
GEO-FENCING AND IT'S IMPACTS ON RETAIL BUSINESS IN BENGALURU

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ABSTRACT

The retail business has started to use geo-fencing technology to attract their customers, as the customers enter the particular area or the boundary, they get push notifications and ads about the business. The Indian Retail Industry has become one of the most dynamic industries. It almost generates ten percent of the country's GDP, and India is the fifth largest retail destination globally. This is done through collecting secondary data and descriptive data. This study is undertaken to ascertain the geo-fencing and its impacts on the retail business, explore more about the way geo-fencing works and study the retail business in detail. Many retail businesses are using geo-fencing and it has helped them to grow their business. Geo-fencing has become the mode to reach their target customer.

I. INTRODUCTION

Geo-fencing technology allows businesses to reach and attract their target customers by providing virtual boundaries. As the target customer enters the boundary or the location, the stores will activate ads or push notifications, they intend to attract the target customers within that boundary or location to visit their store. A geofence is a virtual boundary that surrounds a physical location. A geo-fence could be dynamically formed (such as a radius around a spot) or match a set of established bounds (such as school zones or neighborhood boundaries). The word "geofencing" refers to a technique that uses GPS coordinates or RFID (Radio Frequency Identification) signals to create a virtual barrier in space and then triggers activities based on that boundary. A geofence is a portmanteau word that combines the words geographic and fence. When a geofence is crossed, the user's actions can include sending push notifications, emails, SMS, or more elaborate applications with programming instructions. Geofencing is based on a GPS, however, RFID chips and M2M (Machine-to-machine) connectivity can also be used. Geofencing is the ability to identify when a smartphone enters a predetermined area by activating a trigger on the device. Indoor and outdoor geofences are also possible, and Wi-Fi is one of the most effective ways to define the area.

Retailers can build a virtual barrier around or near their store using smartphone apps, which will trigger an automatic response if a customer enters it. It's a terrific method for brick-and-mortar merchants to add extra value to their retail space, in addition to the automatic marketing potential assisting them in competing with online sales. Requests immediate feedback from customers on their shopping experience it's from product reviews to feedback on customer experience, everyone understands how important customer reviews are for businesses and shops. Retailers can use geofencing to ask customers for immediate feedback on their previous store experience via push notification or an app message. This informs merchants on how they may improve and provides valuable social proof for brand recognition. It also makes customers feel truly cherished and appreciated, resulting in more positive brand perception and overall experience. It generates accurate data analysis on customer behavior that is by knowing exactly how the customers interact with the retail space is vital for improving the customer experience.

Due to the introduction of various new businesses, the Indian retail industry has become one of the most dynamic and fast-paced industries. It generates more than 10% of the country's GDP and employs about 8% of the workforce. In terms of retail, India is the world's 5th largest destination. The Indian retail industry has become one of the most dynamic and fast-paced industries as a result of the entry of many new enterprises. India is the 5th largest retail destination in the world. Personal care products are the products that are been used by consumers on daily basis. These types of products are called FMCG (Fast Moving Consumer Goods). The manufacturer's main responsibility is to produce, distribute and market their products to their customers. Geo-

fencing reaches the target audience with the usage of smartphones increasing by the day, mobile marketing opens up plenty of new opportunities for marketers to target customers in real-time throughout the buying process. With geofencing, an extraordinarily effective technique that harnesses the potential of location-based marketing, marketers continue to take full advantage of this feature. While employing geolocation for advertising is not a novel notion, nor is it confined to mobile users, it has increased in popularity in tandem with the tremendous increase of smartphone usage.

II. LITERATURE REVIEW

- Hambleton, H. (2021, October)- In this study, the author has spoken about the ways retailers can use geofencing to give good customer service. They are with in-store product search, can add value and make the purchase easier, Send the consumers relevant, real-time promotional offers. Request immediate feedback from customers on their shopping experience.
- Goicochea, E., (2019, December) in this article the author has specified why is geo-fencing marketing important to the business. Geofences can be used to set up physical locations. When users enter, leave, or stay in specified locations, send contextualized notifications. Measure marketing efficacy and enhance performance with location analytics data.
- Prasad, N., Swetha S. (2019) in this article the authors have spoken about the location service that has been provided. The geofence has emerged as an application that aids in the protection of the machine and the tasks that must be completed both within and outside the fence. This undoubtedly aids the employer in keeping track of the gadget's music and the jobs that are being carried out from the gadgets, so increasing the efficiency in the experience that the system is being used properly.

III. METHODOLOGY

The methodology is a contextual framework for research that is coherent and logical and is based on views, beliefs, and values. It directs the research of the chosen option. It includes a hypothetical investigation of a collection of strategies and standards associated with a piece of data to determine whether tactics used by contrasting controls vary depending on their anticipated improvement. This research is done based on Secondary Data. This methodology employs qualitative and exploratory research. The current research has reached a reasonable conclusion. The descriptive method is used to do the investigation. The investigation necessitates a large amount of data. What it takes for an entrepreneur to become famous and to achieve his/her goals even when there are gender effects. It will need deep analysis of the data and situation so that the study becomes complete.

IV. SCOPE OF THE STUDY

- The study is confined to Bengaluru city, especially on textile and personal care products.
- To understand geo-fencing and its application in the select retail business.
- To ascertain the geo-fencing and its impacts on the retail business.
- To explore the limitations of geo-fencing.

V. PURPOSE OF THE STUDY

This study is undertaken to know about geofencing and its impacts on retail business. Geo-fencing helps the business to reach out to their target customers, it sends push notifications, ads, and PPC ads (pay-per-click). Since businesses have had a consistent flow of in-person shoppers, a lot has changed, but change also brings opportunities. While businesses can no longer rely on cookies and mobile advertising IDs to drive foot traffic and purchases, they may use location-enhanced data to acquire the same in-depth understanding of consumers' actions and habits. Geo-fencing sets up physical space. It targets the customers at the right and proper time. With the help of GPS, Bluetooth, and beacons, one can track a customer's location, and there are three ways to use this technology to target them: geotargeting, geofencing, and beaconing.

It directs customers to the particular shop according to their point of interest. It helps in retargeting the target customers. It intends to reach more customers. It is used to gain a more competitive advantage. The exact data will be collected.

VI. RESULTS AND DISCUSSION

Geofencing is a technology that requires the user's permission or participation. Naturally, if the feature is not enabled on the user's device, no outcomes can be achieved. By nature, the human spirit is averse to any type of monitoring, which makes Geofencing a privacy offender. In most cases, this leads to consumers shutting off the feature. When a contact's mobile device enters or leaves the geofence, they may get a message. A geofence location is a circumscribed area around a certain geographic location. When a contact's mobile device enters or leaves the geofence, they may get a message. Use an address or a map pin to set the geofence location in Marketing Cloud Mobile Push. Include a description of the geofence's size, which is the circumference of the circular barrier to contact those who are visiting a new city or attending an event, utilize geofence messaging.

In a location-based service called geofencing, a mobile device or RFID tag that enters or exits a virtual boundary created around a specific geographic location, or "geofence," will cause an app or other software to use GPS, RFID, Wi-Fi, or cellular data to carry out a previously pre-programmed action. A geofence's configuration can cause push notifications on mobile devices, text messages or alerts, targeted social media adverts, tracking of vehicle fleets, the disabling of particular technologies, or the delivery of location-based marketing data.

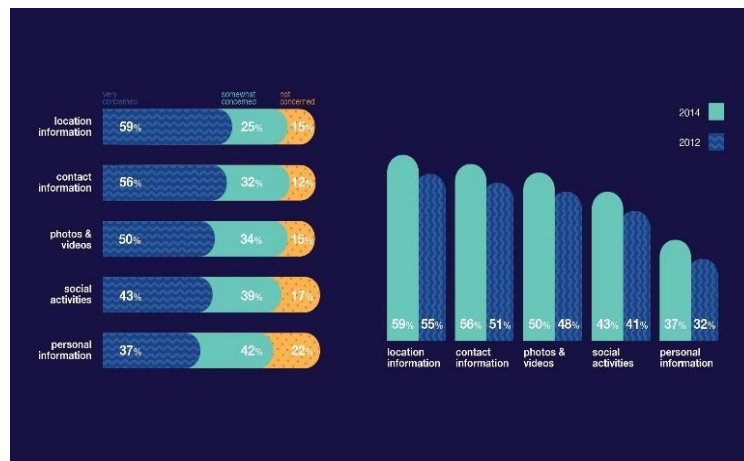


Figure 1: Geo fencing illustration and working

VII. IMPACTS OF GEO-FENCING ON RETAIL BUSINESS

With the use of geo-location, an individual can go from a designated market area to zip to city. It helps the business to attract many customers as they enter the boundary. There is no restriction on the geo-fencing size. It has helped the marketers in performing better. Developing Strategic Creativity. Geofencing may be used for a lot more than just sending out notifications to customers in the vicinity. The trick is that when purchasing and setting up a geofencing region, businesses are not confined to using their locations. This enables small businesses to target customers in unique places that are relevant to their industry. A small wedding planning firm, for example, may purchase geofencing around wedding-related venues to trigger notification advertising for the business while potential consumers are touring places. If the company is feeling especially smart, the company can even build up a geofencing zone around a competitor's location. Customers will see a discount, special promotion, or general information message for the business instead of competitors, thereby driving traffic away from competition and directly toward the company. Because the possibilities for geofencing are unlimited, small businesses can get creative to create new opportunities. Geofencing is a fantastic tool for marketing and advertising. This strategy enables businesses to target consumers in critical geographic areas of interest with appealing offers such as specials, promotions, and company information. Because of its financial flexibility and simple consumer targeting procedures, geofencing is even more effective for small firms trying to enhance business and customer awareness.

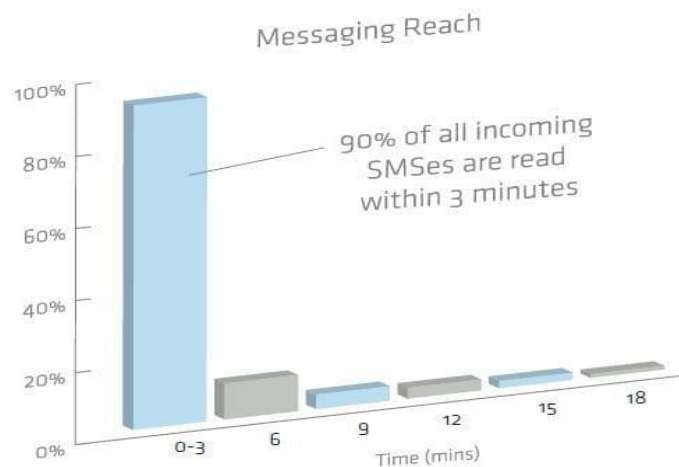


Figure 2: Messaging Reach

VIII. CONCLUSION

Almost all retail businesses are using geo-fencing technology, which has helped the business to reach the target customers. Geo-fencing has made the job easy for the business by reaching the customers virtually by ads, push notifications, pay-perclick ads, etc. A geofence is a virtual barrier that sends alerts whenever someone enters or exits the "fence." Businesses are using this technology more frequently to raise brand awareness, enhance consumer interaction, and boost revenue.

IX. REFERENCES

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