

REVOLUTIONIZING M-COMMERCE

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***Abstract:** The number of people utilizing mobile devices is rising due to advancements in wireless technology, which also accelerates the growth of M-commerce through these devices. Mobile commerce is the new form of e-commerce that uses mobile terminals to perform transactions. Owing to its innate qualities of ubiquity, customization, adaptability, and distribution, mobile commerce offers companies previously unheard-of market potential as well as exceptional productivity and profitability. This paper presents an overview of mobile commerce development by examining the enabling technologies, the impact of mobile commerce on the business world, and the implications for mobile commerce providers. Explore the attitude towards adopting m-commerce in Lebanon.*

***Keywords:** Mobile Commerce, Business enterprises, wireless technology, E-Commerce.*

Introduction:

The term "mobile commerce," or "M-Commerce," describes the exchange of products and services using mobile devices. Due to the exponential growth of smartphones and the widespread availability of high-speed internet, e-commerce has experienced unparalleled expansion, revolutionizing the conventional retail environment. Mobile devices' ease of use and accessibility have completely changed the way customers and organizations communicate, presenting both new opportunities and difficulties.

The push for advancing technology and the pull of public demand for low-cost, high-speed communications and ubiquitous access to information anytime anywhere have revolutionized the telecommunications industry over the past two decades. Internet access and high computing power in wireless devices began to pave the way for the introduction of broadband interactive multimedia applications.

Nevertheless, the wireless Web market is still in its infancy, and mobile commerce (m-commerce) is expected to evolve significantly in the future, especially because of the current implementation of 3G systems and the future deployment of 4G systems, inter-connecting a multitude of diverse wireless networks, such as WBAN, WPAN, WLAN, and WMAN.

Because of its unique built-in features, which include ubiquity, personalization, flexibility, and distribution, m-commerce has several significant benefits over its fixed counterparts. Mobile commerce also offers extraordinary business market potential, improved efficiency, and higher fruitfulness. (Regie, 2013).

Mobile commerce is proving to be a formidable opponent. The Internet offers a virtual marketplace where buyers and sellers can interact to exchange products and services. Even though they might live thousands of miles apart, come from different countries, and speak different languages, "E-Commerce" has become the commerce medium of choice in the age of globalization. While e-commerce and mobile commerce are both electronic business transaction processes, they differ in terms of the platforms that allow for mobility. This is because both include commercialization. In actuality, mobile commerce is just e-commerce's progression and extension. Therefore, a definition that focuses on the qualities of both mobile and e-commerce may be possible. (Dr.Rajesh Verna and Yash Sharma, 2023).

Due to advancements in technology, the expansion of the digital economy, and the evolution of the internet from a means of communication and information gathering to a lucrative instrument, e-commerce is becoming more and more significant in Lebanon. According to a report by the United Nations Conference on Trade and Development (UNCTAD), Lebanon's performance in business-to-consumer e-commerce in 2018 was placed 16th out of 39 middle-to-high-income countries and sixth out of 19 Arab nations.

During the coronavirus pandemic, online sales increased consistently and beyond traditional retail stores, providing e-commerce with an unanticipated boost and acceleration. According to Hamada (2021), the COVID-19 pandemic caused a rise in e-commerce in Lebanon due to the quarantine and people's propensity to limit social connection. The technological revolution that gave rise to e-commerce had an impact on Lebanon (M.kibrit, 2023).

Development of M-Commerce:

In the final two decades of the 20th century, mobile phones spread quickly throughout the world, laying the groundwork for a new kind of technology-assisted trade. This new kind of mobile commerce, or m-commerce, was distinguished by innovative, location-based services provided via a range of handheld terminals, surpassing the computer-mediated electronic commerce, or e-commerce, of the 1990s (Dholakia and Dholakia 2003). According to Bradley and Sandoval (2002), Japan's NTT DoCoMo had developed a vast network of m-commerce service providers and users by the year 2000, all of whom were dependent on the I Mode platform of the corporation. Mobile phones that are data-ready and connected to digital

communications networks provide the prerequisites for m-commerce, just as networked PCs and material that could be accessed through a browser did for e-commerce to take off. Mobile phones have been complemented in recent years by various handheld mobile devices including Personal Digital Assistants (PDAs) and upgraded alphanumeric communicators like Blackberry devices. We should expect a more varied range of these mobile gadgets to emerge from the research labs of computer, electronics, and telecommunications companies (Nikhilesh Dholakia, Mark Lehrer, Ruby R Dohalazia and Nirkshetri, 2004).

Lebanese Science Journal, Vol. 22, No. 2, 2021 P a g e | 266 defined as a form of e-commerce conducted over mobile or wireless networks, mobile commerce is defined by Müller and Veerse (2000) as "any transaction with a monetary value that is conducted via a mobile telecommunications network." It may differ significantly from its traditional desktop computer-based precursor in that m-commerce services are accessible on the go through devices (such as smartphones and tablets) with fundamentally different presentation, processing, and interaction modalities compared to a desktop computer (Mylonopoulos et al., 2003; Ngai et al., 2007). Push delivery, context awareness, and location awareness are just a few of the novel and distinctive service capabilities made possible by these kinds of services.

"M-commerce is the combination of mobile devices and business transactions, providing clients with services via a wireless, Internet-enabled device, at any time, and without the need for a computer" (Clarke, 2001). In keeping with earlier definitions of this kind, we shall define mobile commerce in our research as "any financial transaction of goods and services conducted via a Smartphone device," excluding any other portable device. not taking into consideration any other handheld device.

Along with other phenomena that have had a significant impact on people's lives, the mobile revolution has drawn the attention of numerous powerful businesses, making the market of today not just extremely competitive but also the actual arena for the titans of the records and communications industries.

This conflict can be summed up as a three-technology trajectory (Eras) that moves from closed systems (also known as "walled gardens") to open-ended solutions and back again (Panos et al., 2012). The 0.33 era of m-commerce began in 2007 and is characterized by the integration of Apple (iPhone, iPad, iTunes), Google (Android), Microsoft (Windows Smartphone), and other developed tool and platform improvements that managed to seize large audiences in various sorts of closed-ended, mobile applications (m-apps). A new m-commerce ecosystem was sparked by these business models, which made the manufacturer-a-third-party utility distribution popular. This allowed consumers to search for, download, and buy mobile

applications. Because of the massive audience, these m-apps have attracted, larger development companies have sprung up, competing to provide the finest product, which has led to the creation of a broad pool of m-apps that pull in more users. (Lemoine, 2021).

Factors affect the adoption of M-Commerce by Consumers:

The factors listed below affect the adoption of M-Commerce by Consumers:

1- Perceived usefulness:

According to recent studies on M-commerce adoption models, one important component that is frequently utilized to describe customer behavior is perceived usefulness (Hong et al., 2008). The perceived utility of a system is described by Davis (1989) as the degree to which people think that utilizing new technology will improve their work performance. Therefore, a user's intention to accept or implement mobile commerce will depend on how valuable they believe it to be. Perceived utility, which encapsulates the benefits that users see from utilizing mobile commerce, is the main predictor of M-commerce adoption, according to a growing body of empirical research.

2- Perceived ease of use:

The degree to which a person thinks utilizing a specific technology would be effortless is known as the perceived ease of use for a system. The adoption of mobile commerce has taken into account the perceived simplicity of use as a significant aspect.

3- Perceived trust:

Observed The concept of trust plays a crucial role in shaping consumer behavior and determining the success of mobile commerce. In many of the current technology adoption studies, trust is a significant predictor in explaining the adoption of M-commerce. Trust is crucial because it enables customers to get beyond their perceptions of risk and uncertainty.

4- Perceived cost:

A crucial component of M-commerce setup and operation is perceived cost. In contrast to other notions, customers take perceived cost into account when determining whether to use M-commerce. (A.H.M.Saifullah Sadi and Mohamad Fauzan Noordin, 2011).

Challenges in Usability Testing of Mobile Applications:

Examining the usability of mobile applications is made more difficult by the special characteristics of mobile devices and wireless networks, such as mobile context, multimodality, connectivity, small screens, various display resolutions, low processing power and capability, and constrained data entry techniques.

Mobile context:

The term encompasses any data that describes a scenario about the interaction between people, apps, and the external environment. (Dey, Salber, & Abowd, 2001, p. 100).

Connectivity:

One of the most prevalent obstacles to mobile apps is a slow, unstable wireless network connection with low bandwidth (Longoria, 2001). The duration and quality of data downloads for streaming media (such as audio and video streams) are significantly impacted by this issue. Due to user mobility, signal strength and data transmission speed in a wireless network might change at different times and places (Sears & Jacko, 2000). Consequently, usability research needs to address how to handle different network situations.

Small screen size:

The usability of mobile apps can be greatly impacted by the physical limitations of mobile devices, particularly tiny screen sizes (Jones et al., 1999; L. Kim & Albers, 2001). The majority of World Wide Web pages may be aesthetically unappealing, difficult to navigate, or, in the worst situation, entirely unreadable when viewed directly on small mobile devices (Bickmore & Schilit, 1997).

Different display resolutions:

Compared to desktop computers, mobile devices typically support display resolutions of no more than 640 x 480 pixels. The quality of multimedia content seen on a mobile device's screen can suffer from low resolution. Accordingly, usability test findings may vary depending on the display resolution setting on various mobile devices (Jones et al., 1999).

Limited processing capability and power:

Mobile devices' memory and processing capabilities are much less than those of desktop computers. Certain applications, such as three-dimensional city maps for PDAs (Rakkolainen & Vainio, 2001), might not be appropriate for mobile devices if they need a lot of RAM for graphic support or quick processing. Mobile devices have limited processing power, so developers might have to turn off features like dynamic frame movement and high-resolution pictures.

Data entry methods:

It is challenging and demands a certain level of skill to provide input to small devices (Longoria, 2001). Users' efficacy and efficiency are limited by small buttons and labels when entering data, which can slow down input speed and increase errors. Various data-entering techniques can have an impact on the usability study's findings. (Dongsong Zheng and Pushpinder Singh Gill, 2005).

Future Prospects:

A research model that included behavioral intention characteristics that directly affect the adoption of mobile commerce was constructed based on prior literature. Next, in order to confirm the content validity of the suggested model, twenty mobile commerce users—including university professors and professionals in the field of technology—were pre-tested. The completed model was then empirically evaluated to test the hypotheses using a survey questionnaire from 150 respondents using a convenience sample approach. Relevant changes were made based on their comments. The Chandigarh internet and mobile users provided the data. The younger generation has been taken into account when gathering data because they make up the largest group of people who utilize the newest technology, adopting it quickly and having an impact on previous generations as well.

In order to keep up with their increasingly fast-paced lives, consumers today require wireless technology that is smaller, better, faster, and more dependable. This need is met by m-commerce, which enables conventional e-commerce activities to be carried out wirelessly using a smartphone or PDA. The newest trend in the rest of the world is mobile. How mobile consumers choose to embrace this new technology-driven business model will determine the direction of mobile commerce in the future. Given the success of e-commerce, m-commerce has enormous development potential. M-commerce is becoming more sophisticated and widespread (Arshan Bhullar and Pushpinder Sing Gill, 2019).

Conclusion:

The buying and selling of goods over the Internet is commonly referred to as e-commerce, any transaction that is carried out only through electronic means qualifies as e-commerce. The significance that e-commerce and m-commerce play in online retail marketing is growing daily, as is the number of people utilizing these technologies.

throughout the globe, any type of electronic transaction using a mobile phone is considered mobile commerce. The phrase "mobile commerce" refers to conducting business using mobile devices. These days, there are several M-Commerce services and apps that have already been developed and have been quite beneficial to us. Among these are mobile shopping, tickets, file sharing, mobile banking, location maps, and a range of news sources. The defense of e-commerce assets against illegal use, access, change, or destruction is known as e-commerce security.

Upon examination of the gathered information, we learn a few things that were unknown before. All businesses, regardless of size, are aware of digital marketing. They are

aware of how important marketing is to boosting sales of products. Lastly, we may anticipate a significant shift in the e-commerce scene in the near future. The requirements and experiences of the consumers will be taken into consideration for any updates.

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