Considering the Beacon technology, a Green and eco-friendly revolution in the Moroccan Commercial Malls for a proximity marketing strategy

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Abstract. Proximity marketing is becoming an important strategy that enables linking retailers and consumers to enhance the customer experience. This marketing action aims to consider the customer location to provide significant information at the right moment and space. Beacon technology is a real advancement in this domain of study. Beacons are a small device-wireless communication that allow detecting the presence of a person in the store through the low-energy Bluetooth signals and deliver impressive offers to visitors' mobile phone from their area or product proximity inside the store. The objective is to offer an in time individual experience and interact efficiently with visitors. This paper presents a quantitative empirical study that aims to analyze the results of embodying the beacon technology in the large Moroccan commercial malls. For this, an online questionnaire was prepared to assemble consumers' feedback regarding the use of this proximity marketing action. The results of this empirical study will help notifying marketers in their strategies by coming up with quantitative data collection that analyzes the customer perception of this technology, consequently, Moroccan malls may consider this relevant proximity marketing strategy in the future decisions to improve the customer experience for a long-term loyalty.

Keywords — Beacon low Bluetooth technology, Customer satisfaction, data visualization, location, Proximity Marketing strategy.

1 Introduction

The competitive tension between brick and mortar and online retailers is still being in progress [1], retailers keep developing their strategies to enhance their market ranking position [1]. Proximity marketing has newly come into the fore as a very important area of marketing forms by transforming and becoming a part of people’ everyday lives [2]. It requires using wireless location-based digital technological tools such as Bluetooth and Radio Frequency Identification RFID [2]. Considered to be as an advertising technique, proximity marketing...
may help business stores and commercial malls to improve both sales, customer satisfaction and loyalty. This could be achieved through analysing customers’ profiles and datasets to satisfy efficiently their expectations and to target well their promotional communications. It is expected that proximity marketing helps in terms of personalization and mass customization since it is the most effective emerging marketing form that retailers can benefit from to attract and build a strong customer relationship. An US survey addressed to retailers that have implemented proximity marketing into their strategic policy revealed a 9% boost in profit as well as an increase of 175% in return on investment. As a component of proximity marketing, beacon technology is estimated to impact and shape the consumer satisfaction and loyalty. The application of beacon technology is still in the beginning phase. It is an emerging area of work where much experimental research could be done on its embodiment in multiple sectors. In this paper, we will examine this topic in the following way: first, we will shed light on the theoretical background of proximity marketing and beacon technology to come up with a conceptual framework, then to examine and analyse the benefits of the implementation of beacons and propose actions for different retailers within large commercial surfaces, we conducted a survey with Moroccan consumers so as to examine if they will appreciate this technology in Moroccan Malls. The results and analysis of this empirical research may help improving the usage of beacons in other different places such as airports, museums and so…etc.

2 Materials and Method

2.1 Research methodology and data collection

To explore people’s opinion toward the use of beacons technology in the Moroccan Malls, an online questionnaire was conducted for this empirical study. The questionnaire was posted in different social media platforms in both French and English languages to reach many participants. The empirical study was conducted between 1st September till 28th September 2023. Through an online questionnaire, we reached 88 of participants who answered completely and correctly the questions. The gender was balanced as follow, 62.5% represented women participants and 37.5% were male participants. 95.5% were at the age between 18 and 35, 3.4% were between 36 and 50, finally only 1.1% were more than 50 years old. Also, 50% were students, 30.7% were employees, 12.5% were civil servants, 3.4% were unemployed and 3.4% claimed having other employment status.

3 Theoretical background

3.1 Proximity Marketing

The word proximity used to be employed to define the geographical boundaries between companies, through the cooperation, companies can enhance the knowledge production learning and transferring. Proximity Marketing refers to a localized wireless communication advertising based on a specific area. The location recognition of consumers gets through wireless components such as: Bluetooth Low Energy, GPS, Near Field Communication, Wi-Fi and radio frequencies.
Since 1920, geography was placed by research as a promoting determinant of commercialization by most researchers \[5\]. To embody the use of customer’s geographical data systems, marketing offices held back until 1990 \[5\].

Proximity marketing consist in diffusing marketing content according to a particular location. In this sense, Dushinski (2009) explains that businesses can accomplish the proximity marketing technique based on the use of a consumer’s location or place either through global positioning system (GPS), mobile tower, wireless access point, Bluetooth, or any alternative near-field communication tool \[9\].

To guide customers for a precise location or product, proximity marketing offers the necessary information and insight to the customer \[3\]. As well, boosting the rate of sales can be achieved through delivering a special offer to the appropriate consumer segment in order to complete a transaction \[3\].

Being a part of the mobile marketing roadmap, proximity marketing can generate multiple benefits. Actually, according to a survey guided by Deloitte, smart mobile devices motivated the in-store customer buying almost about $600 billion up from $159 billion in 2012 \[8\]. The mobile marketing consists of targeting the frequently connected consumers through an everywhere network \[8\]. Thereby, the mobile marketing fosters positive effects as claimed by Krum (2010) such as improving the individualized marketing relationship, gathering the target customers, and touching up the return of investment related to the brand cognition and perception.

In light of this, the proximity marketing provides advantages for a better customer experience. It enables the access to detailed information about a brand just few seconds, which refers to the enhancement of the real temporal dimension \[5\]. Also, proximity marketing facilitates sharing information related to the product, the promotions, discounts and so on. As Chris Anderson (2006) states, we are moving from the age of information to get in the phase of recommendation \[4\].

3.2 The Beacon technology

In the year of 2013, a burst of euphoria between the marketers and retailers specifically took place with the announcement of beacon technology \[10\], enabling them to deliver notifications to customers indoor stores \[10\]. Beacon can be defined as a small physical device which uses Bluetooth low energy \[11\]. It is a low-cost technology from $5 to $30 with a reduced energy expected to operate for a duration of two years using the coin-cell batteries \[11\]. Beacon is able to send a notification information to smartphone in the midst 100 meters \[11\].

The beacons are considered to be small computers that integrate Bluetooth radios through which signals can be transmitted \[12\]. Among a close proximity, Bluetooth equipped devices pick those signals \[12\]. Once the beacon detects the smartphone Bluetooth equipped device, it sends signal to the smartphone applications that send back data based on the location. A predefined responses can vary from offers, coupons to interactions with the application \[12\].

Being a prominent technology, beacons tend to target consumers at the place or area where they do their in-store shopping \[10\]. Indeed, Bluetooth is Persistently Incorporated in user experiences such as wireless headphones and wearables \[10\].

Beacons help the store assistants by rendering the customer service flexible as well as facilitating the waiting line management as the example of Hudson’s Bay in the Netherlands and John Lewis in the United Kingdom \[10\].

Also, beacons provide the ability to gather data and use it from a better customer experience. The collected data offers a visualization and clear insights that couldn’t be obtained through...
Thus, the beacon technology enables retailers collecting customer and shopping behaviour information. By making a reference to Fraunhofer MOEZ business model framework, beacons are able to interfere with different parts of the retailer’s business model. It is mainly based on five relevant features. First, value proposition related to product and or service offerings and how they are priced, second; value communication through channels, third; value creation generated from skills and key sources, fourth; value capture which stands for business strategies related to revenue plans, controlling cost, and profit allocation.

4 Results

4.1 The appreciation of beacon technology

Figure 1. Beacon technology a part of proximity Marketing for a better customer experience (by authors).
After a general description of what is the beacon technology and its utility, a hypothetical situation of using beacons in Moroccan commercial malls was introduced to evaluate peoples’ interactions with it. A total number of 77.3% supported this usage, 15.9% had a neutral position, only 3.4% considered the situation as not being important and finally solely 3.4% perceived it at not being important at all.

Fig. 3: Results showing how many people support the idea of implementing beacons on Moroccan Malls.

To evaluate what may interest people more, we presented the following advantages of beacons and analyzed what actions to consider while implementing this technology. Actually, 72.7% affirmed that they are curious to receive discounts, 48.9% were interested to receive customized promotions, 35.2% wanted to get the product details and information, 28.4% were looking to optimize their shopping experience and finally 21.6% supported the in-store assistance.

Fig. 4: Analysis results to present what people are waiting from this beacon implementation.

4.2 Familiarity with the online shopping
Fig. 5: Results presenting the rate of people that are familiar with online shopping.

To deepen the evaluation, we asked participants about the reasons behind their use of mobile applications. Most of them supported shopping online (59.2%), searching for promotions (57.7%) and comparing prices (47.9%). Also, an average proportion claimed that they use mobile applications to find product information (40.8%) and facilitate the in-store navigation (38%). 7% of respondents confirmed other usages.

Fig. 6: Results showing reasons why people opt for online shopping.

The study estimated that 86.4% of respondents are interested in a commercial mall using the technology of beacons, however only 13.6% refused the idea.

Fig. 7: Results presenting how many people are interested in Moroccan malls using the beacon technology.
4.3 Worries concerning the use of beacon technology.

To examine what could make people worried about while using this technology, we initially asked if they do have in fears or worries. A total number of 63.6% of participants affirmed that they do have a fear, while 36.4% responded by no.

Fig. 8: Results presenting how many people are interested in Moroccan malls using the beacon technology.

The most worries are related to data security (50%) and respect for user privacy (30.9%), however only 13.2% fear the complexity of usage and 5.9% claimed other reasons.

Fig. 9: Results analysing reasons that make people fear the usage of beacon technology.

5 Discussion

Proximity Marketing remains a field of study to overlook more and consider for marketing actions. The paper presented an overview of the concept of proximity marketing and how it influences positively the customer experience. Considered to be one of the location recognition methods, beacon Bluetooth low energy is estimated to have a positive impact in the customer relationships.

Conducting a study to introduce this technology in the Moroccan Malls, positive feedback from participants shows off that a high proportion are interested in this experience. In fact, this technology facilitates the navigation shopping in this very large commercial space where people couldn’t be able to notice all details without the help and assistance of this relevant technology. However, the only fear that people are mostly worried about are related to data security and user privacy. Here comes the role of communication that must clear up how the...
6 Conclusion

To sum up, Moroccan malls and other large commercial spaces may look at this study analysis so as to give a try to the implementation of this technology and consider it for their future marketing strategies.

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