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Usage level and future intent of use of quick response (QR) codes for mobile marketing among college students in Turkey

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Abstract

Quick Response (QR) Codes are becoming a part of our lives. As mobile technologies are booming, QR codes are being used for various purposes, one of which is for mobile marketing. In this study, our goal was to investigate the current use and future intent of use of QR codes in mobile marketing among college students. We surveyed 241 college students in the beginning of 2013. The findings indicate that while more than 80% of students recognized QR codes, only half of them had used QR codes before. Furthermore, while the interest in using QR codes is currently low, the likelihood of using them is slightly higher than the current interest. Therefore, we can simply conclude that we are more likely to see higher adoption levels of QR codes among the traditional-age college students in the future. However, we also believe that mobile marketers need to find ways to promote the use of QR codes, teach how to use them, and increase adoption levels if they want to benefit from this new technology.

Keywords: Quick Response Codes, QR Codes, Mobile Marketing, Consumer Behavior, Mobile Commerce

1. Introduction

As new mobile devices and the supporting technologies are introduced, marketing found a new venue as mobile marketing. Especially, the use of smart phones and other mobile devices are quickly spreading among teenagers and college students. As a result, mobile marketing is attracting more attention day by day. A significant amount of marketing effort is also geared towards the needs of this market segment.

One of the supporting technologies for mobile marketing is quick response (QR) codes. Today, QR codes are used for many different purposes such as making purchases, accessing additional information in the web, giving out discount coupons, and interacting with social media. The use and popularity of QR codes is increasing quickly all around the world (Shin, Jung, Chang, 2012). Since the use of mobile devices is expanding, the companies and organizations that effectively use QR codes might gain a competitive advantage over the ones that are not using QR codes, especially in certain marketing segments such as college students or youngsters. The most common way of using QR codes is via a smartphone. Users install a software program into their smartphones that reads and interprets a quick response code.

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After the software interprets the information in the code, it further completes the necessary action. In the next section, QR codes are explained in detail.

In this study, our goal is to research how well QR codes are known among college students and their intent to use QR codes in the future.

The rest of the paper is organized as follows. In the second section, we provide details on the history and current use of QR codes. The third section summarizes our literature review on the subject. Details of our research are found in section four. The last and fifth section includes our conclusion.

2. Quick Response (QR) Code

QR codes are first developed by a Japan company (Denso Wave Incorporated, 2013) in 1994 to enable tracking of automotive parts. A QR code is actually a form of matrix barcode technology. Like matrix barcodes, it is possible to read information out of it. The advantage of QR codes is that it can store quite an amount of information inside. It is possible to embed text, video, advertisement, personal information, business card information or any type of digital information that can be thought of. Today, new mobile devices enable us to install a piece of software that can read a QR code on a newspaper, magazine, product, advertisement etc. Marketers can also store a web link (uniform resource locater – URL) to QR codes. Using these links, customers are sent to a specific e-content, e-store or any other form of cyber marketing environment. For example, it is possible for a metro commuter, going home after work, to scan a QR code in an advertisement placed inside metro car. After scanning, the commuter is able to read the details of the product advertised and even buy the product on the way to home.

International Standards Organization and International Electrotechnical Commission (ISO/IEC) have published two standards since 2000. The first version (ISO/IEC 18004:2000) was published in 2000 and the second version (ISO/IEC 18004:2006) in 2006 revises the first version.

A sample QR code is below:

Fig 1. 1st generation QR code providing a link to English wikipedia homepage

The storage capacity of a QR code depends on the characteristics of the data stored. For example, it is possible to store more symbols if the stored data is numeric only. The storage capacity of a QR code is presented in table 1.

Table 1 QR Codes Data Capacities

QR Code Data Capacities	
Numeric only	max. 7,089 numbers
Alphanumeric	max. 4,296 numbers and characters
Binary (8 bits)	max. 2,953 bytes
Kanji, full-width Kana(*) (Chinese Language)	max. 1,817 characters

Currently, QR codes are in its third generation. In every generation, the storage capacity of QR codes increased and new features are incorporated such as adding company logo inside the code.