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Unleashing the Power of Geospatial Data for Retailers

F&B | CONSUMER PACKAGED GOODS | FASHION | PHARMA | RETAIL BANKING AND MORE.

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Introduction

In retail and FMCG (fast-moving consumer goods) sectors, businesses must stay on top of changing consumer preferences, behavior, and demands to adequately meet them and maintain a competitive advantage.

Raw location data and POI data are instrumental in offering actionable insights that empower companies to make well-informed decisions and optimize their operations. Geospatial data provides granular insights into consumer behavior, market trends, and the competitive landscape, which can be used to make informed decisions about store locations, site selection, marketing strategies, and supply chain management. Location data helps retailers identify patterns in foot traffic, in-store movement, and customer preferences, allowing them to refine store layouts, enhance customer experiences, and ultimately drive sales.

This eBook will discuss how raw location and POI data can help retailers make more strategic, data-driven decisions. We will present use cases that demonstrate how incorporating location data into their business intelligence models can help retailers unlock valuable insights that lead to more efficient and profitable operations and set them up for long-term success in an increasingly competitive industry.

What's Inside

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Location data use cases for retailers

Customer segmentation and behavior based audiences

By analyzing location data, retailers can identify and categorize their customers based on factors such as demographics, purchasing habits, and location preferences. This information enables businesses to create tailored marketing strategies and campaigns that resonate with specific customer segments, driving higher conversion rates. Location data analysis can also help retailers uncover trends in customer behavior, such as shopping preferences, peak shopping hours, and visit frequency. This valuable information can be used to optimize store operations, staffing, and inventory management, ensuring efficient resource allocation.

Furthermore, location data can be harnessed to recognize and anticipate seasonal fluctuations in consumer demand. Retailers can use these insights to adjust inventory levels, design marketing campaigns, and promotions, capitalizing on increased demand during peak seasons. Additionally, location data can provide insights into how customers interact with stores, including dwell time, in-store movement patterns, and preferred departments. By understanding these patterns, businesses can optimize store layouts and product placement, and improve buyer experience.

Case Study

One of our customers, a leading winter apparel company performed location data analysis for ski tourists that visited the mountains of Aspen, Colorado. By geofencing and studying foot traffic at each ski slope the company was able to study the origin of tourists and their dwell time in the region. The company built audience profiles based on the location based insights to execute targeted marketing campaigns. They also used the analysis to determine performance at competitor outlets in the region which provided actionable insights for their own retail store expansion.

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Footfall patterns and visitation analyses

Location data analysis can offer granular insights into various aspects of footfall and visitation. This information can be used to determine optimal store locations, identify high-traffic areas, analyze competitor locations, and understand in-store movement patterns.

Using footfall and visitation data, retailers can determine the ideal locations for their stores, considering population density, customer demographics, and proximity to competitors. By choosing suitable locations, retailers can maximize foot traffic, increase brand visibility, and improve sales performance. By studying the same data for competing outlets, businesses can identify potential opportunities for expansion or differentiation and even poach buyers from their competitors.

Location data can also provide granular insights into how customers move through a store, helping retailers identify bottlenecks, optimize product placement, and create a more efficient shopping experience. By analyzing in-store movement patterns, retailers can also identify areas where customers tend to linger, providing opportunities for targeted promotions or displays. Dwell time analyses can further provide insights into the amount of time customers spend in a store or specific area allowing retailers to create targeted marketing strategies that encourage increased dwell time and sales.

Utilizing mobile location data our partners IotaQ, conduct market research, and location-based competitor analyses.

Recently, IotaQ used Quadrant's mobile location data to analyze foot traffic for two popular fast-food chains in Charlotte, NC, USA. This dashboard, offers valuable insights that can inform key decisions for improved performance.

VIEW DASHBOARD

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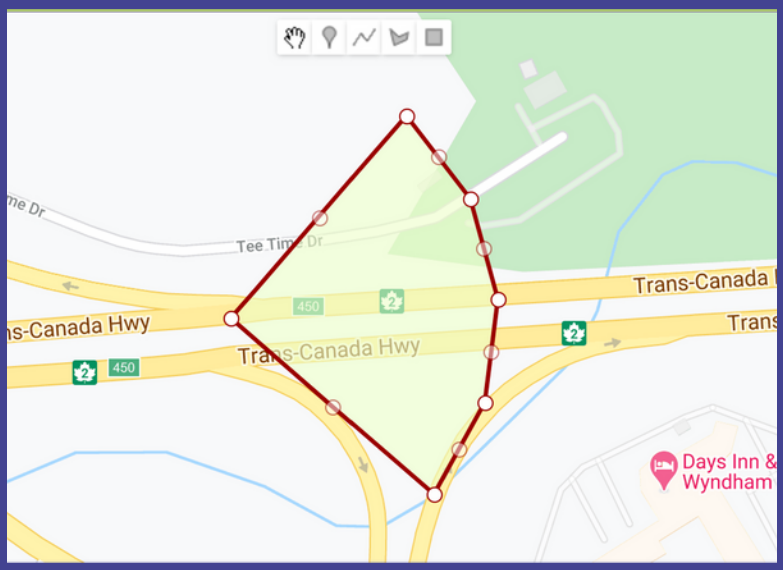
Location-based Advertising and Marketing

Since location data can precisely segment target audiences based on geographic location, proximity to stores, and shopping preferences, supermarkets, pharmacies, restaurants etc., can create highly targeted marketing campaigns that yield high engagement and conversion rates.

Retail marketers can build geofencing campaigns that trigger promotions and offers to potential customers based on their proximity to a store, driving foot traffic and increasing the likelihood of in-store visits. They can even create advertising campaigns that highlight the retailer's unique selling points or offers to attract a competitor's customers.

Location data has also proven highly beneficial in out-of-home (OOH) ad campaigns that are hard to measure as opposed to online ad campaigns. By analyzing foot traffic patterns and high-traffic areas, retailers can strategically place billboards, digital displays, and transit ads where their target audience is most likely to see them. This maximizes visibility and increases the effectiveness of campaigns. Not just that, retailers can correspond ad views with in-store visits to accurately measure the influence and ROI of an ad campaign as well. By focusing their advertising budget on high-performing assets, retailers can optimize their ad spend and maximize their return on investment.



Applied Post, a consumer analytics company, utilized location data to evaluate the effectiveness of an F&B retailer's OOH advertisements. By geofencing billboards they built view cones to measure exposure and correlated this data with foot traffic at retail locations. By doing so they could calculate store visits and influenced by the ads, allowing for precise assessment of the OOH campaign's ROI.

GET FULL CASE STUDY

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Supply-chain optimization

Location and POI data can play a crucial role in helping retailers optimize their supply chain operations, streamline their distribution networks, improve transportation efficiency, and enhance inventory management. Retailers can use location data to analyze their existing distribution networks, identify inefficiencies, and optimize the flow of goods from suppliers to stores. By understanding the geographical distribution of stores, warehouses, and suppliers, retailers can make strategic decisions about consolidating or expanding their distribution networks. For example, considering the proximity to stores, supplier locations, transportation infrastructure, and regional demand can allow retailers to pinpoint locations that minimize transit times, reduce transportation costs, and ensure the timely stock delivery. By understanding regional demand patterns, customer preferences, and store performance, retailers can allocate inventory more effectively, ensuring that products are promptly available when needed.

Ecommerce logistics and operations

The rapid expansion of online retail can be attributed to the convenience provided by technology-driven shopping experiences. Customers across various sectors, including fast-moving consumer goods (FMCG), groceries, fashion, and home improvement, increasingly prefer digital platforms over physical stores. Brands that offer competitive pricing, enticing deals, quick delivery, efficient services, and seamless returns are more likely to attract customers.

To excel in the fiercely competitive online retail market, businesses must focus on optimizing delivery operations and consistently delivering excellent customer experiences. Precise point-of-interest (POI) data is crucial for retailers, FMCG, and e-commerce businesses to develop cost-effective logistics and delivery systems. Location data can be used to streamline transportation routes between warehouses, distribution centers, and stores, as well as enhance last-mile delivery operations by identifying the most effective routes and delivery methods to reach customers. This approach minimizes travel time and fuel consumption, ultimately reducing transportation costs and improving delivery times.

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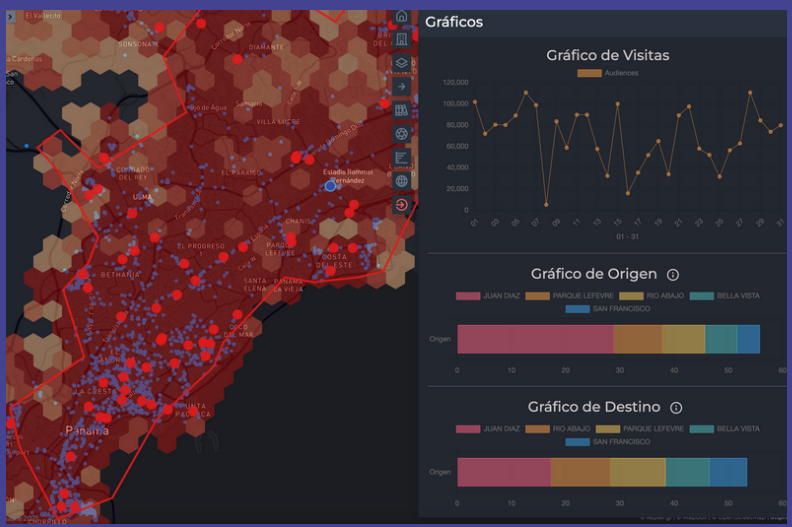
Location data for actionable business intelligence

Location-based business intelligence (BI) enables retailers to gain valuable insights into customer behaviour, preferences, and market trends. By integrating location data with other types of data, such as demographic, purchase, social media, weather, and economic information retailers can get a comprehensive overview of their operations and identify areas of improvement.

Furthermore, location-based BI helps retailers identify and capitalize on emerging market opportunities, anticipate potential challenges and plan ahead to mitigate them. By harnessing the power of location-based analytics, retailers can make data-driven decisions that drive growth, efficiency, and success in an increasingly competitive market landscape.

For example: by combining location data with demographic information, retailers can identify target markets and understand customer preferences, enabling them to create tailored marketing campaigns and select ideal store locations. Purchase data can reveal regional shopping trends, empowering retailers to optimize inventory management and meet local demand. Social media data, when geographically analyzed, can uncover regional brand sentiments and preferences, allowing for targeted promotions and improved customer engagement.



Mapoteca creates data infrastructures, algorithms, and APIs to provide actionable insights for retailers in Latin America. Using their advanced data visualization platform, powered by Quadrant's data, Mexico's supermarket giant Grupo Rey conducts origin-destination analyses for its shoppers to expand its presence and invest in high-interest areas.

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Why Quadrant is the Ideal Location Data Partner for Retailers

As a retailer in today's highly competitive market, having access to accurate and comprehensive location data is critical for driving growth, optimizing operations, and staying ahead of the competition. Quadrant is the ideal location data partner for retailers seeking to leverage location-based insights to drive growth, optimize operations, and stay ahead in a competitive market. With our commitment to quality, customization, and compliance, we provide the tools and support needed for retailers to thrive in today's data-driven business landscape.

High-Quality Raw Location Data

Quadrant provides retailers with High-quality mobile location data from 650+ million devices across 219 countries with 15+ billion mobile data events per day. Retail, FMCG, and market intelligence companies choose Quadrant's foot traffic data to understand how consumers move in the real world. The resulting insights allow them to understand the relationships between various Points-of-Interest (POI), strategize and execute effective marketing campaigns, boost revenue, map and measure competitor performance, and decrease operational and supply chain costs.

Groundtruth POI Data

Our verified, up-to-date, and accurate POI data and contextual attributes are essential to power online retail and last mile delivery applications. Retailers leverage our manually verified POI data to develop a dependable and financially smart delivery system. Our custom attributes allow businesses to power their delivery applications with accurate underlying maps to enable efficient route-planning, fleet-management, assignment and delivery.

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Custom real-world data

Quadrant recognizes that each different retail segments have unique needs and requirements. As a result, we offer customized real-world data collection tailored to the specific goals and objectives of each client, ensuring that the provided data is relevant and actionable. Custom data collection refers to any attribute that is relevant to retail operations that can be collected from the physical world. We can deploy custom projects within our proprietary data collection app Geolancer based on any client brief.

About Geolancer

Geolancer is a proprietary mobile app where freelancers (Geolancers) across the globe record these changes in the physical world and collect relevant data in exchange for crypto rewards. The Geolancer app is designed to make data collection, easy, efficient, and as detailed as possible.

For example, Geolancers have been collecting POI data manually, on the ground, while walking around in their neighbourhood. Properties they record include latitude, longitude, address, category, and opening hours, and any type of on-demand custom metadata attributes most off-the-shelf databases can't collect.

Geolancers are rewarded in EQUAD, a cryptocurrency issued by Quadrant's blockchain arm, Quadrant Protocol. Cryptocurrency payment makes it possible for us to build a truly global army of Geolancers without worrying about the overhead associated with micropayments and international remittance.

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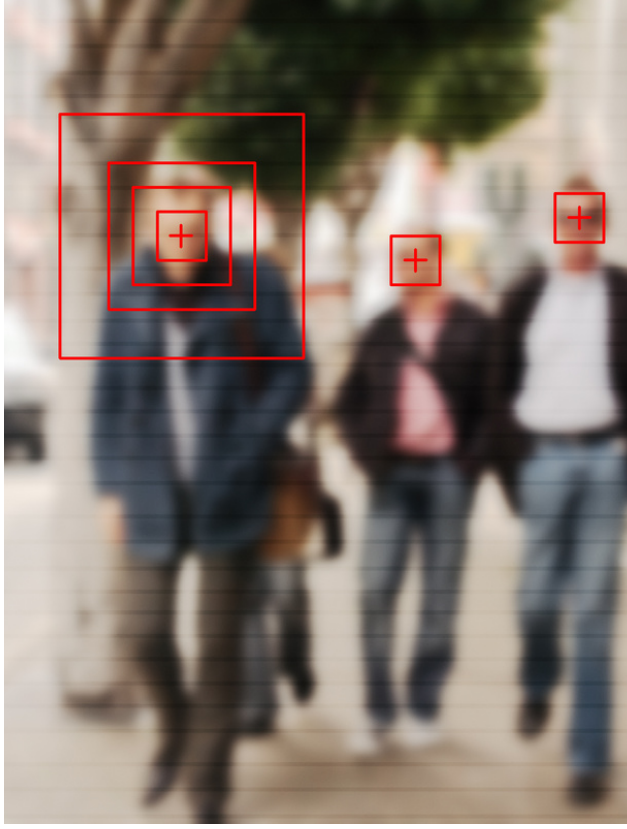

Quality Control and AI-Based Processing

Quadrant employs advanced quality control measures and AI-based processing techniques to ensure the integrity and accuracy of the data provided. This approach guarantees that retailers receive dependable insights for making critical business decisions.

Preparing and cleansing location data for consumption can be resource-intensive and time-consuming. Our in-house data engineering and data science teams streamline the process by handling the data preparation before it reaches your servers. We eliminate duplicates, remove overlaps, discard incomplete records, and minimize latency to optimize the value of the data you receive. Our data science team has developed essential algorithms and queries for location-based analyses, which, along with additional data science support, are available upon request.

We also use advanced AI models to improve data quality for our POI datasets. We have developed AI models to identify anomalies, for example, when consecutive geo-coordinates are mapped in timeframes that are not humanly possible. When it comes to POI data, photos are the ultimate arbiter of truth, and all POIs mapped through Geolancer must include at least one photo. We leverage these images to combat other forms of 'user ingenuity'. Photos must be taken in front of a POI; hence, users cannot add or verify a location unless present at the exact coordinates. Using text-recognition we can validate if location names, categories, opening hours, and other attributes are accurate.

Our preventative algorithms allow us to immediately identify suspicious behavior so that poor-quality data never makes it into our clients' data feeds. As a result of our due diligence, **we have been able to deliver POI datasets for companies like Gojek with an exceptional 97% accuracy!**

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Partnerships with leading market research and consulting firms

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Flexible pricing

Quadrant understands the diverse needs and budgets of retailers and offers flexible pricing options to accommodate various requirements. This flexibility ensures that retailers can access the location data they need without breaking the bank. Our POI data offering can be tailored by region, standard or custom attributes and more factors so you only pay for what you need. Our location data offering is versatile and tailored to a customer's needs. Large companies that require huge datasets and wish to conduct all data analysis in-house can subscribe to our entire data feed, whereas small businesses can leverage our data for a smaller region or period for one-off projects. Our adaptability to fit the client brief is unmatchable. Most of our customers choose us over competitors for flexibility alone.

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Privacy and Compliance

Quadrant places a high priority on privacy and compliance, ensuring that all data is collected and processed in accordance with the latest industry standards and regulations. This commitment guarantees that retailers can trust the data they receive and use it responsibly.

Unlike data that is collected on websites and social media, location data sourced from mobile devices is free of context, i.e., it doesn't record a person's identity, demographics, or any other form of PII. Most retailers use aggregated, historical data over months or even years to understand large-scale movement patterns. Moreover, we only collect data from users who opt-in and give explicit consent for sharing their location. We also document all data transactions between buyers, providers, and suppliers through Data Smart Contracts and leverage a mechanism called 'Data Stamping' to attach a unique identifier to each transaction on the Quadrant Chain. By doing this, we allow our customers to see exactly where their data is coming from and when they started receiving it.

We have also developed proprietary algorithms to scan data and images collected via Geolancer for personally identifiable information (PII), concealing sensitive data before passing it on to customers. **The data is processed through an AI model that blurs sensitive information like faces and license plates.**

About Quadrant

Businesses rely on geospatial information to make sense of their surroundings. When observed over a period of time, movement patterns provide valuable insights that can be leveraged by businesses or governments to propagate the consumption of their services, expand availability, boost ROI, improve customer experience, and gain competitive advantage. Our customers trust us for the consistency, quality, and coverage of our location data. Combined with our manually collected and verified, on-demand POI data, we have the unique capability to be a holistic, one-stop-shop data partner for you.

Quadrant (An Appen Company) is a global leader in mobile location data, POI data, and corresponding compliance services. We provide anonymized location data and location-based business solutions that are fit for purpose, authentic, easy to use, and simple to organize. We offer data for almost all countries in the world, with hundreds of millions of unique devices and tens of billions of events per month, allowing our clients to perform location analyses, derive location-based intelligence, and make well-informed business decisions. With our POI Data-as-a-Service, our customers can apply analytical models against large, accurate POI datasets, deriving meaningful and actionable insights. With the increasing digital transformation of businesses, there is an enormous market need for quality POI data. Learn how you can leverage Quadrant's location data to make better business decisions and improve the foundation of geospatial applications. **Talk to a data consultant today!**

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