Consumer Packaged Goods

Location Intelligence: Analytical use cases for sales organization

fractal

COVID-19 has triggered enormous shifts in how Consumer Packaged Goods (CPG) firms market and distribute their products. Despite the rise in online purchases during the pandemic, 90% of the worldwide purchases are still predicted to occur in-store vs. online in 20251 . Analytics professionals in CPG firms use Location Intelligence to help the sales organization find and prioritize the right in-store assortment opportunities and analyze shopper behavior.

Location Intelligence is the collection and analysis of many geospatial data sources that are transformed into tactical, action-oriented insights to solve a variety of business problems. Sales professionals in the CPG industry turn to Geospatial data and analytics to find new leads, improve on-field conversions, analyze shopper behavior, and optimize their routes to reach those opportunities.

In this whitepaper, we will be doing a deep dive into some of the relevant analytical use cases: -

1. Geospatial Mapping (Answers 'Where to sell' and 'What to cover'?)

It helps to cover all possible POPs (Point of Purchases), that is defined as any location that has the potential for a shopper to buy a CPG branded product and helps understand 'where the shoppers are' and 'where is the demand'.' It is usually the initial step in the digital RTM (Route to Market) strategy of any CPG firm. Analytics teams can build this solution to help the sales representatives in:

- Closing coverage gaps by covering more and better stores in the given geography;
- Identifying & prioritizing top opportunities areas on a map to improve current coverage
- Generating new qualified leads and leverage untapped opportunities
- Prioritizing opportunities for increasing stock-weights, infra-placement, merchandising, and product mix basis POP characteristics, potential, performance, geographical features, etc. for better on-field conversions

One of the top challenges the on-field sales team faces is the tedious and time-consuming process of lead identification and conversion. Most traditional methods either use informal feedback from field force or use manual excel-based approach and/or reporting using census data or 3rd party agencies inputs. These traditional methods are usually based on-premises technology and lack the holistic market perspective and analytics to define an effective market strategy.

AIML and XR based methods leverage ,new sources of data for insights, and the front-end geographical tool aids in visualization and faster decision making. Diverse external data sources, including PoI (Point of Interest) and Market Universe (POP) data, along with internal store data, provides a holistic 360 market view. Cloud-based user interface bridges the gap between data and insights. Such methods are also transformative vs. the operational and tactical nature of the traditional methods.

MAPS (Mapping & Prioritizing Stores)

Fractal's MAPS solution and front-end geographical tool have the following components:

- **Sourcing:** As per the geographical region, data sources can range from manual census data from local data providers and API data from vendors such as Google (Google Places for fetching POI and POP data), total traffic by day part/ weekday/ weekend per square mile radius, Amazon Location services, etc.
- **Mapping:** After sourcing, universe data, internal (existing) stores are mapped to the universe through Name and Distance based matching techniques for mapping.

- **Rendering:** After cleaning and data transformational techniques, insights are rendered on the map integrated with the front-end tool through APIs such as Google MAPS JavaScript.
- **Analytical Insights:** The front-end application enables decision making through insights derived from AI/ML-based algorithms for arriving at sales estimation for coverage gaps, new leads, an opportunity for new transaction points, infra placement in key locations, clustering/profiling, benchmarking of existing stores, sales value trends, recommended category, near-by POIs etc.

2. Neighborhood Analytics (Answers 'What to sell' and 'Whom to sell?)

CPG companies are moving towards a more consumer-centric business model that uses location data to understand the local environment around the POP- shopper demographics, socio-economic, income profiles, proximity to POIs or other competing POPs, etc. Understanding the properties of the shoppers and neighborhood is important to understand the surrounding factors that affect the POP potential. Analytics teams can use neighborhood analytics to help the sales representatives in:

- Ensuring the shoppers have access to the right products at the right time and right location
- Understanding demand hotspots for different categories and factors driving the POP value
- Understanding what display and promotion tactics to run by analyzing shopper behavior

Traditionally, it has been done using the market understanding of the on-field sales teams and can thus make it harder for the CPG firms to make decisions and invest at the right time, in the right amount, and on the right resources increasing the sales of the product categories.

COVID-19 has brought a shift in the way how CPG firms are looking at the market now. There is a strong need to understand how the shoppers' real-world behavior fluctuates with social distancing measures, lockdown restrictions, curfews, commuting changes, workplace shifts, etc. The geographical visualization through location intelligence provides relevant insights by overlaying different data sources at a single click for the sales team. Connect with us today.

Fractal's analytical solution consists of identifying the right data sources and bringing them to a commonplace such as a data warehouse or a Store 360. Feature extraction and modeling then help in bringing out the relevant insights to the sales team. Examples of data types could include: Human mobility to understand how much traffic is flowing through a square mile radius through the day or time the shoppers are spending at which location, using computer vision on storefront images to quantify the merchandising impact on sales, overlaying household income profiles and consumption pattern, population density, POI density and distance to places of high traffic such as hospitals, restaurants, etc. from relevant data sources such as Google Places, Nielsen, Kantar, Gfk etc.

3. Territory Planning and Route Optimization (Answers 'When' and 'How to sell'?)

On-field sales pose a range of real-time challenges and constraints such as traffic, weather, mode of transport, location, coverage difficulty, customer/retailer availability, type of visit etc., that may affect sales team productivity and route plan. With increasing scale, the ability to manage territories and quickly & efficiently realign them is becoming an important part of the Digital RTM strategy.

For the effective territory and route planning and to minimize the chance for the sales representatives to miss an opportunity, location intelligence has become a go-to tool. Additionally, for the last mile delivery companies (e.g.: Delhivery, Onfleet), it becomes even more important as this is directly linked to the customer satisfaction of getting the deliveries on time.

Territory Planning and Route Optimization solution help the sales team in the following:

- Reviewing sales representative's territorial boundaries and effectively design, adjust, and balance them,
- Planning resources across different needs and nature of territories,
- Creating visibility of important KPI's to the sales representative basis on territory assigned,
- Maximizing selling time of sales rep through efficient route planning & dynamic scheduling,
- Creating recommended weekly visit plan, priority list, recommended visit time range, and day-wise optimized route plan for visits.

Traditionally, sales managers spend a lot of time balancing their territories through manual exercise with limited constraints and plan their daily route for store visits basis their geographical understanding of the region, without analytically assessing how to best optimize these visits and increase throughput. This may also lead to inefficiencies, uneven distribution of opportunities, unserved opportunities, and increased cost to serve.

Sales leaders must embrace new analytical ways of working, and with increasing awareness of AI and Machine Learning, the underlined use case is becoming a necessary addition to the RTM strategy for CPG firms. Additionally, the disruption caused due to the pandemic is leading many firms to set-up B2B portals so that mom and pop customers and retailers can place orders online; thereby, saving selling time and delivering efficiently.

Solution Components: Fractal's solution and front-end geographical tool provide the following:

- **Sourcing**: Connection with CRM tools such as Salesforce, Microsoft Dynamics 365, SugarCRM etc. to extract the sales data, geography, customer data, new leads data, etc.
- **Balancing**: Visualize the data on the map and see real-time changes in the KPIs such as customers covered, total potential, total sales, etc. and balance based on opportunity size, potential, performance, salesperson characteristics, coverage difficulty, etc.
- **Prioritizing and Scheduling:** Prioritize store visits basis the potential and proximity within a territory and the time spent on each store basis, the type of activity (order taking, promotion, etc.), type of visit (short vs. long) to create a daily visit plan incorporating constraints such as total distance traveled, working hours, capacity constraints, availability, leave plan, etc.
- **Optimizing**: Use real-time traffic APIs such as Google Directions to optimize the route for visiting the stores and dynamically updating them.
- **Rendering**: Render the route on the map for the sales representative, last-mile delivery companies can also send the routes to their drivers on SMS at the start of the day.
- **Tracking**: Track the route of the sales representative taken for each day to feed into the system again, capture feedback, and improve the accuracy.

References

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The Definitive Guide to Sales Territory Management (mapmycustomers.me)

Using Location Data in CPG Shopper Insights Guide | CARTO

New release: Territory optimization just got smarter - eSpatial

Territory Management | Sales Territory Mapping Software | Dynamics 365 & Power BI (easyterritory.com)

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About Fractal

Fractal is one of the most prominent players in the Artificial Intelligence space. Fractal's mission is to power every human decision in the enterprise and uses the power of AI to help the world's most admired Fortune 100 companies.

Fractal's products include Qure.ai to assist radiologists make better diagnostic decisions, Cuddle.ai to assists CEOs and senior executives make better tactical and strategic decisions, Theremin.ai improve investment decisions and Eugenie.ai to find anomalies in high velocity data.

Fractal has consistently been rated as India's best companies to work for, by The Great Place to Work® Institute. Fractal has been featured as a leader in the Customer Analytics Service Providers Wave™ 2019 by Forrester Research, and recognized as an "Honorable Vendor" in 2020 magic quadrant for data & analytics by Gartner.

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