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The Use of QR Code in the Marketing of Music in the Terms of Digitalization

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ABSTRACT

The changes of technology caused to many transformations in communication. This transformation created many new forms in the presentation of products and services. One of the markets which had faced a great change is music thanks to digitalization. Music which was a tangible product transformed to intangible product with the effect of digital music. Music was distributed with records, cassettes and CDs before the digitalization. The new media which was under the effect of digitalization changed also the marketing mix. Producing, distributing, pricing and promoting of music products had a deep change in the new media era. This paper explores the marketing of music products in the new media age. The study focusses on QR code as tool of mobile and digital media and how it works in the marketing of products and services. In the first part of the paper there is a conceptual explanation of QR code and its advantages in marketing. In the second part, there is a research for applications of using QR code in marketing of music. How did music industry mobilize music and how did digital music promote by QR code? What the advantages and disadvantages are and how can this effect the structure of music marketing in the terms of digitalization.

Keywords: Music, QR Code, Marketing, Music Marketing, Digitalization

Definition, Key Features and Emergence of QR Code

Consisting of the first letters of fast responsive words and a special matrix barcode type, QR code technology carries information such as message, text, event calendar, location notification and can be used in many different fields (Yıldırım and Cömertpay, 2016: 193; Polat, 2014: 1). The main purpose of developing QR code was to ensure that scanners easily read and decrypt contents quickly (Aktaş, 2013: 121).

The QR codes developed by Japanese Denso company in 1994 to track production processes in the automotive sector have become two-dimensional barcodes which are widely used today (Akın, 2014: 12). Therefore, the QR code used for labeling and tracking parts used in automobile production has a much more widespread use today (Bilici, 2015: 94). After the successful implementation at Denso, other industries also tried to adopt this technology. Although Denso patented the QR code, it is available worldwide. In 2011, the QR code was first commercialized through the telecommunications industry, and today the QR code has gained great commercial popularity due to its mobile technology. The rise of mobile technology has been the best and fastest tool for success in this fascinating technology (Cata, Patel and Sakaguchi, 2013: 2). It is possible to summarize historical development of the QR code in chronological terms as follows (Pal and Jha, 2017: 67):

- 1988 - The first two-dimensional barcode was developed by the Intermec Corporation.
- 1994 – Masahiro Hara from Denso Wave designed the QR code to track vehicle manufacturing process in automobile industry.
- 1997 - QR code was standardized as AIM (Auto Identification Generator) for use in auto identification industry.
- 1999 - Japan Industrial Standards adopted QR code as standard two-dimensional code. Furthermore, EDI standard process forms of the Japan Automobile Manufacturers Association were introduced as a standard 2D symbol.
- 2000 - QR code was standardized by ISO (International Organization for Standardization), one of the international standards.
- 2004 - Micro QR codes were released and accepted as JIS standard to satisfy the need for small-sized codes.
- 2008 - The IQR codes with large coding capacity but smaller footprint were released. Use of rectangular code modules was also allowed.
- 2010 - The first QR code scanner and reader application software for different smartphone applications were introduced in the United States.
- 2014 - To support the design and structure of QR codes, a new QR code version called Frame QR, which is a combination of drawings and images, was released.

After the successful implementation by Denso, structural volumes of QR codes in the new form increased and they were reshaped as nested codes. As with mathematical clusters, there is also a main code in the form of an enclosing cluster and a contained cluster that is placed inside it. In these two nested clusters, enclosing cluster increases the capacity of cluster that encloses contained cluster. In this way, since there are two nested codes, the capacity of QR code is doubled, thus the content can be made richer (Arslan, 2011: 78-79).

The QR code described as a quick response code is often referred to as square code in Turkish, and the use of codes has increased in the country as the health Ministry officially initiated the use of codes in pharmaceutical industry.

QR codes are one of the lower branches of close communication technology. In terms of general working principle, QR code provides efficient and effective communication by integrating physical processes into the computing world.

In general, contents embedded in various objects with the help of code generator program within QR code consisting of black motifs on white background can provide information to the people who are able to scan code. The code can be routed to any website, and it is possible to send an e-mail or SMS. Thus, while the classic barcode contains data in one direction only, the QR code technology includes horizontal and vertical data that can encode the same amount of data in a smaller area (Klein, 2014: 2). In the following figure, the structure of the QR code can be seen.

Figure 1. *QR Code Structure*

Source: Ching-yin Law & Simon So (2010) "QR Codes in Education", *Journal of Educational Technology Development and Exchange*, Vol 3, No 1, ss. 86.

Production and reading of QR codes are easy for users, and both activities are supported by appropriate software. Software used in the synthesis of QR code can be applied without special programming skills, and thus QR codes are produced quickly and easily. Decoding QR codes is performed with a free software on a camera mobile phone that is used to read the code from a certain distance. The camera is kept in front of the code and activates the appropriate software to decode the scanned code. As shown in Figure 1, the user can access any types of information (text, URL, image, audio, video, etc.) after the code is decoded (Klein, 2014: 2).

Simple to use, the production of QR codes is also very easy and practical. Many websites can generate this code for users for free (Akın, 2014: 13). There are also many free applications to be able to read codes through camera

smartphones. The simple use of these applications has increased the usage of the QR code applications in daily life. With the advancement of barcode technologies, QR codes have gained an increasing use area for information in museums, adding numbers to the phone book on ID cards, easy access to the websites of organizations in posters and banners, the purpose of downloading mobile device applications, reaching any locations via maps, libraries, drug follow-up and matching for security purposes (Akın, 2014: 15).

Usage Characteristics of QR Codes

The fact that QR codes can be placed on web pages and television screens, that they may also be placed on any printable surfaces, perhaps most importantly, that they are compatible with mobile communication technologies have paved way to their use in much various fields (Aktaş, 2014: 93).

QR codes facilitate processes between the physical world and the electronic world, as well as ensure that communication becomes efficient. QR codes generally make data storage forwarding phases efficient, accurate and convenient. QR codes that contain both horizontal and vertical information in a way different from one-dimensional codes are highly data-capable barcodes. Another basic characteristic of QR code that can store 7,089-character numeric data, 4,296 characters non-numerical data, 2,953 bytes (binary 8 bits) and 1,817 characters Japanese Kanji/Kana symbols is the ability to fix the error (Aktaş, 2013: 121). Because QR codes have the ability to read from any angle by their structure, it is not necessary to keep the device flat while attempting to analyze a code formally.

Information stored in classic barcodes has made it mandatory for the area of barcodes to grow as the content grows. This is one of the key elements in the development of QR codes and it has also enabled the proliferation of such codes. It can also be created in smaller forms despite uploading the same information to QR codes. While one-dimensional barcodes contain only right-to-left or left-to-right data, information can be transported in each edge and frame in QR codes.

The QR code directs users to the mobile web pages without performing any keyboard operations. Thus, the desired content is quickly accessed without being exposed to information bombardment on-line (Aktaş, 2014: 84).

Users can use the QR code in two ways. This allows users to first read a QR code to access information that has been encrypted by the code itself, or to reach actual information on an external server. It is not possible for people to read QR code without a mobile phone and QR code reader application. Therefore, it is necessary to have a smartphone and a reader application installed on that phone to read the QR code. With the built-in camera on smartphones, codes are decrypted via scanning process, and images, information and messages within the code can be accessed. The code may have information in its content and can also provide a link to access information (Aktaş, 2013: 122).

The second way to use QR code is to create your own QR code with code generator software for your needs. Many websites in on-line environment support non-commercial uses to generate such codes and receive their outputs. Users can

generate QR codes and receive computer outputs of the QR code they create. This process can be carried out in paid websites and/or websites that generate free QR codes (Aktaş, 2013: 123).

In their evaluations of the use of QR codes, Bozkurt & Ergen (2012:57) gave the following suggestions regarding the use of these codes:

- The barcode to be used must be unique, and it is necessary to ensure regular control of the content directed by the barcode,
- When discount, ad or campaign is finished, the barcodes located at the point of sale must be routed to another spot,
- It should be noted that the white frame around QR code should remain fixed,
- It should be noted that the ratio between the size of the barcode to be read and the reading distance is 1/10,
- The barcodes must be checked before applying. These barcodes must be controlled in the real environment, as well as to be controlled by mobile devices,
- It should be noted that the QR code is positioned in a place where the target consumer audience can reach it,
- It is necessary to inform users about how to use barcodes and what can be done with these codes,
- It is necessary to pay attention to very light or very dark environments that may prevent barcodes from being read.

Besides the many advantages that QR codes offer, there are some disadvantages. Accordingly, the necessity of Internet connection to read the QR code is a limitation. In addition, it is not always possible to verify the source of the code. For example, anyone can easily create a fake QR code claiming to belong a very famous brand. This makes QR codes vulnerable to abuse and fraud. Such fake QR codes can send malicious software to scanner person's smartphone, which can allow hackers to access the personal information it carries (Rajendra and Hement, 2013: 356-357). In addition, while devices with low camera resolution and devices lacking a code application due to non-operating system phones appear as a disadvantage, deformation of codes on the printed materials or posters occurs as another nuisance (Akın, 2014: 17).

It is also accepted that the QR codes used in campaigns are mostly preferred by audience, which is interested in information technology and can be easier to reach technology. This limits the number of barcode users. In addition, consumers may feel drawbacks to download software that enables barcode reading (Bozkurt and Ergen, 2013: 61).

Use of QR Code in Marketing

The rapid change in market conditions reveals the need for new methods and practices that differ from traditional behavior, activity, ideas and perspectives for enterprises. The change in the market, the diversity and the activities that manufacturers have made to keep pace with these situations have created the necessity of adapting new technologies and strategies to the companies' marketing practices and strategies. In this respect, businesses have included QR codes in their marketing processes and activities (Tüfekçi, 2014: 37).

QR codes with many application areas have become a very important tool in terms of marketing, especially with the proliferation of mobile devices. Enterprises can use two-dimensional barcodes primarily to integrate marketing channels, increase customer service, effectively use business processes as well as to provide competitive advantage. As the communication process is initiated by consumers in use of QR code, the process is more relational and usage of these technologies in marketing varies by creative and imaginative power (Bilici, 2015: 115).

The use of QR code as one of the marketing trends can be found especially on printed media pages, billboards, product boxes and other marketing environments. A qualitative focus group study conducted in Japan has determined that loyal customers will use QR codes to access promotional information and discounted products. We also use QR codes to provide more information about a particular event or object in education, museums and other public areas. The main purpose of marketing is to interact with a customer or a potential customer. The QR code will help customers achieve this by offering a better engaging service than other traditional advertising tools (Cata, Patel and Sakaguchi, 2013: 2).

Nowadays QR codes are becoming a popular marketing element. According to a marketing study conducted by www.vox.com, 14 million users have scanned QR codes at least once. In addition, 58 percent of customers scanned a QR code from their homes, while about 39 percent scanned QR codes in retail stores. These statistics show that QR codes have become a new wave in marketing (Cata, Patel and Sakaguchi, 2013: 3). It is possible to sort usage areas of QR codes in marketing as follows: (Bilici, 2013: 94-95)

- 2D Barcode, phone numbers, web links, e-mail addresses or contact information can be placed
- The ability to transmit additional information about a brand to the consumer (e.g. recipe, tricks, product specifications, usage information)
- Ability to include consumers in a promotion, gift/discount, download content, get permission for mobile communication
- Making print ads interactive by directing to a website, SMS/MMS transmission, promotional movie/video
- Ability to direct consumers to the on-line sales sites Ability to use for game fiction in special events
- The codes can be used as a product, and the consumer can read the barcode and make purchases and ensure that product is delivered to their home.

- Mobile payment
- Mobile ticketing

In the use of QR codes as an on-line sales channel, consumers can purchase the product from the Internet by reading codes with their mobile devices, and some brands may place the relevant codes on their products, while some companies may direct consumers to purchase the product quickly by adding them on their advertisements (Bilici, 2015: 109).

As a beautiful example of the use of QR codes in the field of on-line sales, eBay company in London has offered customers a different experience with a physical store for the purpose of the New Year purchases. The feature of this store was that it did not physically host products. With QR codes only, this store offers its customers the opportunity to shop on-line by reading codes with their mobile devices. The main purpose of Ebay's QR code store is to encourage customers to on-line shopping, in other words, to mobile shopping by showing them the physical product (Bilici, 2015: 110).

The ability of QR code technology to allow users to directly pass from one media to another media reveals that some applications can be implemented in the field of advertising. Smartphone users can interact with QR codes placed on many ads and go completely away from the first environment that the ad offers to them, which can be influenced by advertising messages in a different format (Aktaş, 2014: 94). When planning an ad campaign for a product or service with the use of QR codes, the audience may be under the influence of a mixed advertising campaign related to that product or service. Thus, the probability of QR codes to reach the results expected from the ad campaign can be increased (Aktaş, 2014: 95). QR code usage is lower than other ad types in terms of cost. This feature of the QR code makes it advantageous for advertisers to use this technology without significant increases in their advertising budgets. The QR code is free in its most obvious form and no additional expenses are required to be suppressed (Aktaş, 2014: 99).

QR codes make campaigns and ads look more engaging. Because they are customizable, they have the nature of enhancing brand perception. They can be quickly distributed on virtual platform and on the Internet media so that people find it interesting and different. For example, a video published by Ballentines on the use of QR codes was watched 1.5 million times in a short time (Bozkurt & Ergen, 2012: 16).

The QR code can be placed on product packages. Thus, customer can access the product's user manual, technical information related to the product, the mobile Web page where the product is located by deciphering the QR code on the package where and when the customer sees the product. They can also be linked to videos that show how the product is used on Youtube and mobile Web pages with information about the product's features (Aktaş, 2014: 131).

With all this, marketers need a good customer database to identify the needs and desires of their customers. It has also become a good option to use QR codes to provide links to specific websites where information is collected through various tools (e.g. surveys, polls) about customers' needs and requests. The data

obtained through the use of codes is analyzed to determine the bids for the target customer, and the information obtained in this way is to customize the products according to consumers' needs, to develop new products/services or to identify target customers (Meydanoglu, 2013: 30).

The most important feature of QR codes created for the promotion of discounts and campaigns is to inspire curiosity and allow the user to read the square code. In these applications, users are given a reward, or a discount entitled to read the code or fill in the questionnaire in the code they read, or simply read the code and reach the company AD. For example, in the QR code campaign implemented by Opel, he collaborated with Opel, Odeon Tours and Vestel. In the campaign, customers who wanted to get a discount from Odeon Tours and Vestel scanned with their mobile phones with Internet connection in the Opel sales centers. If scanned, users gained a chance to win a discount of up to 40 percent from Odeon Tours and to win a 10 percent shopping discount from Vestel (Bilici, 2015: 113).

The ease of use of QR codes makes these codes particularly appealing as a promotional campaign tool. For example, McDonald's has used QR codes in its packaging as part of an ongoing nutritional content campaign to help customers make informed choices. Similarly, Starbucks placed QR codes in in-store signboards that support the Verismo system (Okazaki, Navarro & Campo, 2013: 139).

Studies in the literature on the use of QR codes often emphasize the importance of this interaction, not specifically for advertising, but for marketing in general. In general, the features of QR code usage in marketing are summarized as follows (Meydanoglu, 2013: 29):

They provide a higher level of commitment with consumers. This can strengthen the commitment of a particular brand.

They offer advanced traceability and monitoring options. Various software programs are available to follow the individual code. Using these software options, it makes it possible for a marketer to know the number of scans per day, when these scans were made, the type of device used to scan the code, and even the location of each scan. This information allows marketers to see what is sold and what is not. They can then decide to place the products or continue to sell a product better.

It allows to assess consumer interest at a faster rate. QR codes allow companies to connect with consumers in real time and immediately assess interest in a particular product or campaign. By monitoring how many consumers have scanned the code, the marketer can receive real-time feedback on how well the campaign was received by the consumer.

The QR codes integrated into screens can be intriguing, stop the consumers, and allow them to recognize promotional materials while shopping. This is one of the key advantages of QR codes for marketers.

It is acknowledged that QR codes are particularly important contributions to marketing with personalized advertising. Accordingly, personalized ads can contribute to avoiding sending irrelevant messages to consumers. By scanning QR

codes, users can be directed to videos, websites, live operators and similar interactive marketing materials.

These materials support interactive communication between marketers and consumers and contribute to reducing information asymmetry to provide exchange of information and support the customer. QR codes allow companies to access their websites anytime and anywhere by considering consumers' satisfaction through interactive communication with various services and tools used on their websites and by considering participation of consumers in some business processes (e.g. service improvement).

QR codes also provide significant benefits in terms of attendance and customer satisfaction. QR codes contribute indirectly to reduce the level of products returned after purchase by providing access to websites that can develop appropriate expectations about products through good interaction with consumers. QR codes also allow you to track marketing campaigns through specific software that can determine which QR codes to scan, the number of scans each day, the time these scans occur, where each scan occurs. These indicators can help assess the success of a marketing campaign and improve the next campaign (Meydanoglu, 2013: 31).

There are many brands/companies that use the QR code in very strategic ways and obtain various benefits. It is possible to summarize some QR code applications in marketing of these brands as follows:

Table 1. *QR Code Applications in Marketing of Some Brands*

Brand/Company	Objective	Application
Emart (South Korea)	To increase the sales of lunch time	Emart placed a large 3D sculpture in the great city of Korea, especially between 12:00-13:00, so that a QR code will appear. Customers who scanned the QR code on their smartphone won a discount coupon for instant shopping.
Coca Cola (Spain)	To establish relationships with new customers and provide deeper communication with existing customers	Users saw QR codes placed on the package, inviting consumers to scan for content such as UEFA Euro 2012 videos and the brand's online community, Coca Cola Smile World
Volkswagen (Mexico)	To prove that a Volkswagen Crafter has a large interior space	Volkswagen decided to create a giant QR code made of crates full of lemon. Starting in the early morning, a team was commissioned to stack a solid wooden wall showing a QR code of crates filled with lemon. When people noticed and scanned this QR code, a video started instantly and showed that it put everything in the van in a Volkswagen Crafter.

Cadillac (North America)	To provide information about the new XTS model	When users scanned the mobile barcode, they were redirected to a mobile landing page where they could watch videos or browse a photo gallery of the XTS.
Kraft	To introduce Cheese varieties	QR codes were placed and scanned into five different cheese products, consumers were taken to a page showing a recipe using this particular cheese product.
Mcdonalds	To improve awareness of products nutrition and dietary information	QR codes were placed on all package bags and cups, and with a single scan, healthy conscious consumers were given the necessary nutritional information about the foods.

Source: (Asare and Asare, 2015: 69)

QR codes allow to implement innovative applications not only in terms of campaigns but also with consumer-friendly developments. PayPal, MasterCard and its local partners have passed the payment system using QR codes for authentication and identification, and especially in Asia there have been significant developments. Microsoft has started using QR codes on the Xbox One game console and has provided the ability to redeem codes by showing a QR code to the Kinect camera. QR technology was built by Apple on the Passbook in iOS 7 (Komarov & Dorofeev, 2015: 12).

QR Code in Terms of Marketing Communication

The role of marketing communication of the QR codes, a distinguishing feature, can be explained by innovation and content. The role of marketing communication of the QR codes is mainly based on the operating system of QR codes.

Distinguishing feature: The distinctive nature of QR codes means that it is available in very different areas. In the development phase of these codes, while codes are black and white, and the second-generation codes can be colored and embedded in a logo. Thus, QR code can be produced from desired geometric shapes, and logos and writings contained in the code give visual richness (Tüfekçi, 2014: 39).

Innovation: QR codes act as a bridge between marketing communication and digital marketing. QR codes can be used as part of promotion activities and can also provide users with the opportunity to communicate to interactive marketing content. In addition, these codes are characterized by their dynamic structures and the quality that differentiates enterprises from their competitors.

Content: QR codes are considered as an important marketing tool with the need to take a picture of code through smartphone for accessing to the relevant

content, thereby arousing curiosity in the consumer and providing access to these applications at any time.

Place of QR Code in Marketing Mix

Marketing mix is the basis of market and helps marketers to configure their marketing activities. However, new technologies, such as QR codes, affect the elements of marketing mix. In this section, the effects of QR codes on the marketing mix were analyzed. However, to analyze the effects of QR codes on the marketing mix elements, it is advantageous to first examine the effects of electronic marketing on the marketing mix elements of mobile marketing, because QR codes are a technology that makes mobile marketing possible, and is a subset of the e-marketing of mobile sales.

E-marketing developed during the e-commerce period can be expressed as the use of electronic communication technology to achieve marketing objectives. Since marketing on the Internet is a completely different process than traditional marketing, it is necessary to make changes to the market mix elements. As part of mobile trading, mobile marketing is based on innovations brought by e-marketing and leads to some developments in the market mix. E-marketing has provided further customization of new products supported by the opportunity to better explore customer needs in electronic form (Klein, 2014:5).

Mobile marketing also provides location-based product offerings, such as sending SMS when entering a store to provide information about a customer-specific marketing campaign. E-marketing makes marketing and purchasing processes more transparent and increases the competition between the standardization of product prices and marketers. The total cost of e-marketing environment will be significantly reduced because the costs of processing, time and opportunity cost in most cases will be lower than the costs of physically performing these activities.

The on-line marketing environment offers a new channel for global advertising and creates a more interactive communication form between marketers and customers. On-line marketing offers companies a new way to provide information about products and services, regardless of time and space, so customers can always access information sources (Klein, 2014:5).

Mobile marketing offers personalized and interactive ad content and campaigns organized in the mobile environment. For example, time-specific mobile coupons can be sent to potential customers' mobile devices when the promotion of a product is most effective. In addition, location independence is more intense due to the use of portable devices on mobile devices.

As a mobile marketing tool, QR codes represent a mobile marketing technology where the customer scans a code and receives content or information that the marketer intends to send to initiate its marketing activity. The advantages of QR codes for marketers and customers as a mobile marketing technology can be summarized as provide a wide range of information or content and attracting

irrelevant customers due to curiosity about code contents, and providing customer satisfaction without disturbing customers.

Table 2. *Marketing Mix and QR Code*

Marketing Mix	QR Code
Product/Customer	Ability to collect information about customer features or preferences The possibility of contacting customer service
Price/Cost	Access to discount coupons, Access to special prices, Reducing costs
Promotion/Contact	Waking up interest in products Access to various AD contents Access to mobile campaigns Detailed product information source Initiating communication with the consumer
Distribution	Opportunity to buy instantly and anywhere

Source: (Klein, 2014: 6).

As pointed out by Klein (2014:6), the virtual toy store of Walmart in the United States is based on QR code technology and is a good example of analyzing the impact of QR codes on marketing mix elements. Walmart allows customers to see and explore toys without entering a real store with the QR code added to each product in a dashboard or display window. Scanning a toy's QR code directs users to a web-based on-line store that provides general and price information about toys, and then gives customers the option to purchase a toy directly on-line. Scanning QR codes can also offer marketers the ability to collect the features or opinions that customers can use for product development. Scanning a QR code can also allow customers to fill out a questionnaire to collect customer feedback for additional benefits. Another impact on the product/customer is that the QR code creates an ideal environment to communicate with customer service and can scan the QR code to reach customer services (Klein, 2014: 6).

In relation to the price/cost factor, QR codes are similar to other mobile marketing technologies. Instead of sending discount coupons via SMS or email, the user can access them by scanning QR codes. It is also possible to offer special prices to customers with QR code; for example, the first hundred people who scan the code can get a better price than the rest. As with Walmart example, the marketing of QR code-based products can save on maintenance costs.

The most important effect of QR codes is on the marketing mix element, publicity/communication. The promotion can include all activities to attract consumers to a product, to deliver a product in the best possible way, and ultimately to sell the product. QR codes are particularly suitable for these activities since it is a new technology. The curiosity factor allows consumers to scan the code even if they are not interested in a product. In this way, consumers will be informed about the products they are not really interested in. The promotional power of QR codes does not only attract consumers, but also provides access to a

variety of promotional content such as product and price information, advertisements and marketing campaigns.

If QR codes take the code to an on-line store offering the specified product, it will affect the element, location/ease by making it possible to purchase a product through a QR code scan. The Walmart sample shows very well how the QR codes can affect the element, location/facility. The customer can only scan the QR code to access product and price information, thereby dramatically increasing the likelihood of purchasing the product.

Previous Academic and Sectoral Research About QR Code Applications

Recently, there has been an increase in marketing researchers' studies on the use of QR codes. In particular, although it is important for marketing plan practitioners to be able to change embedded messages as desired and the cost is very low, a consumer report has revealed that only 65 per cent of survey participants are aware of the QR code, and that only half of those who are aware of the QR code are willing to scan. Therefore, to implement a successful mobile marketing using the QR code, it is crucial to determine who QR code users are and how they differ from non-users (Ryu, 2013: 20).

The literature also shows that there is a consistent growth in the use of QR codes in the last 10 years. Heltman indicated that the use of QR codes in the United States increased by 9840 per cent in the second quarter of 2011 compared to the second quarter of 2010. The use and acceptance in the continent increased by 120 percent in the last six months of 2010 (Ozkaya et al., 2015: 213). According to Nellymoser's studies in 2011, while there were 352 QR codes printed in announcements in the best 100 magazines in 2011, a total of 4468 QR codes was printed during the whole year. Thus, only the number of QR codes printed in the fourth quarter increased to 1899; this simply means a staggering 439 percent growth in the magazine industry (Probst, 2012: 2).

The Forrester Report showed that only 5 per cent of US consumers scanned a QR code for a period of three months in the mid-2011. However, it showed that early acceptance of this technology is mostly young, economically rich men, and that approximately 20 percent (or 2.8 million) made a purchase after scanning one of these codes (Ozkaya et al., 2015: 213).

While 68 percent of the hundreds of thousands of QR codes created in 2013 directed consumers to a website, 6 percent directed users to a Facebook page. Many other uses, including the use of apps, video playback, and visiting a location, are 18 percent. It is assessed that the share of videos and applications will increase in the near future (Komarov & Dorofeev, 2015: 12).

In the academic literature, studies on the use of QR codes have shown an increase trend in recent years. Accordingly, Sanal and Öztürkoğlu (2017) interviewed with 180 people within the scope of their survey study conducted on QR codes' fields of use and usage reasons, according to data obtained, researchers concluded that consumers scanned the QR code at least once in their lives, placing small codes on advertisements increased the likelihood of scanning these codes.

Rojendra and Bamoriya (2013), as a result of the content analysis conducted in the field of advertising for QR codes in India, found out that fashion/clothing sector was in the foreground in terms of QR codes placed in various printed advertisements in two leading newspapers of the country. Other sectors that use QR codes were listed as home care products, jewellery, electronics and automobiles.

Ozkaya et al. (2015), according to their study findings, showed that users who focused on product related activities, such as collecting or purchasing product information, used QR codes more often than experiential users focusing primarily on socializing and entertaining. It was also revealed that people with more electronic devices used QR codes more. Practical users focused on reaching the target in their use of QR codes. Searching for information about the product, finding the product website, shopping, making product research and controlling prices are the activities that may be considered to be closer to purchasing behavior. In addition, practical QR code users are more willing to use QR codes to collect information about the products they plan to purchase and even complete purchases.

Santos (2015), in a study conducted in Portugal, examined the intention of accepting the QR code and its impact on digital marketing. To achieve this goal, an e-mail survey was conducted on a sample of 116 graduate students. The results showed that consumers often knew this new technology to access websites and other information on-line. Another conclusion was that the Portuguese consumer developed a positive attitude towards the use of the QR code and most of the participants were interested in trying this new vehicle in the future. In addition, many participants demonstrated the intention of applying the code in different conditions, which was easy to use and useful.

According to the study conducted by Bozkurt & Ergen, consumers, in their views on 2D barcodes and QR codes, briefly revealed their desire to place email addresses or contact information. It was also emphasized that it was important for them to convey additional information about a brand to the consumer.

According to the research results by Okazaki, Navarro and Campo (2013), consumers perceived the QR code as a useful tool for accessing promotional information such as discount coupons or free samples.

Use of Traditional Media in the Marketing of Music Products

The marketing of music products has begun to develop together with the industrialization of music and the development of the advertising sector. Radio channels have played the first important role in the marketing of music. Recording companies aim to make the recordings that they offer to the music markets, be broadcasted on the radio channels and to be heard by large masses. Another channel that is effective together with radios is the newspapers and magazines. The advertising of the records and cassettes are announced by publishing them in newspapers and magazines.

Figure 1. *Magazine Advertisement Samples of the Recordings featured in Seventies in Turkey*

Source: HEY Magazine 1975

Along the widespread use of the television channels, self-presentation of the singers and musical groups on televisions has become an important advertising tool. The music companies using the television channel as an advertising media and the advertising spots of the recorded albums are assessed in the advertorials of the television channels. MTV, founded in USA in 1981 that is the first music television of the world, has increased the importance of the television media in the marketing of music. Together with the emergence of TV channels, video clip recording has become widespread. Video clip recording that has started under the leadership of MTV, has turned into a sector especially in the nineties. In this period, video clips have played a leading role in the advertising and marketing of music products. The increase in the number of music and television channels in the world has also led to an increase in the production of video clips. Video clips, enabling the release of a new song or album with visual images, have played a very serious role in the marketing of music products.

Another media that is effective in the marketing of music is outdoors. Especially in the nineties and 2000s, muic products have also benefited from the popularity of outdoor advertising. In 2000s in Turkey, many singers have used outdoors for announcing them.

Figure 2. *Outdoor Advertorials of the Albums of the singers Aylin Coskun and Hakan Peker that are recorded in Turkey*

Source: Photos Ara taken by the writer in İstanbul Mecidiyeköy and Levent Area

Upon the emergence of digital media, marketing of music in traditional media has gradually shifted to digital media. Especially in 2000s, the music production companies in Turkey had started to use digital media for the presentation of music albums and singers/musical groups.

Table 3. *Media Used for the Marketing of Music Products in Turkey and their Terms*

| Media	Period
Radio	From 1940s until today
Television	From 1970s until today
Music TV and Video Clip	From 1990s until today
Magazines	From 1960s to 2000s
Gazette	From 1960s until today
Outdoor	From 2000s until today

Digital Marketing of Music Products

Upon digitalization, as in all the sectors, the marketing styles in the music industry has also changed. On the way from traditional marketing to digital marketing, the music industry has also been affected by the changes on their share. Digital music marketing has initially started by the banners of the websites, then digital music platforms such as iTunes Music, Pandora, and Spotify have diversified. Together with the emergence of Web 2.0 technology and the speed of the internet and then, with the emergence of Web 3.0 and social media, music

products are started to be marketed through MySpace, Youtube, Facebook and even Twitter. MySpace has become the first major digital music platform of the world and has become the most popular music advertising channel of 2000s. YouTube, opened on February 15, 2005, has become an important milestone in digital music marketing. YouTube, which has replaced traditional televisions, has become the platform where all the soloists - musical groups and music companies can show themselves, and then has become the most important digital music platform in the world. Young people have preferred to watch and listen to music on Youtube. This has led the launching of clicking wars on Youtube in 2010s. The success of a music product is started to be measured by the number of clicks on YouTube. YouTube did not leave this success unrewarded and awarded the music products according to the number of ratings they received. This award has been applied in the form of giving a share to the authors from the incomes of the advertorials shown during the recording of the relevant music product. Thus, Youtube has become both an important digital marketing platform and an income platform.

The smart phone revolution that has started with Apple has turned the phones into small computers in the 2000s. Via the development of smart phones, users have started to do almost all of their work in the mobile media. They started to do many activities from their smart phones synchronously such as reading news, reading and writing electronic messages, checking the social media accounts, watching videos and listening to music. This has deeply affected the music industry. Thanks to the development of smart phones and its increasing contribution in daily life, the music industry has started to reach the consumers through digital music platforms. Social media platforms, video platforms, especially Youtube, and digital music platforms such as iTunes Music, Apple Music and Spotify have pioneered the transformation of music into a virtual product and the consumption/use of these channels from such media. Today, there is a significant increase in the listening rates of the music products through digital music services. Today, the global economy of the digital music industry has reached $ 2.3 billion worldwide.
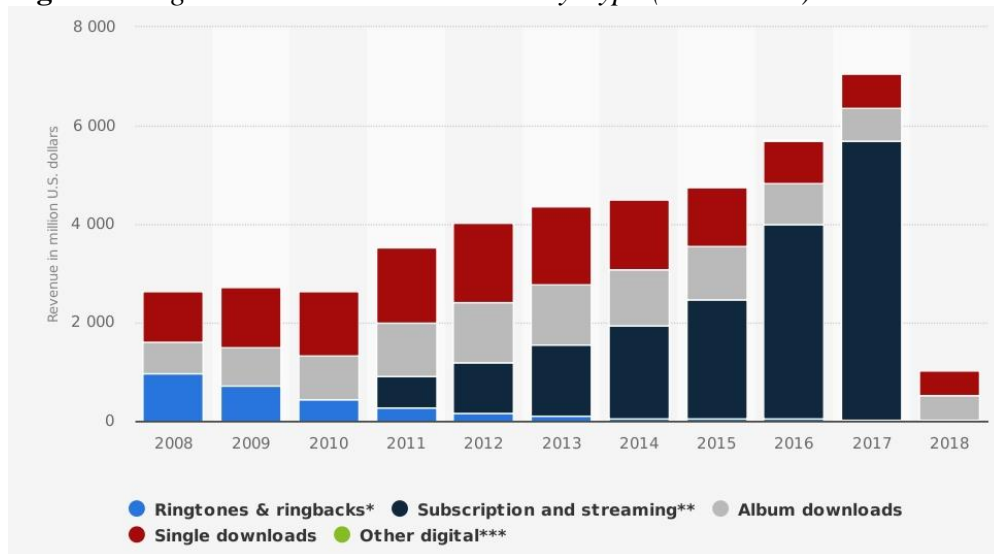
Figure 3. *Global Digital Music Revenue in Billion $ (2005-2018)*
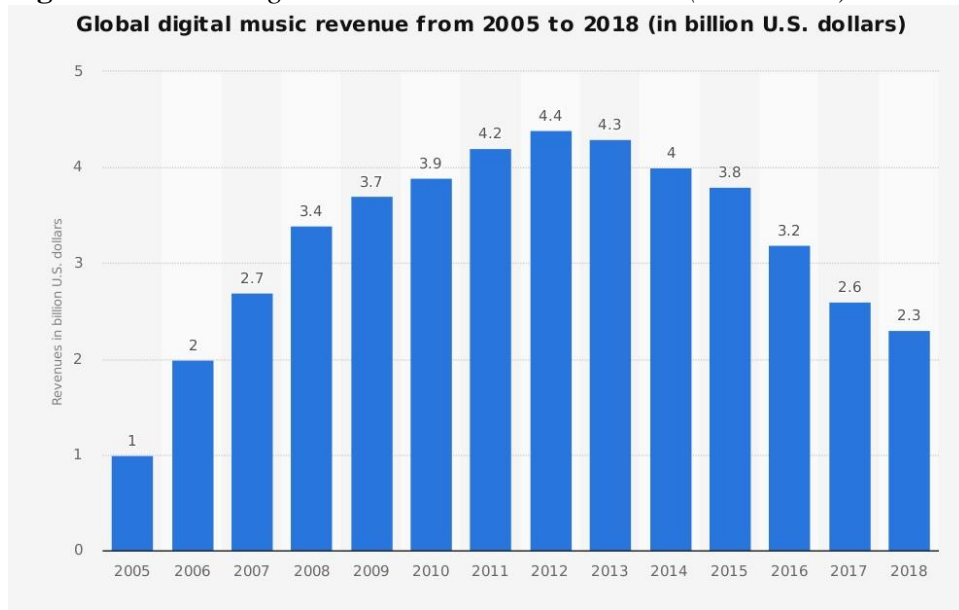
Source: Statista

When we look at the stakeholders within the digital music industry itself, we can see that subscription to digital music platforms and streaming increase every year.

**Figure 4.** *Digital Music Revenue in USA By Type (2008-2018)*

Source: Statisca

In 2018, physical album sales in the world music industry has accounted for only 25 percent of the market. Of the music listened, 14 percent is listened via concerts and similar music activities, and the remaining 60 percent is the music consumed via digital media. In such an industry where the digital music industry has grown so much, there have been significant changes in the marketing of music

and the delivery of music to the consumers. One of these changes is the use of QR code, which creates a link between the music and traditional media via smart phones.

Figure 5. *Share of Recorded Music Industry Revenues Worldwide in 2018 in Segments*
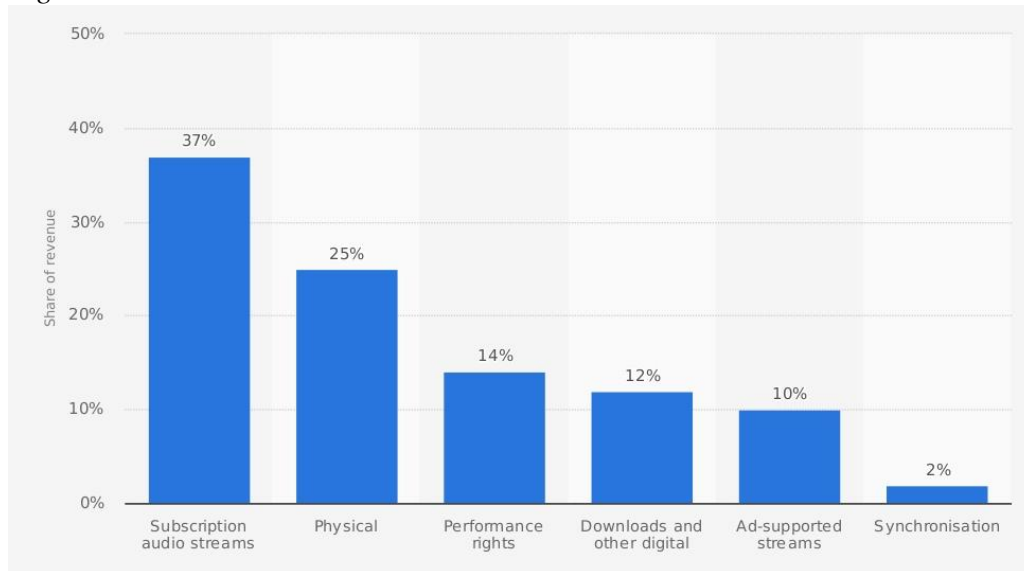
Source: Statista

QR Code pioneers in the transfer of music to all the digital media, especially mobile media, in traditional media. The music producer, who wants to advertise the music product, has the advantage of reaching the consumer directly through the QR code. As a result of the researches performed before the applications used in the world, the use of QR code in the music industry has been shown in the specified formats.

Table 4. *Essential Function of QR Code in Marketing*

$\Rightarrow$ An advertisement in a book, magazine or a gazette,
$\Rightarrow$ Poster, event ticket,
$\Rightarrow$ T'shirt, hat and similar clothes,
$\Rightarrow$ On the covers and graphic designs of physically sold recordings and CDs,
$\Rightarrow$ On Outdoor advertorials,
$\Rightarrow$ In television media,
$\Rightarrow$ Brochures, press releases

The most important function of the QR code is the connection between traditional media and mobile media. With the QR code to be placed on an ad in a newspaper or a magazine, music producers can click on that code in a smart phone and have the music ad to make an online journey. The QR code in this ad can provide the consumer an empirical experience for the music product through a smart phone. The link given to the QR code here gives you the opportunity to access the music product, such as the song of a new released album, the website of the album, the link to the video clip. The consumer clicking on the code has the opportunity to listen to or purchase the music product via his/her smart phone.

Figure 6. *QR Code Use in Magazine and Gazette Advertisements*

Source: Rolling Stones Music Magazine

The QR code can also be placed on the products such as CDs and recordings that are sold physically and provides the possibility to reach the songs in that album in digital media. By clicking on the QR code on the album, the consumer has the opportunity to download the MP3 files of the songs in that album to his/her mobile phone, watch the video clips, and also watch other visual works about that album.

Another traditional media channel that makes use of the QR code advantage is outdoor and television. An advertisement banner placed on a billboard in Outdoor can attract the attention of a user who crosses the road at the time and may cause him/her to click on the QR code appearing on that banner. Of course, there should be a motivation in that ad that will cause the consumer to click on the QR code. This motivation should be an advertisement that offers an off-price entry to the concert of the artist on that banner, and an off-price or free access to the album in digital media.

Figure 7. *QR Code Use in Outdoor Advertisements*

Television media is also an efficient channel for using the QR code. The QR code providing an important opportunity for those who want to reach a song used during a music clip, or during a film or series, can instantly sell a product to the viewer who is currently under the effect of the television and influenced by the visuality, or the advertisement of that product. In order to exemplify, an audience affected by a musical work used in an emotional scene in a TV series can instantly download that song to his/her mobile phone by clicking on the QR code that will appear on the screen.

Figure 8. *QR Code Use in TV Media*
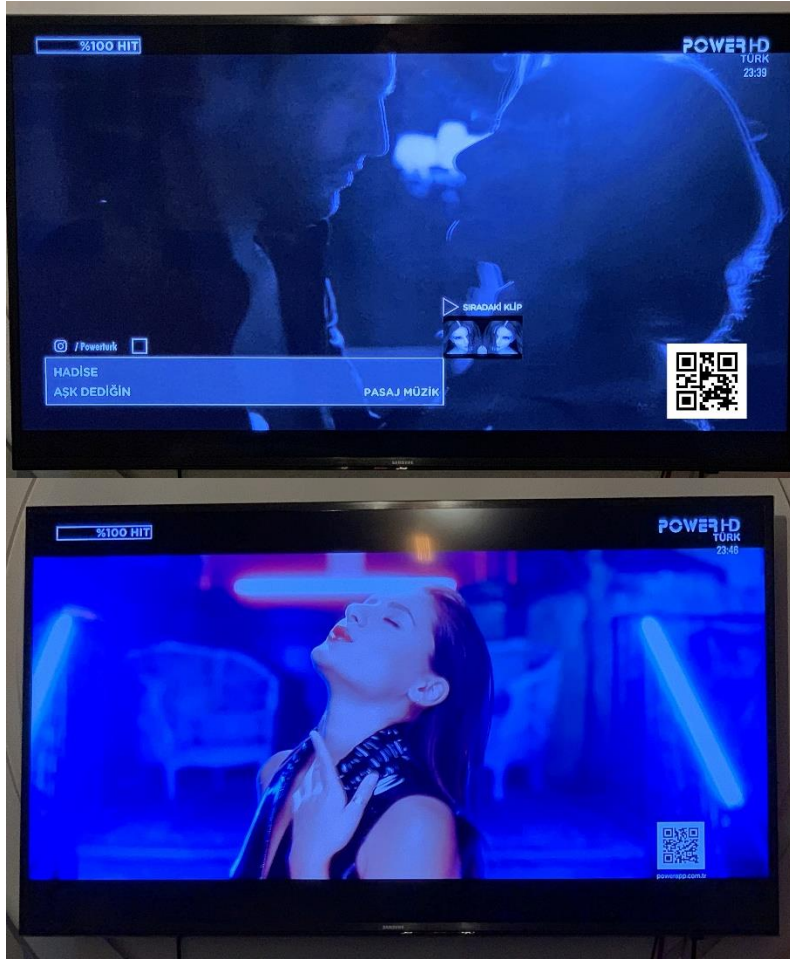
Source: Powerturk TV

The QR code is also used in the marketing of the songs or artists by using them in brochures and press releases that are printed for the advertisement of music products.

In a brochure that is prepared for the album of a musical group or a soloist, as well as the written information about the album, QR code is used to provide opportunity to listen to the album through digital platforms. In the below-mentioned example, the sample of the brochure prepared for the album titled "La Descarga" of Luis Ernesto Gomez and Gülseren is presented.

Figure 9. *QR Use in the Brochures Prepared for the Advertisement of Music Products*

Source: Flyer of Salsa Big Band Group

There are also some music companies that actively use the QR code in the marketing of music. One of them is Sony Music that is one of the leading music companies of the world. Sony Music adds a QR code to the press releases submitted to media and gives links to the song and video clip of the artist and song that it promotes. This application is first applied in Turkey by Sony Music Turkey in June 2019 for the presentation of the new single titled "Öyle Sev" of Güliz Ayla that is published in Turkey. On the press release, Sony Music Turkey has added a text message for the media and for the music community of the artist, the name of the song, a photograph of the artist, and the QR code at the bottom of the press release. Below the QR code, "Read the code with your camera in order to access the clip and the song" is written.

Figure 10. *Press Release Prepared by Sony Music*

Source: Sony Music Turkey.

After the QR code is read by the camera of a smart phone, the mobile browser goes to a page and provides information regarding that song. This information includes a 20-second demo play of the song, while the links for Apple Music, Spotify and other digital music platforms from where the song can be listened, and links to the YouTube channel that allows to watch the clip of song are also given. By clicking on the YouTube link, clicking on the video clip of the artist, and clicking on the links of the digital music platforms, you can be directed to the section where the song is present.

Figure 11. *Graphic of the Display after clicking on the QR Code on the Press Release that is prepared by Sony Music*
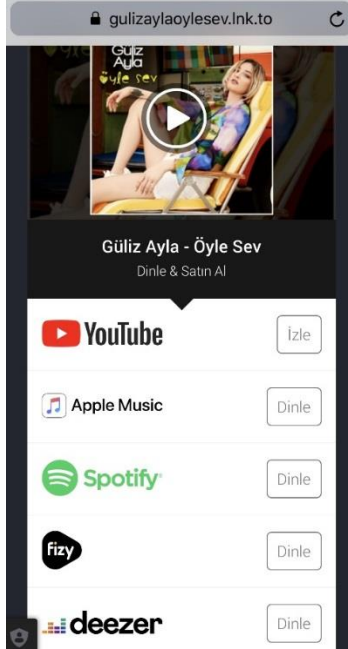
Regarding the marketing of the music, The German music company "Kontor Records" uses the method that is firstly used in the world and presented with the "back to VINYL" slogan for the QR code. Instead of sending the albums of the soloists and bands within the scope of the music company, as a promo CD to the media, they send them by a material called "The Office Turntable". Thanks to the QR code in this virtual recording, which is sent by packaging it in an envelope, listeners can listen to the songs in the album anywhere on their mobile phones and can switch between the songs as they can do on a recording.

Figure 12. *"The Office Turntable" Project of Kontor Records that is operated by a QR Code*

Source: Kontor Music Web Site

QR code is only used when switching from traditional media to digital media. Digital music platforms also use the QR code in the marketing of music. One of them is Spotify that is one of the mostly used digital music platform in the world. Spotify, has started to use the QR code in music sharing via an application launched in 2019. Spotify has introduced the QR code feature for radio/playlist sharing on the Spotify platform, which allows the users to share a song while listening it on Spotify through social media or instant messaging. Hereby, Spotify users have the opportunity to share their own playlists with the other users on the platform. This application, which the platform calls as "Spotify Codes", has brought a different dimension to digital music sharing in the world.

Figure 13. *Display of the "Spotify Codes" Application that is developed by Spotify*
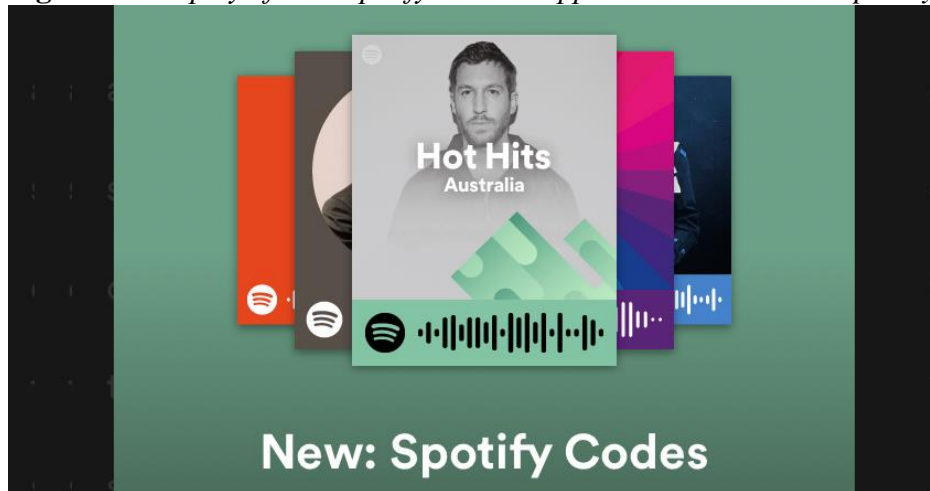
Source: Spotify Software

Via this feature, Spotify requires to find a singer, song, playlist or any album on Spotify and to click on the right side of the three points in order to select what the user wants to be shared. Then, it is required to click on the QR code on the screen in order to enlarge this image. The user receives the code sent via a message, e-mail or social media, then enlarges it by the help of a magnifying glass icon and then scans it by pressing the camera button in the upper right corner. As soon as the code has been scanned, it starts playing in the Spotify account of the person to whom we sent this code. The "Spotify Codes" feature of Spotify providing music sharing of the people via QR codes, have brought a new dimension to the marketing of the music industry, especially among small independent musicians. We can say that marketing passing from mouth to mouth that is also called as a grapevine has converted in a digital grapevine via the QR codes.

Another method used in the marketing and sharing of digital music products is transferring the products from a desktop computer to the mobile media (tablet and smart phone). One of the best practicing platforms is the digital media called "Online Video Converter". This channel enables you to download all the videos on the internet, especially Youtube videos, into MP3 audio files or other video formats and download them to your desktop computer. The platform displays a QR code after converting the processed video to the desired format and enables the transfer of this video to the mobile media via the QR code along with the information text "Scan the QR code below directly to your smart phone or tablet".

These two examples show that QR code will be one of the leading players in the sharing market that is an important component of sharing economy that has an important place in digital media.

Conclusion

Recently, marketing has become one of the sectors most affected fro technological developments and innovations. Mobile marketing applications, which have become a sub-branch of marketing thanks to the widespread development of mobile devices and developments in Internet technology, have begun to be more practical. QR codes, one of the latest technologies in these applications, are often implemented due to their interactive structure in the field of marketing.

QR codes, the two-dimensional barcode system, which was introduced by Denso in Japan in the 1990s in the automotive industry, are now being used in a range of fields from press to tourism, from manufacturing to marketing. The capacity of these codes, which can include data such as Video, audio, is very much above the barcode technology and brings many advantages. Therefore, the QR codes that can be considered as the advanced form of the classic barcode system may emerge in many different forms such as advertising in the field of marketing, promotion, instant sales and ticketing.

QR codes also enable marketers to connect the digital and physical world together and make ads much more dynamic. As well as the advantages of scanning simplicity, unlicensed and free use, the location of QR code in marketing is increasing by the day as it accommodates the advantages of interactive advertising. Personalized advertising via QR codes can greatly contribute to avoiding sending irrelevant messages to consumers and convincing consumers to receive offered goods/services. In this way, personalized advertising can directly contribute to learning about future marketing and advertising campaigns.

There are many advantages to using QR codes. A user can instantly access detailed information about a product, service or situation with a direct mobile device. For this, it is simply enough to read the code by camera of a device. User can keep the digital archive of this information on his/her phone and then retrieve it again at any time. Code publishers can also provide more information to the audience they target and keep this information up to date. Since QR technology is accessible free of charge, anyone can create a QR code and send it to any desired media.

The use of QR codes in the field of marketing also provides many benefits. Accordingly, the use of QR codes has become an important mobile marketing tool with features such as the ability to interact with the user, as well as having much lower cost compared to classic advertising expenditures. The QR code will be a more frequent marketing tool in the near future because it requires quick access to different resources or access to additional information about products or services and a very small space.

When we give a final look at the benefits of QR Code to marketing we can summarize the steps as follows.

✓ Can give a link to for the music product to digital platforms (Spotify-Apple Music),

- ✓ Can give a link to the internet site of the music commentator and the internet site of the musical group,
- ✓ Can give a link to the video clip of the musical work on the YouTube channel or to Youtube or another video platform of the relevant soloist or the musical group,
- ✓ Can give a link to the concert or event internet page of the music commentator/musical group, can provide the listener purchase a ticket for the concert or the event by giving a link on the online page of the site where the tickets of the event are sold,
- ✓ Can be ensured that photo - video and similar informative materials are shared between the music commentator/musical group and the fans and that these are shown to the fans for the first time,
- ✓ The announcement of newly released or unpublished songs of the music commentator/musical group can be provided,
- ✓ These demos can be presented to the sponsors or investors by giving a link to the demos or new songs of soloists or bands who are called as no name and who have newly entered the music market, or the amateur soloists.
- ✓ Traditional media called newspapers, magazines, outdoor advertisements that do not fit in the fields, television-radio channels, advertising spots that do not fit in the duration of the information via digital platforms can be presented to the consumer by offering a link to online media.

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