

QR Codes Awareness from a Developing Country Perspective

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Abstract

The credit of development QR Codes goes to DENSO WAVE a subsidiary of Toyota Motor Corporation in 1994. The aim of the QR codes was to traced automotive parts at that time but now the QR codes are used in a wide range of activities. Denso Wave did not opt for the patient right, so it is used by any one for any activity. QR codes can be seen in advertisement of different products, retail stores, medicines, airline boarding pass restaurant menus, libraries (Cox, Steven, and R. Shiffler 2014). QR Codes is a new technology and the aim of the paper is to assess the knowledge and awareness of the QR Codes and the uses from a developing country perspective.

Key Words: QR Codes, Adoption, Mobile Marketing.

Introduction

The use of internet in mobile and low price of the mobile phones has changed the scenario in the present era. Mobile has adopted the shape of minicomputer and one can work without any restriction of place and time. The availability of internet in mobile is the most important feature that has make the mobile phone an integral part of the user and he is able to reach a lot of information's via his mobile without any restriction of time and place. Marketers try to find and developed new channels of communication with the customers and the present day smart phone is one of the latest channels of communication available with the marketers through which they can reach the target customers without restriction. Marketers through Mobile phone not only convey information's to the target customers but also get their response about the product and this birth the concept of interactive marketing.

“Mobile marketing is the use of wireless media as an integrated content delivery and direct response vehicle within a cross- media marketing communication program” Mobile marketing Association (2006,p.22). Mobile marketing refers all activities carried on by the organization to make communication with the customers and keep them in an interactive way by using any mobile device or network (Marketing Association, 2008, p. 22)

Mobile marketing refers communication with the consumers through wireless device to provide them location base, personalized and timely information about the goods and services lunched by the organization (Scharl et al., 2005).

Application of QR Codes in marketing:

Many technologists think that advantageous innovation will sell themselves, that the obvious benefits of the idea will be widely realized by potential adopters, but situation is different – Rogers, E. M. (2003). The availability of low price mobile and internet increase the use of smart phones in the world. According to statista.com the number of smart phone users in the world was 1.57 billion in 2014 and it reached to 2.32 billion in 2017 and it is expected that till 2020 the number of smart phone users will be approximately 2.87 billion in the world. The rapid increase of smart phones provided an opportunity to the marketers to use the QR codes for interaction with the customers and use as marketing communication tool. (ITU, 2014 Michael & Salter, 2006,).

The use QR Code is increasing day by day by day in the world by the marketers to create interaction between consumers and the brand. QR Code is just like traditional universal codes use on different products but its specification is different from the Universal codes. (lafrance,& Hooft,2012).

Marketers in japan US and western Europe with the rapid increased of smart phones has developed the trend of using QR codes in their marketing strategies. The use of QR codes rapidly increase worldwide not only for marketing purpose but other activities also and it was noted that from January 2010 to January 2011 the in only one year QR Codes scan increase with extraordinary rate of 4549% (Daniells, 2011). The data was collected from the 128 countries about the use and scan of QR Code for three months (April to June) during the year 2011 and it was found that there was an increase of 400% in downloading of QR Codes application, 850% increase was noted in active users of QR Codes and 810% increase was in total QR Code scans. (Tolliver-Walker, 2011).

QR code is glorified bar codes printed on products, billboards bus stops newspapers and journals. QR code is read by special software installed in the internet enable smart phone. The user scans the QR Code and it lands the user to URL SMS or other information embedded in the QR codes (eMarketer, 2012).

Literature Review

The use of QR Codes technology is new and in the literature there are less research available on the use and adoption of QR Codes. (Ashford, R. (2010).

Alessia Lombardi et al (2017) They study conducted to know the attitude of the consumer to pay extra for QR Codes on the label of Extra Virgin Olive in this study the attitude of the was found positive among the consumers to pay extra for getting more information on the bottle of extra-virgin olive through QR codes. subjective norms were also found to have positive effect on to pay more for the bottle of extra-virgin olive which provides the customers more information about product through QR codes. The effect of perceived behavioral control and past behavior was noted negative in this study. Market mavenism and hedonic motivations have positive effect on the attitude of the Consumers to pay more for presence of QR. While the utilitarian motivations effect was noted as negative on WTP(Willing to pay).

Eyüboğlu, k., & sevim, u. (2016) this study was conducted in turkey to know the determinants of adoption QR code payment by using the TAM model. The author include two extra variables perceived playfulness and perceived risk with original construct of perceived ease of use and perceived usefulness to know the intention of the respondents about the QR Codes payment. The study found that all the variables of the proposed model has significant impact on behavioral intention to use QR Code payment except perceived risk which was noted as ($\beta = -, 124$). It means that the relationship is insignificant on the behavioral intention of consumers

Ozkaya, et al (2015) This study was conducted in the US and the data was collected from the University Students to know the awareness and the factors motivating the consumers to scan the QR codes. The finding suggested that Practical users who are eager to purchases products use QR Codes more frequently than experimental users whose aim is only socialization and entertainment. Ownership of electronic devices also has an effect on the user intention to use the QR Codes and those who have more electronic devices were found more scanning QR Codes. The perception of the early adopters was found to be negative about the QR use. The relationship of perceived usefulness with the QR code usage was found insignificant, similarly the age and ethnicity relationship was also found not found a significant one.

Monica et al (2015) The study was conducted to know the consumers' perceptions about the QR Codes. Result of the study indicates that incentive has a great effect on the perception of consumers about QR codes and the females have greater inclination to QR Codes than males. The relationship of software, traffic and perceived benefits with consumers' perception about the QR Codes were noted as insignificant.

Hemant Bamoriya (2014) carried out study in India and japan and the objective of the study was to know about the QR Codes based marketing in both countries. The findings concluded that there is not only positive relationship between culture and beliefs but also in belief and intentions. The relationship of media and on campaign instructions was notes as significantly moderating.

S Cox, R Shiffler (2014) The study was conducted in the US and it was found that most of the respondents were aware about the QR codes. The awareness of the male was more than the female and the young respondents had more knowledge then the older. Most of the respondents found the use of QR codes as easy one but majority of the respondents also found not willing to use the QR Codes again. The basic reason of not using the code in future could not be traced but the author thought that maybe they did not found the QR as useful or the contents of the website were not interesting and could not induce them to use in the future or may they need some more reward for scanning the QR Codes

Ertekin, et al,(2014) This study was conducted in the US and the aim of the study was to know the motivation factors to use QR Codes on magazine ad. The study suggested that not only the utilitarian benefits but the hedonic benefits also motivate the consumers to scan the QR codes. The study suggested that consumers can be motivated by providing promotion offers by the firms on scanning QR codes. They also showed interest to have relevant information about the product in the ad as well as the customer's reviews. Entertaining is the other important motivating factor for scanning QR Codes. The QR Codes should be printed on magazine in appealing and exciting way so they can also provide entertainment to the consumers.

José Freitas Santos (2014)The study shows that the consumers have awareness about the QR codes but they are using mostly for getting information about the products or visiting web site of the company and less for purchasing some products. The attitude of the respondents to use the QR codes in the future was noted as positive and they were willing to use the same in future. They found it simple and easy. The financial position was noted as the main hurdle in adoption of the QR codes as most of the respondents have no smart phone which is the basic device for scanning QR codes.

Mira et al (2014)The study shows that the consumers have great interest in virtual shopping as they consider it as simple way of shopping through scanning of QR codes. The respondents also show their fear about the possible risks involve in shopping via smart phones. The users prefer to purchase electronic items daily use items, shoes handbags movies tickets via QR Codes.

Bamoriya, H. (2014). This study was conducted to know belief and behavioral intentions of the consumers about QR codes in marketing between two different cultures (USA & Japan). The study also tries to know the moderator effect of Media used by the QR Codes, Location of the QR codes and on campaign instruction on belief and behavioral intention, the finding of the study found that there is positive relationship between culture and belief and as well as between belief and behavioral intention.

Sneha, Narang (2013) This study was conducted in emerging markets of China and India. The aim of this study was to know the influence of QR on consumers' attitudes regarding attitude about advertisement encoded in the QR, attitude about the brand in the QR and intention to purchase the products which are using QR codes in their promotional activities. They suggested that product involvement has a significant effect on all of the three variables (Attitude towards Advertising, attitude to words brand and purchase intention). It was also noted that the attitudes of the consumers for high involvement products were significantly low than the attitudes for low involvement products.

Jay Sang (2013) the study was conducted in the US retail sector to know the consumer intention to adopt QR codes. Uses and gratifications theory and TAM model was adopted to know about the consumer innovativeness market mavenism. The result found negative effect of the innovativeness trait of consumers while other variables like perceived usefulness, ease of use, market mavenism and enjoyment were found significant to the intention of adoption QR code

Jung, et al (2012) It was an empirical study conducted in the US. The influential factors for the intentions to use QR advertising were noted as perceived information value of QR Codes, entertainment and perceived ease of use respectively on the basis of importance. It was also noted that those who have prior experience of using QR Codes in advertising will like to use it in the future also.

Dong, et al (2012) This study was conducted to make prediction of the consumers' intention to use QR codes with the inclusion of interactivity and quality is basic inducing factors. The result of the study found that user intention and behaviors are greatly influenced by the quality of the QR codes. The perception regarding interactivity was also found a good predictor for the behavioral intention relationship of perceived interactivity was found significant as moderator as well as mediating

Shintaro (2011) The aim of the study was to know the use of QR Codes as promotion tool. The result indicates that QR Codes are mostly used by the print media and most of the promotion QR codes were seen in magazines, flyers and handouts, and newspapers. Service sector was found the most important category where the QR codes are used. Contents encoded in the QR Codes were analyzed and most of the QR Codes (85%) provided information about the web site brand and other related facts and figures of the firm. Most of the respondents reply that they scan the bar codes as they expect to get some sort of promotional incentives for example discount coupons, sweepstakes, or product samples. Regarding the best place of Scanning QR codes was mentioned by the respondent's home and usually they avoid from it in streets and roads.

Okazaki et al (2012) This study was conducted to know the QR code mobile promotion by using the effect of social anxiety and social involvement on adoption of QR codes. The scenario method was used and the result of the study shows that there is a strong interaction effect of social anxiety and social involvement with regard to protect and fabricate personal particulars.

Sago, Brad (2011) This study was conducted to know the usage level and effectiveness of QR codes among the college students in the US with perspective of Integrated Marketing Communication, the study found that there is a lack of knowledge and awareness about the QR Codes among the students. A strong relationship was existed between interest and willingness to use QR Codes in future. The males were noted as dominated compare to the females in the interest in QR codes and the likelihood.

QR Codes awareness in Pakistan. Pakistan is a developing country and its telecom sector is considering one of the fastest sectors in the Economy. There were 136.489 million users in December 2016 and at the end of January it reached 137.095 million an increase of 0.606 was noted during the period of one month. Report of Newzoo's Global Mobile Market Report in April 2017 the percentage of population in Pakistan having smart phone is 9.2%

The sharp increase in use of smart phone in Pakistan also increases the trend of QR Codes by retailers as well as advertisers. This research will try to understand the extent of adoption of QR Codes by smart phone users in Pakistan.

The Rogers (2003) model of adoption will be use to know use of QR codes. Rogers (2003) adoption model consist knowledge, persuasion, decision/implementation, and confirmation. It will be try to get the following facts about QR codes through this model.

1. How many consumers heard about the QR Codes (knowledge)?
2. How many users of smart downloaded the QR software (persuasion)?
3. How many consumers use the software of QR Codes to scan (decision/implementation).
4. How many users give indication to continue the scanning of QR codes in future (confirmation).

Methodology: The data was collected from the students of Peshawar University Kpk Pakistan through questionnaires 300 questionnaires were distributed and 280 questionnaires were found completed.

Knowledge (awareness): The analysis of the data showed that knowledge of QR Code is high in the smart phone users and 85% of the respondents replied in positive when they were asked about the QR codes. Most of the respondents replied they have seen the QR codes mostly in print media. As men have great exposer than women in Pakistan so men percentage of men who have seen QR Codes was high than the women. Age also has a role and young respondents have more knowledge than the older one

Persuasion

The persuasion step of Rogers (2003) adoption model was applied as how many respondents have downloaded the QR reading software on their smart phone. The number of smart phone users who downloaded the QR Code reading apps was 60% of total respondents.

Decision/Implementation: The 3rd step of the model is decision to use the innovation after persuasion step. In our research we tried to know this step by knowing the number of smart phone users who have downloaded the software and they have used for retrieving any QR Code at least once;51% of the respondents who downloaded the apps replied in positive that they have used once in life for scanning QR code.

Confirmations

The confirmation step of the model was used to know that how much respondents have the intention that they will also use the QR codes again who have tried once in life , 56% of the respondents replied in positive that they will use the QR codes also in the future, while the remaining respondents refuse to continue in future as they could not found it in proper location or they did not find it useful as the embodied text images or URL was not modified for mobile and there were also no incentives for scanning the codes from the sponsor organization

Conclusion

The study showed that QR codes becoming popular among the smart phone users and they have keen interest to scan the codes, but the sponsor should provide some sort incentives like cash discount to the scanner of the QR codes during purchase. Result also indicated that the location of the QR should be suitable as if the QR code is on the movable car or truck or any other vehicle as scanning of QR code on move is very difficult.

References

- Ashford, R. (2010). QR codes and academic libraries: Reaching mobile users. *College & Research Libraries News*, 71(10), 526-530.
- Almehairi, M., & Bhatti, T. (2014). Adoption of virtual shopping: Using smart phones and QR Codes. *Journal of Management and Marketing Research*, 17, 1.
- Bamoriya, H. (2014). Cross-cultural exploration of consumers' beliefs and behavioral intentions towards QR codes in marketing: an experimental study in India and USA. *Acta Universitatis Danubius. Economica*, 10(4).
- Bamoriya, H. (2014). QR code based marketing in India and Japan. *Singidunum Journal of Applied Sciences*, 11(2), 20-29.
- Cox, S., & Shiffler, R. (2014). Extent of QR Code Adoption by Consumers. *International Journal of Business, Humanities and Technology*, 4(6).
- Ertekin, S., & Pelton, L. E. (2014). An empirical study of consumer motivations to use QR codes on magazine ads. *American International Journal of Contemporary Research*, 4(5), 47-55.
- Eyüboğlu, K., & Sevim, U. (2016). Determinants of consumers' adoption to shopping with QR code in Turkey. *Journal of International Social Research*, 9(43).
- Fine, M., & Clark, M. (2015). Here to stay or a thing of the past? A study into the perception of quick response codes. *Journal of Digital & Social Media Marketing*, 3(2), 189-199.
- Jung, J. H., Somerstein, R., & Kwon, E. S. (2012). Should I scan or should I go? Young consumers' motivations for scanning QR code advertising. *International Journal of Mobile Marketing*, 7(3).
- Lombardi, A., Carfora, V., Cicia, G., Del Giudice, T., Lombardi, P., & Panico, T. (2017). Exploring Willingness to Pay for QR Code Labeled Extra-Virgin Olive Oil: An Application of the Theory of Planned Behavior. *International Journal on Food System Dynamics*, 8(1), 14-31.
- Nikou, S. A., & Economides, A. A. (2016). An Outdoor Mobile-Based Assessment Activity: Measuring Students' Motivation and Acceptance. *International Journal of Interactive Mobile Technologies*, 10(4).
- Ozkaya, E., Ozkaya, H. E., Roxas, J., Bryant, F., & Whitson, D. (2015). Factors affecting consumer usage of QR codes. *Journal of Direct, Data and Digital Marketing Practice*, 16(3), 209-224.
- Ryu, J. S., & Murdock, K. (2013). Consumer acceptance of mobile marketing communications using the QR code. *Journal of Direct, Data and Digital Marketing Practice*, 15(2), 111-124.
- Sago, B. (2011). The Usage Level and Effectiveness of Quick Response (QR) Codes for Integrated Marketing Communication Purposes among College Students. *International Journal of Integrated Marketing Communications*, 3(2).
- Santos, J. F. (2015). QR Code adoption and mobile marketing practices in Portugal: An empirical study. *International Journal of Marketing, Communication and New Media*, 3(5).
- Okazaki, S., Navarro-Bailón, M. Á., & Molina-Castillo, F. J. (2012). Privacy concerns in quick response code mobile promotion: The role of social anxiety and situational involvement. *International Journal of Electronic Commerce*, 16(4), 91-120.