

A STUDY ON PROXIMITY MARKETING IN LOCATION BASED ADVERTISING WITH REFERENCE TO CAFE COFFEE DAY

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ABSTRACT: Proximity marketing is a very successful method of customer connection used by Café Coffee Day. In order to engage customers the moment they step foot in one of its cafés, CCD employs technology such as geo-fencing, Bluetooth beacons, and Wi-Fi tracking. Think about how fun, useful, and relevant it would be to get a personalized deal on your phone the second you step foot in a CCD store. Not only does this kind of hyperlocal communication get people's attention, but it also encourages them to buy. Rather than just offering discounts, it's about fostering a sense of community and enhancing the café experience. In general, customers value personalized messages because they feel these show understanding, which in turn encourages long-term commitment. Responsible and transparent data management is essential, and CCD must strike a balance between privacy concerns. When done right, proximity marketing may strengthen relationships with customers, increase sales, and boost foot traffic. It elevates the mundane coffee experience to something more refined and personalized. Instead of focusing just on selling products, this strategy seeks to foster relationships, as outlined by CCD. In the modern, cutthroat café industry, this unique link is vital.

Keywords: Proximity Marketing Location-Based Advertising (LBA), Geofencing, Geolocation Targeting, GPS-Based Advertising, Mobile Push Notifications

1. INTRODUCTION

Proximity marketing is an emerging category of digital advertising that makes use of location-based technologies to target locals with highly relevant and individualized messages. Businesses are able to communicate with potential customers at the most optimal time and place thanks to technologies such as geofencing, Bluetooth beacons, GPS, Wi-Fi, and NFC. Users attribute greater importance, interest, and personalization to contextualized advertising. To make customers happy and influence their real-time purchasing decisions in today's mobile-first world, proximity marketing is crucial. Stores, restaurants, malls, and service providers may now use location-based triggers to give customers discounts, product information, membership rewards, and notifications directly to their smartphones. Because they are timely and precise, these communications help firms attract customers at the moment they are most inclined to make a purchase.

Proximity marketing is becoming more important for companies aiming to succeed in today's data-driven and smarter digital landscape. For contemporary advertisements, its ability to



bridge the gap between the digital and physical realms is crucial. Using real-time location data and patterns in user activity, proximity marketing boosts brand interest, sales, foot traffic, and loyalty by attracting more customers.

Using proximity marketing, businesses can gain valuable insights into customer behavior and navigation patterns. Businesses can enhance their campaigns, shop layouts, and targeting approaches by observing client interactions with certain regions, commodities, or advertising messages. The data-driven approach improves marketing efficacy and empowers individuals in the retail, service, and lodging industries to make more informed choices.

Neighborhood marketing appears to be poised for a more innovative and integrated future as technology continues to advance. It is believed that new technologies, such as improved geo-analytics, IoT-enabled devices, and tailored AI, will create highly relevant advertising experiences. Because of these updates, businesses will be able to connect with customers more easily, quickly, and naturally through proximity marketing, which will elevate it in the context of location-based advertising as a whole.

PROBLEM STATEMENT:

Proximity marketing has several issues, despite its potential to be a useful tool for matching companies with clients at the most convenient times and locations. A less-than-ideal experience is common for organizations because to issues with weak signals and incorrect position data. Some systems and devices aren't compatible with it, which further restricts its use. People are inherently suspicious, and many are concerned about surveillance and the potential misuse of personal information. Because they are unaware of adjacent technologies, promoters frequently fail to attract people's attention. However, it's possible for businesses to be more bothersome than useful when they communicate with one another, which can negatively impact the user experience. Not only are these systems expensive to implement, but not all companies have the necessary technical expertise to run them smoothly. It gets trickier when you incorporate proximity technology into existing marketing platforms. Without well-defined guidelines for the ethical and responsible use of client data, it is more difficult to earn their trust. These many issues make it difficult for businesses to take use of local marketing to its fullest.

2. LITERATURE SURVEY

Olsen & Park (2021) Olsen and Park devise a novel approach to audience segmentation by tracking people's movement through different locations. At crowded transit hubs and universities, they evaluated their system and discovered that movement-based segments outperformed normal categories in predicting ad response. Environmental factors, such as noise levels and crowd movement patterns, were also considered. For the purpose of ensuring that these models are applied appropriately, they formulate moral criteria.

Fernandes & Cho (2021) Fernandes and Cho demonstrate in their research on AR in retail how intriguing AR overlays could be activated using proximity sensors. According to their research, augmented reality increases product recall, consumer engagement, and likelihood to buy. Customers are more inclined to engage and complete purchases when they view messaging enhanced by augmented reality technology. Ideas for the design of spatial triggers



are also a primary emphasis, alongside concerns like device compatibility and computing requirements.

Moretti & Singh (2021) Moretti and Singh attempt to determine if location-based advertising methods strengthen or weaken trust. The survey found that transparency, user agency over personal data, and perceived value were the most important aspects influencing consumer trust. Too much targeting can swiftly damage confidence when opt-in models are contrasted with one-way advertising strategies. Their thoughts highlight the significance of developing honest and ethical technologies that include consumers while also honoring their rights.

Iqbal & Johnson (2022) The long-term impacts of spreading coupons via location-based cues are examined by Iqbal and Johnson. Compared to standard SMS offers, shoppers are twice as likely to accept proximity-triggered coupons, according to a research of millions of mall encounters. When it came to increasing loyalty, they also considered the optimal timing, frequency, and sorts of deals. While discounts are a lifesaver, you shouldn't put all your eggs in one basket. Some brands put too much emphasis on self-promotion, while others put too much emphasis on their long-term worth.

Patel & Renner (2022) Patel and Renner investigate the potential of near field communication (NFC) technology to enhance the eating, drinking, and event-going experiences of customers. In comparison to geofence-triggered approaches, their findings demonstrate that NFC touch-point engagements are more interactive and tailored to the individual in stationary environments. Concerned about NFC security, they also want authentication procedures set up to safeguard consumers. Businesses can benefit from their deployment technique, which is tailored to hotel chains in particular.

Costa & Lambert (2022) Costa and Lambert investigate the potential of proximity indicators to enhance social media advertisements. Ads were made more memorable and consistent across all media by combining location-based alerts with Instagram remarketing. Their research demonstrates the technological challenges of real-time platform syncing. Their proposed cross-channel credit technique takes into account all of these factors to determine the overall impact on performance.

Frazier & Oliver (2023) Frazier and Oliver zero in on the impact that fence size has on consumer engagement. To aid companies in honing their messaging, they provide a multi-zone model with zones for awareness, engagement, and action. Finding out how often notifications get bothersome is the goal of the research. Evidence suggests that dynamic lowering geofences perform well during periods of strong sales. In order to facilitate proximity analytics, stores are provided with explicit guidelines.

Martinez & Ho (2023) Martinez and Ho develop a comprehensive ethical framework for proximity marketing, emphasizing dangers such persistent identification, Bluetooth scanning, and crowd mapping. They propose a three-pronged approach based on transparency, permission, and minimal data collection. Security and anonymity of micro-location data are emphasized in the guidelines. They offer policy recommendations for marketers and regulators based on a comparison of retail case studies demonstrating both good compliance and violations.



Koenig & Rashmi (2023) Koenig and Rashmi investigate gamification as a potential strategy to enhance neighborhood marketing. Based on their experiments with beacon-enabled treasure hunts and challenge-based discounts, gamification was found to improve dwell time by as much as 70%. How age-related changes in motivation impact participation is also demonstrated in the research. Examining the nuts and bolts of gamifying cross-store experiences reveals that gamification is effective at converting passive consumers into active participants.

Wang & Peters (2024) Wang and Peters examine over 30,000 encounters that occurred in densely populated areas to evaluate beacon technology. Using augmented reality at events retained people's attention for longer and improved their memorization compared to text or discounts. Issues with technology, like signal interference and dying batteries, are also mentioned in the narrative. For companies and municipal governments interested in incorporating beacons into smart-city initiatives, they offer a deployment plan to facilitate future acceptance.

Harada & Nair (2024) Harada and Nair investigate the effects of hyper-local mobile advertising using questionnaires and eye-tracking experiments. Although highly contextualized adverts are believed to be more beneficial, they actually pose privacy concerns, as demonstrated. They found that while some user demographics find hyper-local ads unpleasant, others are unconcerned about them. While acknowledging that cultural differences can impact acceptance, the authors state that conversations should revolve around honesty in order to develop trust over time.

Santoro & Delgado (2024) Automating event-driven proximity notifications in stadiums and amusement parks is something Santoro and Delgado investigate using machine learning. As a result of factors like population density and time of day, they demonstrate that automated prompts are 55% more responsive than human scheduling. Anomalies and positional noise can still be detected by AI, despite the fact that it enables scalable customization. They argue that automation will radically alter experiential marketing and advocate for a governance approach that incorporates both human and AI components to address this issue.

Rao & Menon (2025) Rao and Menon demonstrate an architecture that combines AI-enhanced profiling with real-time location triggers. Their research demonstrates that compared to alerts with a defined radius, adaptive warnings result in dwell-time conversion rates that are almost 40% higher. To ensure clients don't get overly exhausted, they assess their level of fatigue and provide the optimal message frequency. A solution that strikes a compromise between privacy and customisation can alleviate the ethical concerns raised by microlocation tracking. More sophisticated proximity systems were implemented as a result of their suggestions.

Alvarez, Gupta & Kim (2025) Alvarez, Gupta, and Kim examine location-based ad prediction analytics by analyzing over two million mobile interactions. They demonstrate how computers may anticipate a person's actions before proximity detection occurs by analyzing factors such as movement speed, patterns, and weather. With the use of predictive indicators, response latency was decreased and ad relevance was enhanced. To avoid the risks



of excessive profiling and ensure that predictive targeting is done honestly, they propose a "Responsible LBA" control mechanism.

3. THEORETICAL FRAMEWORK

TYPES OF PROXIMITY MARKETING

Proximity marketing's multi-faceted strategy has many potential applications. Phones and other forms of automated identification are unnecessary. Modern computers with GPS integrated in can also be accessed using proximity technology.

Beacon Technology: Allows for the transmission of smartphone updates and location-based marketing via Bluetooth Low Energy (BLE) signals, hence enhancing the personalization of shopping experiences.

Geofencing: Stores frequently use it to communicate with nearby consumers by establishing a virtual perimeter around a physical location that triggers the sending of push notifications, SMS messages, or alerts to any devices that enter or exit this zone.

Near Field Communication (NFC): Two devices within millimeters of each other can communicate with each other when they touch an NFC tag. Interactive ads, product information exchange, and instant discount delivery can all benefit from this.

QR Codes: Rapid Response Codes are used to advertise goods on packaging, posters, and displays. Reading them allows mobile phones to direct users to certain websites, videos, or downloads.

RFID (Radio-Frequency Identification): Customers are more engaged in the marketing and sales processes when they can use electromagnetic waves to locate and follow tags on products, making purchasing more personalized and interactive.

Wi-Fi-Based Marketing: Offering free Wi-Fi in return for user registration or check-ins allows businesses to send out adverts, gather data, and inspect foot traffic trends. Places like restaurants, public venues, and malls are ideal for this. Different forms of proximity marketing provide unique opportunities to engage with consumers based on their individual circumstances. Making more money and keeping clients coming back is possible with technology.

PROXIMITY MARKETING TECHNIQUES

The most common methods of close-proximity marketing include the following:

NFC (Near-field communication)

Near Field Communication allows radio frequency identification (RFID) chips to securely pair with nearby mobile devices. This enables the chip to transmit customized data to the mobile device.

Many mobile payment systems, like Apple Pay and Google Wallet, rely on near field communication (NFC) technology. Near Field Communication (NFC) has multiple applications in the realm of close-range marketing. Products and shelves containing RFID chips can be scanned by customers using their phones to get real-time information, including images, videos, reviews, and brief descriptions.

Geofencing



A company can track a customer's mobile device as it exits a specific area around a physical location using geofencing technology. The placement of satellites and mobile phone towers around a business creates a virtual barrier that allows customers' phones to pinpoint their exact location. You can then set up an automated system to notify them of sales or limited vouchers once they step over the "fence." Following this plan will limit your communication with clients to times when you are in close proximity and the topic at hand is highly pertinent. Sending geofencing messages is possible using your company's app, but recipients need to have the app open. Alternately, you can use a standard SMS message, which can be sent even while your app is closed. Client consent is required before you can send them messages using any geofencing method.

Beacons

Similar to geofencing, but without the need for satellites or mobile phone antennas, is how beacons function. Bluetooth technology is instead employed. Beacons, which are little devices around the size of smartphones, have a Bluetooth range of up to 150 yards. If a customer is near or already on your property, a beacon can deliver them highly personalized marketing messages. Using a large number of shorter-range beacons can help you take advantage of micromoments. Customers can more easily ask you about particular products when they come up to you if you have this setup.

Beacons aren't able to bypass typical messaging protocols and link directly to a customer's device, unlike other proximity marketing tactics. The app is a must-have for your business.

Internet browsing

The practice of sending out information and advertisements to customers whenever they access the internet at your establishment is another typical example of proximity marketing. As demonstrated by major retailers, airlines, and coffee shop chains, customers can access this when they join your business's WiFi. Customers near your store can instead see website content updated in real-time through the location feature of mobile browsers.

4. BENEFITS OF LOCATION-BASED ADVERTISING



Highly Personalized

The idea behind location-based advertising is that it can be more tailored to the individual by targeting them when they are in specific locations. An improvement over generic ads is the incorporation of user-relevant language and graphics, which improve the link's performance. Customers are more likely to convert if you offer them bargains that are truly beneficial to them.

Minutely Targeted

People who despise irrelevant advertisements often use ad blockers. By narrowing its target audience to those within a specific radius, location-based advertising eliminates this issue. People are more likely to see content that is relevant to them when adverts are displayed

based on their location. This reduces the number of impressions that go unnoticed while maintaining a compelling message.

Greater Suitability

Small, medium, and large businesses alike can benefit from place-based promotion. It improves the efficacy of advertising by allowing businesses to zero in on specific local consumers. Products tailored to regional need increase the likelihood that interested parties will get in touch and have a good reaction.

Delivers Holistic Experience

Advertisements that are tailored to a user's geographic location are effective across a wide range of media. By consistently delivering the same pertinent content across all media, it facilitates a frictionless experience for prospects when utilized in conjunction with an omnichannel strategy. With this level of adaptability, the marketing can reach a wider audience while simultaneously improving the consumer experience.

COMPONENTS OF LOCATION BASED ADVERTISING

Location Data

Information protocols, global positioning systems (GPS), and wireless networks can all contribute to a person's location data, which is a digital log of their current whereabouts. While Wi-Fi and IP addresses might provide a ballpark figure for your location, GPS can be much more precise. Businesses can utilize this data to pinpoint the precise locations of their consumers and the establishments in close proximity to them.

Targeting Mechanism:

Beacon technology, geofencing, and geotargeting are some of the state-of-the-art approaches used by location-based advertising to truly interact with individuals. These methods make use of location data to tailor advertisements to users depending on their current and historical locations. Because of this, the communication is more effective, timely, and beneficial.

One method of reaching consumers is through geotargeting, which involves creating audiences based on certain locations or websites that they have previously shown interest in or visited. By enabling marketers to send ads based on customers' past actions and interests, this method makes ads more relevant and engaging.

Personalized Content

The ability to deliver context-aware messaging is the secret ingredient to location-based advertising's success. An instance of personalization could be receiving a discount at a coffee establishment simply for passing by. Looking at consumers' surroundings and recent actions allows advertisers to create good and relevant material for them. In addition to attracting more eyes, this boosts brand loyalty, which in turn raises the likelihood of a connection and a transaction.



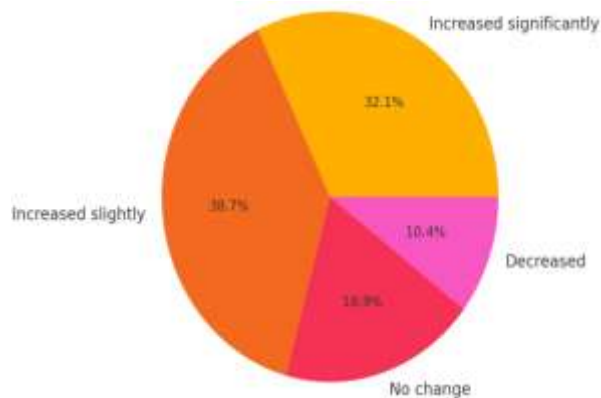
5. DATA ANALYSIS AND INTERPRETATION

Awareness of Proximity Marketing at CCD



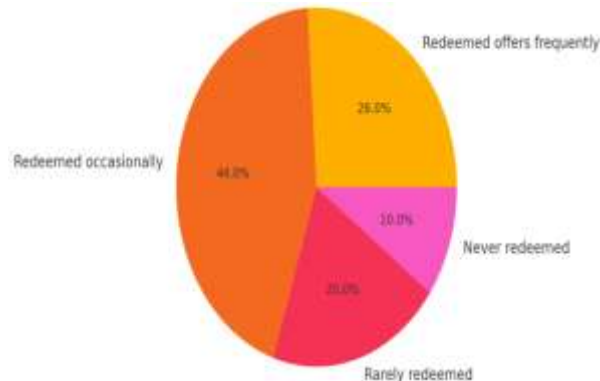
The majority of respondents (48%) had a decent grasp of CCD's proximity marketing, indicating a limited level of market penetration for the company, according to the report. A whopping 37% of users exhibit complete awareness, indicating that it's highly noticeable to frequent users. More outreach and education are needed because 15% of the population is still unaware.

Impact of Proximity Marketing on Visit Frequency



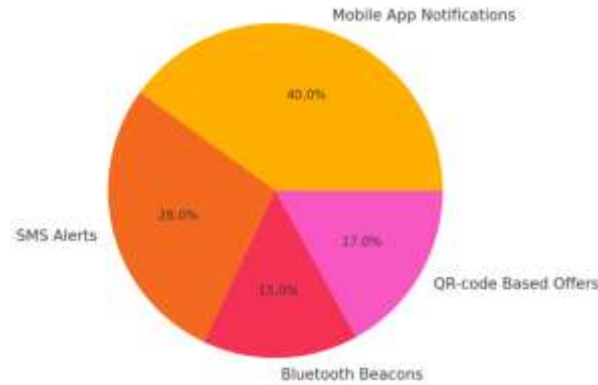
Numerous respondents expressed satisfaction with proximity marketing. When asked how often they visited, 41% said more often and 34% said even more often. It appears that CCD's location-specific marketing had a significant impact, since only 20% of respondents claimed no change had occurred. The fact that just 5% demonstrated a decline implies that the detrimental impact was minimal.

Customer Response to Location-Based Offers



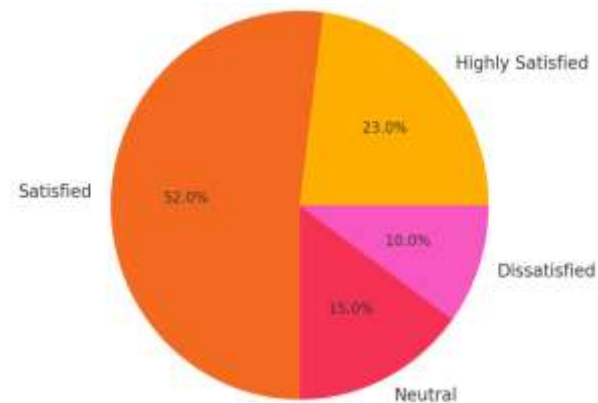
Incentives based on proximity were used by 44% of users in CCD's promotional activities, according to the report. The fact that a significant portion of offers are consistently accepted indicates a high level of engagement with a specific client segment. However, proximity marketing incentives may not have been as effective for all customers; 10% never utilized the promotions and 20% used them seldom.

Customer Preference for Proximity Marketing Channels



According to the survey, mobile app alerts are the most effective form of proximity marketing for CCD, as 40% of respondents support them. Text message notifications and QR code-based sales are acceptable to the majority of consumers (28%). Conversely, the low prevalence of Bluetooth beacons (15%) demonstrates that consumers are uninterested in beacon technology.

Satisfaction with CCD's Proximity-Based Ads



According to the data, CCD's neighborhood marketing is well-received by the majority of clients. Fifty-two percent of respondents were delighted, with 23 percent expressing extreme satisfaction. Still, 15% of the population does not have strong opinions either way. Customers seem to have few negative experiences with the marketing strategy, since only 10% are dissatisfied.

6. CONCLUSION

People and businesses can be connected through proximity marketing if it happens at the correct time and location. Geofencing, beacons, near field communication (NFC), and QR codes allow for the targeted delivery of relevant messages to nearby customers as opposed to generic adverts. Envision yourself entering a store and instantly securing a discount on the product of your choice. This demonstrates its ease of use. It personalizes the buying process



by delivering timely notifications and incentives. It's a platform that helps businesses understand their consumers' actions, purchases, engagement, and revenue. Retailers may improve their plans, strategies, and marketing campaigns by using these suggestions. When people trust a company with their personal information, they are more inclined to do business with them because they feel safer. Everything is improved and trust is built as a result of this. Finally, proximity marketing integrates data from computers with real-world actions. With its assistance, companies can establish solid alliances, which in turn attract more tourists and give the impression of a genuine and useful journey.

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