the west to the Arabian Sea in the east, and from the Mediterranean Sea in the north to the Horn of Africa and the Indian Ocean in the southeast [28]. It has a combined population of around 422 million people, with over half of its population under 25 years of age. The Arab countries are Algeria, Bahrain, Comoros Islands, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, the Sultanate of Oman, Palestine, Qatar, Saudi Arabia, Somalia, The Sudan, Syria, Tunisia, the United Arab Emirates (UAE) and Yemen [29].

The main challenges that modern organizations are facing in developing countries nowadays with regards to implementing the mobile commerce applications are the factors that affect the level of usability and security of mobile applications [30]. Attracting on-line consumers to purchase on-line through mobile commerce applications is not an easy task and many organizations in the developing countries are facing obstacles to get advantages from the acceptance of mobile commerce, and enhancing the trust of customers to increase on-line sales.

Mobile commerce requires a smart phone, Smart phone penetration in the Arab World is one of the highest globally with the UAE and KSA as the number one and three smartphone penetration nations in the world. This is helped largely by the GCC countries were a person, on average, owns 2.9 smartphones. The following section of this paper will present some of the m-commerce trends in the region, including smartphone penetration rates and top performing m-commerce verticals, mobile banking trends, and demographics of mobile payment users [31]. The following table shows smart phone penetration in the Arab world:

<table>
<thead>
<tr>
<th>Arab Country</th>
<th>Smart Phone Penetration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egypt</td>
<td>26%</td>
</tr>
<tr>
<td>Kingdom of Saudi Arabia (KSA)</td>
<td>73%</td>
</tr>
<tr>
<td>United Arab Emirates (UAE)</td>
<td>74%</td>
</tr>
<tr>
<td>Kuwait</td>
<td>26%</td>
</tr>
</tbody>
</table>

The demographics for smart phone penetration in the Arab world shows that 18 to 26 year olds make up the largest demographic group of mobile payment users with 39% of the market. This age group is expected to reach $2.45 trillion in transactions worldwide by 2015. The next largest group is the 27 to 39 year olds with 31% of the market, followed by 40 to 61 year olds with 26%, and 62 and older with 3% of the market [32]. Furthermore, the following table shows mobile spending by categories in Egypt.

Mobile applications, electronics, and books and airline tickets are the four most purchased categories through mobile commerce in Egypt; while events, sports and movies are the least purchased products or items via mobile commerce. In Egypt, consumers have a preference to buy products either in the form of goods or...
services from the stores more than on-line as they prefer face-to-face interaction instead of screen-to-face interaction [33]. The reason behind this point is due to the sensitivity of the Egyptian consumer towards the feel of risk and uncertainty avoidance [34] towards on-line buying. In fact, the latter point reflects one challenge facing the diffusion of the mobile commerce in Egypt; and further reflects the importance of perceived behavioral control [35] as critical component of the mobile commerce. Moreover, store shopping is part of Egyptians’ socialization process, which is characterized by collectivism rather than individualism [36]. In general, 36% of consumers using m-commerce sites to save items in their shopping cart for use later at a brick-and-mortar store. People in the Arab World transact on mobiles more than the global average. 41% of smartphone users in the Arab World transact online, while only 21.3% of global smartphone users transact online [37].

Furthermore, HoFstede’s uncertainty avoidance relates to the degree of anxiety the society members feel in uncertain or unknown situations; high uncertainty avoidance scoring nations try to avoid ambiguous situations whenever possible. On the other hand, low uncertainty avoidance nations enjoy free thinking and values differences [38]. According to HoFstede’s model, Egypt ranks high in uncertainty avoidance, which means that the Egyptians try to avoid uncertain or ambiguous situations [39] a matter which may act as a barrier towards mobile commerce acceptance in case Egyptian consumers are not certain about it.

Frost, Goode and Hart [40] explored whether collectivist and individualistic users exhibit different e-commerce loyalty and purchase intentions. Results have shown that on-line shoppers are more individualistic than those, who have not shopped on-line, while individualism and collectivism do not influence on-line loyalty. One can argue that Frost’s results [41] provided new evidence that off-line shoppers are more collectivistic than on-line shoppers are. This is a matter that may have a further implication if one will relate it to social media that evoked a new form of social collective interactivity worldwide.

Previous research showed that cultural values influence the typical ways in which communications artifacts and other technologies are used within a society [42]. Individualism/collectivism as defined by is the degree to which people in a country have learned to act as individuals rather than as members of cohesive groups: from collectivist to individualist. The individualism dimension refers to the extent to which individual self-interest is prioritized over the concerns of the group [43]. It anticipates fundamental issues about an individual’s motivation by contrast collectivist cultures are characterized by trust and loyalty as evidenced by the appearance of strong/close groups. The two extremes of individualism versus collectivism can be highlighted in the contrast between the “me” versus the “we” societies [44].

In Hofstede’s classification, the Arab countries scored 38 out of a possible score of 100. They were rated to have a more collective than individualistic culture. In such countries, the people are more dependent on groups as well as on power figures than on individuals while making their decisions including the purchasing decisions [45], which can be argued as a factors that directly or indirectly influence mobile commerce purchasing. Empirically testing the influence of cultural attributes on mobile acceptance adoption does not fit within the scope of this study.

VI. Research Methodology
The survey as a research strategy is commonly used in business and management research [46]. Saunders et al., states that data collected by a survey strategy can be used to suggest possible relationships and give the researcher a more control over the research. Surveys often involve the administration of a questionnaire, which provides a rich opportunity to collect a large quantity of data in an economic way [47].

The survey method allows the studying of a large population quickly and in a cost-effective format [48]. It has been used successfully in business research to test hypotheses, develop measurement scales, and build theoretical models [49].

Further, the research will apply the questionnaire technique, which is a common feature of survey strategy [50]. A questionnaire is “a data collection technique in which each person is asked to respond to the same set of questions in a predetermined order” [51] (Saunders et al., 2012: 679).

Because a questionnaire aims at generalizing conclusions, the construction of a questionnaire is very significant and crucial [52].

Regarding the scaling techniques adopted in the present study, the major scale adopted at the questionnaire is the Likert Scale, which was applied because it was the widely used one in marketing research as it meets Likert’s rules for construction and testing [53], and it is the most common scale in attitude research [54].

Regarding the research variables, which will be statistically analyzed, this study has integrated the nominal, ordinal and interval variables. The nominal variables indicate that each value is a distinct category and serves as a label. However, the presented categories such as gender, nationality, religion, race, type of business and others cannot be ranked [55]. The ordinal is the inter-mediate level of measurement, whereas the variables are ranked according to a criteria such as education, social class and others. For example, although the level of education or social classes are different, it is not possible to mathematically measure these distances [56]. The interval variable refers to a presented question with a meaningful and measurable distance between values such as age and income. But, the major difference between the interval and ordinal is the distance between values that can be measured or quantified [57].

VII. Pilot Testing
Before distributing the questionnaire among the respondents and starting the data collecting process, the questionnaire should be pilot tested to refine it and avoid any problems that may occur for the respondents in answering the questions. A pilot pretesting refers to testing the questionnaire on a small sample of respondents so that potential problems in answering the questions and of data recording will be eliminated [58]. In addition, the preliminary analysis for the pilot test will examine whether the collated data will enable the research’s questions be answered [59].

The major variations of the research population in terms of gender and age group will be included along with the level of experience in purchasing on-line. The minimum number for a pilot study is ten respondents, and for very large surveys the number of persons ranges between 100 and 200 [60]. This study will include 50 respondents for the pilot study.

Accordingly, in the present study a total of 50 respondents will participate in the pretesting, which covers the age categories of the research: 21–29, 30–39; 40–49; 50 and above. A questionnaire was given to each respondent. The majority of respondents reported that the questionnaire was easy to understand and required only 20 or 25 minutes to be completed. Additionally, the majority of
respondents validated the content of the questionnaire and clarity of instructions.

Furthermore, the objective of the pilot study was to confirm the reliability of the variables. According to Saunders et al. [61], reliability refers to the extent to which the questionnaire will yield consistent findings. In other words, it indicates the extent to which a measure is unbiased and ensures consistent measurement across time and across the items in the questionnaire. Cronbach’s Co-efficient Alpha is considered the most popular test of inter-item consistency reliability, which is used for multi-point scaled items. It measures directly the extent to which items cohere with their scale [62]. The value of Alpha varies from 0 (not correlated) to 1 (totally correlated). The higher the co-efficient, the better the measure. The commonly accepted lower limit for Alpha is 0.70. Sachdeva [65] stresses that a value greater than 0.70 is regarded as a satisfactory level of internal consistency. For this study, therefore, the acceptable measure is 0.70. The findings obtained from the pilot study verified an acceptable level of reliability as it showed 0.891, which is higher than 0.70. Table (1.3) illustrates the following:

<table>
<thead>
<tr>
<th>Table (1.3): Pilot study Reliability Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpha (All Scales)</td>
</tr>
<tr>
<td>.891</td>
</tr>
</tbody>
</table>

VIII. Sample Size
The overall population of the study’s scope is Egyptians, who have been involved in any mobile commerce activity. The sample size is 150 Egyptian consumers. The major factors for qualifying the research sample are to be Egyptian, who have purchased via mobile at least once, and being educated. Both males and females will be included. Furthermore, according to the Cairo-based Central Agency for Public Mobilization and Statistics (CAPMAS), the total number of females in Egypt is 38,011,400, and the total number of males is 39,763,847 [66]. In this regard, the researcher will attempt to reach a sample size at the primary research that is proportionately given to each gender according to the total number of their presence among Egyptian university students, which is approximately equal to each other.

IX. Sampling Technique
The sampling techniques can be divided into two types: (1) Probability or representative sampling, which entails an equal chance of each case to be selected from the population; (2) non-probability sampling, which means that the probability of each case being selected from the total population is unknown and it is impossible to answer research questions or to address objectives that require statistical inference [67].

The choice between probability and non-probability samples should be based on considerations such as the nature and variability in populations. Since the population in this study involves different categories, which are from 21 till 59 years old which are the age segments that have purchasing power [68]. Therefore, a probability sampling will be more suitable to be used [69].

Based on the above discussion, the sampling technique adopted in this study is the ‘Probability Sampling’, where sampling units are selected by chance (Malhotra, 2010). This technique is associated with the survey research strategy, where results can be generalized to the overall population [70].

X. Data Collection
The questionnaire was distributed among the respondents face-to-face through a self-administered format in public places. Because single cross-sectional design is adopted as each research sample was addressed only once to fill out the questionnaire [71]. After selecting the research samples, their consent has to be obtained. Once each participant approves to be part of the study, the researcher will brief him/her about the study and assure them that all collected data will be kept anonymous and highly confidential.

XI. Statistical Analysis
Generally, statistics are used in quantitative data analysis for two purposes: descriptive through using descriptive analysis; and prediction, using inferential statistics [72]. In the researcher’s attempt to decide whether the statistical analysis adopted will be descriptive or inferential, the differences between them has to be clearly identified. For the Descriptive Statistical Analysis, each variable can be described in a variety of ways such as, frequencies, ranges, means, modes, medians, and standard deviation [73]. On the other hand, through the Inferential Statistical Analysis, the researchers can reach conclusions that extend beyond the data. Accordingly, statistical inference uses the data gathered on a sample population to draw conclusions about the population from which the sample has been selected [74].

In line with the previous differentiation between the two basic statistical analysis types, the present study will adopt the Inferential Statistical Analysis to allow the researcher to draw conclusions and generalize results to the overall population of mobile commerce purchasers in Egypt. Moreover, the descriptive statistical analysis will also be adopted to describe the collected data in terms of frequencies, means, and standard deviation [75].

Moreover, to calculate internal consistency as an approach to ensure reliability, the Cronbach’s Alpha Method will be used [76]. It is important to highlight that the above selected statistical techniques are widely used in marketing research [77].

XII. Data Analysis
The demographics were tested by a group of questions at the end of the questionnaire regarding respondent’s age, gender, educational level and experience. The following discussion assesses the major demographic data collected.

Furthermore, the data analysis was first carried out using descriptive analysis, looking at the frequency of the variables in the demographic data section of the questionnaire by means of frequencies. It can be concluded that the majority of respondents (31.2%) were in the age range of 30-39 years followed by from 21-29 (27%), those between 40 and 49 years old were (22%).

Finally, the 50-above age group constituted only (19.8%) of the respondents and this is justified as this age group is risk-averse and prefers to experience the products from physical stores. Hernández et al. highlighted that lack of IT experience, resistance to change and their insistence on trying out the product before purchase are the principle obstacles that make older consumers more reluctant to shop on-line [78].

Male respondents represented 50.2% of the sample and females represented 49.8%. The education level of respondents was divided into four categories: Doctorate, Master, Bachelor, and Undergraduate levels. The majority of the respondents are BA degree holders (49.7%) followed by undergraduates (28.3%) and (17%) of the sample are master’s degree holders and only (16.5%) are doctorate degree holders. For the experience level with mobile
commerce, it was divided into four levels: once, from 2-3 times, 4-6 times and more than 6 times. The majority of the sample have bought more than 6 times (51%) which reflects that the sample were highly experienced with on-line buying, followed by from 4-6 times (22.3%). From 2-3 times, it is only (14.7%) from the sample. The remaining level is once and it is only (11.8%) from the sample.

It is important to analyze the differences among gender, age, experience and education of the respondents towards intention to adopt mobile commerce. It is realized that the majority of males (69%) and females (70%) has rated strongly agree-agree towards intention to adopt mobile commerce and only (5%) of males and (5%) of females has rated strongly disagree-disagree.

Table (1.4): Sample distribution according to demographic variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Interval</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% of Total</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>21 – 29</td>
<td>27.0</td>
</tr>
<tr>
<td></td>
<td>30 – 39</td>
<td>31.2</td>
</tr>
<tr>
<td></td>
<td>40 – 49</td>
<td>22.0</td>
</tr>
<tr>
<td></td>
<td>50 – above</td>
<td>19.8</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>50.2</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>49.8</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100</td>
</tr>
<tr>
<td>Educational level</td>
<td>Undergraduate</td>
<td>16.8</td>
</tr>
<tr>
<td></td>
<td>BA/BS Degree</td>
<td>49.7</td>
</tr>
<tr>
<td></td>
<td>Master’s Degree</td>
<td>17.0</td>
</tr>
<tr>
<td></td>
<td>Doctorate Degree</td>
<td>16.5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100</td>
</tr>
<tr>
<td>Experience</td>
<td>Once</td>
<td>11.8</td>
</tr>
<tr>
<td></td>
<td>2-3 times</td>
<td>14.7</td>
</tr>
<tr>
<td></td>
<td>4-6 times</td>
<td>22.3</td>
</tr>
<tr>
<td></td>
<td>More than 6 times</td>
<td>51.2</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Moreover, across difference age groups, there are an agreement towards intention to accept mobile commerce. This is realized among age group (31-39), who rated strongly agree-agree towards intention to accept mobile commerce by (74%) followed by age group (21-29) by (71%), followed by age group (40-49) by (67%) and age group (50-above) by (65%) of the respondents. However, the respondents across all age groups that have rated strongly agree-agree towards intention to adopt mobile commerce by (79%) and followed by master’s degree holders by (73%), followed by BA/BS degree holders by (69%) and followed by doctorate degree holders by (58%). However, the respondents across all educational levels have rated strongly disagree-disagree were between (3%-8%) towards intention.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Under-graduate</th>
<th>BA/BS Degree</th>
<th>Master’s Degree</th>
<th>Doctorate Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>50%</td>
<td>56%</td>
<td>57%</td>
<td>44%</td>
</tr>
<tr>
<td>Neutral</td>
<td>16%</td>
<td>27%</td>
<td>24%</td>
<td>34%</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>29%</td>
<td>13%</td>
<td>16%</td>
<td>14%</td>
</tr>
<tr>
<td>Disagree</td>
<td>5%</td>
<td>4%</td>
<td>3%</td>
<td>8%</td>
</tr>
</tbody>
</table>

XIII. Distribution of Dependent Variables

Research results showed the four independent variables and the dependent one. In other words, online satisfaction, online interactivity, online trust, and legislative framework affects the acceptance of mobile commerce by Egyptian consumers. In order to decide whether parametric or non-parametric tests will be used, the researcher needs to test whether a distribution is normal or not [79]. Generally, parametric tests should be used when normality or close approximation to it is assumed. For example, a researcher can superimpose normal curves over histograms. But it would be difficult to determine accurately if the curve deviated more than it would from normality [80]. Accordingly, more objective measurements are needed as to determine whether the obtained distribution as a whole deviates from a normal deviation distribution with the same mean and standard deviation, which can be obtained through the Kolmogorov-Smirnov and Shapiro-Wilk Tests [81]. The Significance level will be presented as P-value. If the results of those tests are non-significant (P > 0.05) then, the distribution of the sample is normal, while it is considered non-normal if the results is significant (P < 0.05) [82]. Accordingly, the K-S and Shapiro-Wilk tests were conducted to check the normality of the distribution of whether mobile commerce is accepted or not. Table (1.6) shows that the distribution deviated from normality (P is 0.0001 which is less than 0.05). To conclude, many parametric tests assume normally distributed scores. Therefore, a non-parametric test is considered as an alternative when there is deviation from normality or close approximation to it [83]. In other words, the distribution of scores of the intention to accept mobile commerce is not normal. Therefore, non-parametric test will be used. This test is used to test the difference between two and more independent variables on a continuous measure [84]. Specifically, the Mann-Whitney U and Kruskal-Wallis will be conducted to test these differences.

XIV. Discussion: Contemporary Perspectives

The results of this empirical research led to explore many challenges and implications that are considered significant contemporary perspectives. The results of this research have revealed that gender, age and experience do not moderate the intention to accept mobile commerce. Accordingly, the Egyptian marketer should develop marketing strategies that integrate genders and age groups and even focus on off-line shoppers as prospect clients. Furthermore, this study gives adequate insight to on-line vendor designers as collecting enough data that suits the would-be consumers is a starting point for designing on-line vendors. The research results strongly recommend that on-line shops should be more inter-active and provide a level of entertainment to...
their consumers as it has been proven that interactivity had a strong effect on mobile commerce acceptance. Therefore, it is recommended that the local on-line vendor designers should consider interactivity, which can be achieved through integrating more options that customize pictures and products to customers’ need. Further, consumers who exhibit a high degree of pleasure while shopping spend longer time visiting the on-line shops and are more likely to choose the same stores for re-purchases [85]. Thus, the on-line designers should ensure that their websites provide joy during mobile commerce purchasing process.

Moreover, the on-line vendors have to introduce new systems that support the image and videos that give comprehensive details about the on-line products to increase customers’ interactivity [86]. It should be noted that increased interactivity boosts customer enjoyment, satisfaction and bolsters intention to purchase [87]. Accordingly, the on-line marketers should develop specific and thematic strategies and campaigns to promote for the least on-line purchased products. Moreover, adopting innovative methods for designing the websites, and conducting regular website assessment are important factors to maintain consumers and attract new ones [88].

The literature has shown that mobile applications, electronics, and books and airline tickets are the most mobile purchased products in Egypt. In this regard, the on-line vendors should pay close attention to the factors that affect Egyptians’ acceptance of mobile commerce now that the results of this study showed to maintain their present on-line consumers.

For more elaboration, the on-line sellers of the most purchased product categories have to ensure the sustainability of their customers’ satisfaction, regularly check that satisfaction and facilitating conditions, and interactivity are well provided, offer a trust mechanism, and degree of ease associated with the use of their websites to their on-line shoppers.

By maintaining their present customers through providing the foresaid factors, the on-line vendors can further ensure the attraction of new segments of potential consumers because Social Influence has proved to be a major catalyst for the Egyptians’ acceptance of mobile commerce, which has been referred to as the impact of others on purchase intentions [89]. Accordingly, the satisfied customers can attract new consumers to on-line selling outlets.

Furthermore, regarding the practical contribution to Egyptian policy-makers such as the Egyptian government, Egypt is a cash-based society and paper transactions are the dominant mode. Payment over the Internet still lacks general acceptance by the Egyptian consumers. The majority of on-line vendors still offers the option of cash upon delivery, which allows consumers to pay when they receive their ordered products. This is considered a good alternative for the Egyptian segments that do not have on-line credit cards.

Moreover, the Egyptian government should start promoting and protecting the rights of on-line consumers through the introduction of a legal system and infrastructure. Recently, the Egyptian Minister of Communications and Information Technology, Khaled Negm, has announced that his ministry is planning to expand Internet penetration from 34 per cent to 50 per cent by the end of 2016 [90] a move that will positively contribute to mobile commerce adoption by Egyptian consumers.

It is worth mentioning that there is an obvious lack of awareness regarding the rights of consumers, who shop online via mobile phones. In the meantime, the local media should launch a comprehensive campaign to spread the mobile commerce benefits among the Egyptians. It has been noticed that the Egyptian media, especially after the January 25th 2011 Revolution, has played a key role in affecting Egyptians’ perceptions and awareness regarding many issues. Therefore, it can be used as a tool to make the Egyptians aware of the benefits mobile commerce. Ad hoc talk shows and specialized TV and Radio programs can be produced for serving this purpose as well.

It has been that obstacles related to the skill level of population and the demand for e-commerce needs to be integrated into a strategic national plan to ensure a comprehensive diffusion of mobile commerce applications.

Furthermore, the Cairo government should encourage people to trust credit card payment and bank transactions and adopt new payment methods. With only seven per cent of the population being banked and only eight million credit and debit cards issued, Egyptian users are challenged when it comes to on-line payments with over 65% relying on alternative payment methods such as pre-paid cards and bill presentment services and a 80% cash-on-delivery to 20% on-line credit card ratio [91]. In fact, although the cash-on-delivery based transactions are convenient payment options for those who do not have credit cards. It should be noted that cash as a payment method has heavily impacted the mobile commerce eco-system [92] because merchants who deal with the cash-on-delivery system as their main payment option, costs can range from $10 to $30 per shipment due to high product returns, re-stocking and re-shelving of undelivered products, cash-handling costs, thefts, and customers abandoning payments on delivery. Furthermore, merchants may wait weeks before they are able to settle their cash-on-delivery funds into their bank accounts [93]. Accordingly, the Egyptian government should develop a strategic plan for credit card adoption as a major payment method.

**XV. Future Research Directions**

Some suggestions can be made for future research directions. This study can be replicated after observing some macro-developments in Egypt in terms of developing infrastructure and new legislation; thus it would be advised to re-evaluate the factors affecting mobile commerce acceptance.

Future research can replicate the study in the Arab World’s largest markets: Saudi Arabia, Kuwait, and United Arab Emirates [94] to reach a comparative conclusions.

**XVI. Research Limitations**

It is worth mentioning that mobile commerce is a new idea in the Egyptian context and e-commerce practices are still informal and not widely spread as mentioned in the literature of this study. Therefore, the research sample was found with difficulty based on the qualifying criteria of the research as data collection was only confined to the Egyptian capital of Cairo, which comprises more than 50% of the on-line buying population [95]. Accordingly, empirical study did not cover other Egyptian governorates in the Nile Delta, Upper Egypt and Alexandria, which have on-line shopping activities [96].

**XVII. Conclusion**

The study discussed contemporary perspectives that integrated significant implications for marketers, vendors and the Egyptian Government, which layout the strategic plan to promote the utilization of mobile commerce in Egypt. By specifically examining the Egyptian consumer, this study is among the first of its kind to
empirically examine mobile commerce utilization in Egypt. Thus, it expands the body of knowledge in the field, especially that M-commerce is a new technological frontier and is an attractive area for research due to its relative novelty, rapid growth, and wide potential applications around the world.

The future is bright for payments in the Arab World with the number of cash-based transactions decreasing year-over-year and the number of convenient consumer payment options developing exponentially. In the next years, there is hope to see a greater shift towards some of the payment options such as mobile payments. It is expected that these new payment methods to have a significant impact on the future of Egypt.

References


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Professor Ibrahim Al Sahouly is an Associate Professor in Marketing. He received his Ph.D. in Marketing from Salford University in Manchester, United Kingdom. He has received his Bachelor’s and Master’s degrees from the School of Business from the American University in Cairo (AUC), in addition to his Graduate Diploma in International Politics from AUC as well. Ibrahim Al Sahouly is an international academic in Egypt and United Kingdom. He has professional and academic scopes in marketing studies. He has eleven years of high quality academic teaching experience for both undergraduate and post graduate studies. In addition, He has many international publications focussing in marketing and has presented many empirical research at international conferences. Among Al Sahouly’s professional affiliations is being an Editorial Board member at two international journals specialized in marketing and management sciences, in addition to some seminars he conducted at Salford Business School in UK. He had also been an External Examiner and Evaluator for post graduate research at German Academic Exchange Service (Deutscher Akademischer Austausch Dienst); in addition to the various professional training sessions he conducted for graduate levels. Furthermore, he has been nominated by UNCTAD, which is an independent United Nations entity to participate in an international project related to e-commerce in Egypt. Ibrahim Al Sahouly taught many courses including Advanced Marketing; Research Methodologies; Global Marketing; Digital Marketing; Advertising and Promotion; Consumer Behavior; Branding: Strategic Marketing; Sales; Marketing Research; Customer Relationship Management; Human Resources Management; Strategic Management; Entrepreneurship and Small Business Management, and supervising Marketing Graduation projects, and MA theses. To contact Professor Ibrahim, you can send an e-mail to: isahouly@msa.edu.eun and Ibrahimh@aucegy.edu