

# Chapter 1

## The Impact of Emergent Technologies in the Evolutionary Path for M-Commerce

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### **ABSTRACT**

*M-commerce is a fast-growing opportunity and is acting as an innovative lever for achieving the purpose of increasing sales while better interacting with the clients. Simultaneously, several emerging technologies have appeared in the market and promise to change the current m-commerce paradigm. Therefore, this chapter plans to explore a set of new trend technologies that can plan to build a more efficient relation between the consumer and the m-commerce platform. This study conducted surveys with several market players like marketers and IT leaders to understand their point of view, perceive the relevance and impact of these emergent technologies in m-commerce, identify resistance and challenge points to the proposed change, and look how to allow cohabitation between this new e-commerce paradigm and the traditional physical trade. The main novelty of this study is the inclusion of multiple points of view on the evolution of m-commerce which will allow companies and citizens to perceive the impact of emerging technologies in the future of m-commerce.*

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## **INTRODUCTION**

Nowadays, any relevant small or big company has a digital presence, even if most part of cases there isn't a delineated strategy in the business (Razavi et al., 2010). The consumers interact each day more with different forms of digital presence for a business. The companies, on another hand, show their presence in the social networks, threw: digital advertising across multiple platforms; websites, mobile applications and even in gaming solutions. The shopping environment, in a few decades, has moved from physical stores to hybrid solutions that merge physical space with the digital world, creating the new concept of Omnichannel presence (Frazer, 2014).

One strong concern of a company is the overall exposition of the business and product over the Internet. The consumers with a behavior pulled by the trend movements, convenience, the proliferation of portable digital devices (that provide easy and fast access) – are feeling the wealth of the new commerce solutions. So the focus is in: strong, clear and clean presence over all the digital channels. Another relevant aspect is developing innovative approaches for gaining new customers while keeping strong ties to the first time visitor to an m-commerce provider. The loyalty client programs should always be appealing, trendy and effective to maximize its goal: keep a consumer connected to a product, solution or brand.

Currently, there is a new blurring between online (e-commerce), and offline retail as described in (Rogojanu et al., 2018) as we planned to propose in our solution. This new technological framework means a powerful tool that can and should be used. This preliminary study plans to provide a reflection of a possible evolutionary path to all the previous topics that were presented. The proposed solution binds the future physical store and m-commerce in this new era. The introduction of new technologies that will enable a stronger tie with consumers such as: Chatbot with Artificial Intelligence (AI) agents for interacting, improved location based services, Virtual Reality (VR) and Augmented Reality (AR) for creating a new product showroom and improving the loyalty programs with the support of a Blockchain structure – are the key for the proposal. By conducting surveys with several market players such as marketers and IT leaders we will understand their point of view, resistance to the proposed change, the relevance of the new proposed solution and the timetable proposed for their implementation.

The manuscript is organized as follows: Initially, a conceptual analysis of the characteristics and properties of emerging technologies with potential impact on m-commerce is performed, respectively: (i) Location Based Services (LBS); (ii) 5G and Delay Tolerant Networks (DTN); (iii) Bluetooth and Near Field Communications (NFC); (iv) Augmented Reality (AR) and Virtual Reality (VR); (v) Internet of Things (IoT); (vi) blockchain; and (vii) Artificial Intelligence (AI). The adopted methodology and the main results of the study are presented below. After that, some solutions and recommendations are presented in the adoption of these emerging technologies in the context of the m-commerce paradigm. Finally, the conclusions of the work are presented and some indications are given about relevant future works in this field.

## **BACKGROUND**

### **Location Based Services (LBS)**

The geographic position of the consumer is of great relevance to the retail activity, in particular for a conventional store. The crucial elements to LBS have been a two-way wireless data communications link

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