# Data Analytics Case Study of

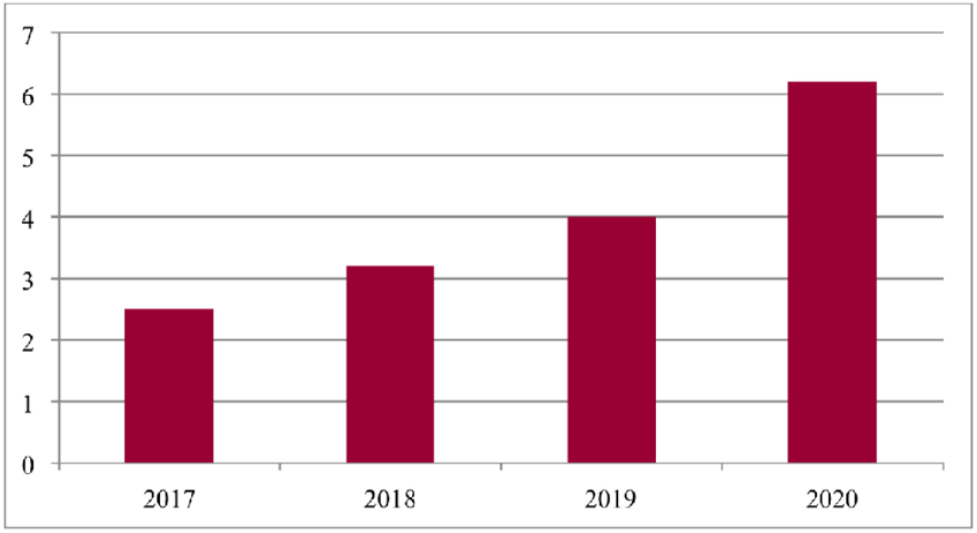





AI GEN ›

# How ZARA Built a $13 Billion Empire Without Traditional Advertising

Discover how ZARA, a fast fashion giant, has transformed the industry by prioritizing customer preferences, speed, and efficiency, all without spending on traditional advertising.



# THE SECRET OF ZARA'S SUCCESS: DATA-DRIVEN DECISIONS

## AI can improve customer-centric strategies to help boost e-commerce and be more sustainable

If Zara has succeeded in mastering its physical fast-fashion production chain, it is running late on digital. AI-powered trend forecasting is the way forward.

Zara has already multiplied technology-powered initiatives. In 2018, the fast fashion powerhouse teamed up with Jetlore, an AI-powered consumer behavior prediction platform, and Spanish big data company, El Arte de Medirn. Furthermore, it partnered with Intel and Fetch Robotics to measure clothing volume in boxes and improve stock inventory. Finally, to secure its product inventory and improve its traceability all along the supply chain, Zara implemented micro-chips from Tyco.

Since then, the brand continues to use these features in 2020. Earlier this year, they even added AI-powered robotics to automate order pick-up and reduce customer wait times.

Zara's story shows how a data-driven approach and speed-to-market can disrupt an industry. For any business, the lessons are clear: know your customers intimately, give them what they want as fast as possible, and success will follow.

The secret behind Zara's success lies in its data-driven model of fast fashion.Zara is known for rapidly translating runway trends into affordable clothing. It has a quick turnaround time from design to store shelves, often taking as little as two weeks.Zara relies heavily on customer data and market research to determine trends and tailor its collections.

With around 6,500 stores spanning across 88 countries, Zara


iSCALE

Amancio Ortega is the founder of Zara and one of the wealthiest individuals in the world.

Born in 1936 in Busdongo de Arbás, Spain, Ortega came from a humble background. His father worked as a railway worker, and the family faced financial struggles.

He dropped out of school at 14 to support his family. He started working as a delivery boy for a local shirtmaker and soon learned about fabrics, garments, and the intricacies of the clothing industry.In 1975, Ortega, along with his then-wife Rosalia Mera, opened the first Zara store in La Coruña, Spain.

Zara's story began in 1975 in La Coruña, Spain, when Amancio Ortega opened a small store named "Zorba." However, due to a local bar with the same name, Ortega changed it to "Zara." Initially, it offered affordable lookalikes of high-end fashion. Zara's unique selling point was its ability to replicate fashion trends and quickly bring them to the masses at an affordable price.

## Expansion in Spain (1980s)

By the early 1980s, Zara had expanded across Spain. Ortega's vision of vertical integration – where the company controls most of its supply chain – allowed Zara to react quickly to fashion trends, producing and distributing new designs within a matter of weeks, unlike the typical months-long process of traditional fashion brands.

International Growth (Late 1980s–1990s)

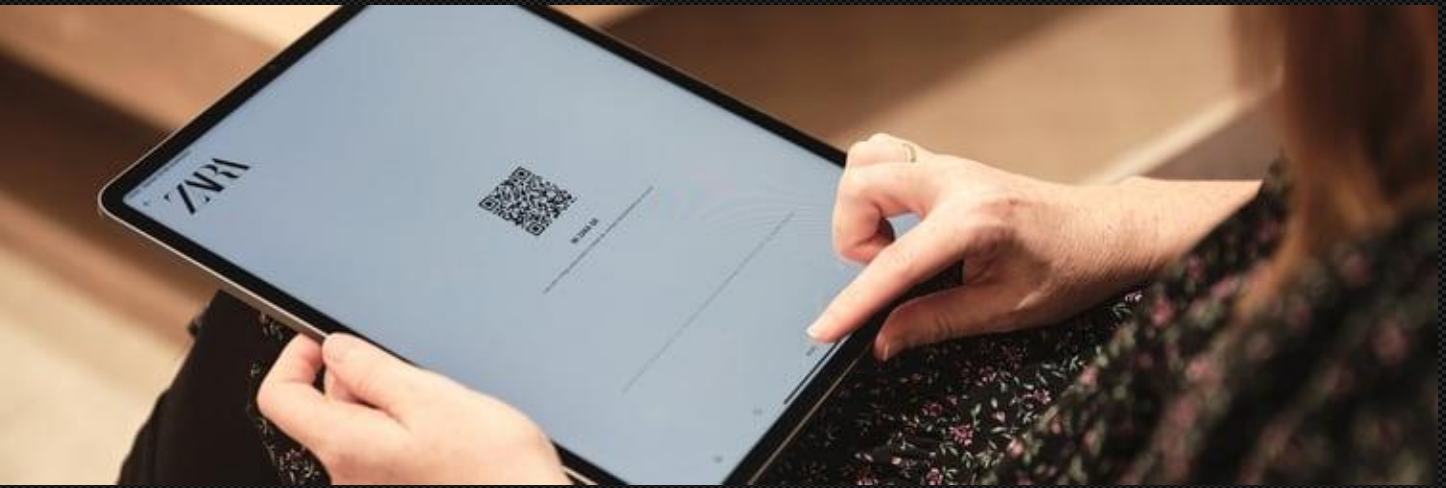
In 1988, Zara began its international expansion by opening its first store in Porto, Portugal. This was quickly followed by openings in New York (1989), Paris (1990), and other global cities. By the mid-1990s, Zara was well on its way to becoming a recognized name in fashion worldwide.

Innovative Business Model (1990s)

Zara introduced its "fast fashion" model, where designs move quickly from runway to retail, offering up to 20,000 new items annually. The brand's approach to just-in-time manufacturing meant it could stock stores with new items twice a week. This sped-up production cycle disrupted the traditional fashion calendar, and Zara became a pioneer in the industry.

In May 2010, fashion giant Zara launched its first Indian store at the Select City Walk mall in New Delhi.

In September 2010, Zara launched its online boutique. The website began in Jordan.In November of the same year, Zara Online extended its service to five more countries: Austria, Ireland, the Netherlands, Belgium and Luxembourg.Online stores began operating in the United States in 2011, Russia and Canada in 2013, Mexico in 2014,South Korea in 2014, Romania in 2016, India in 2017, Israel and Brazil in 2019,and Peru in 2020.



Did you know that Zara changes its clothing lineup every week? Or that the same garments aren’t found in every corner of a city? What about Zara’s ability to predict weather patterns to tailor its offerings to your future needs? Zara even considers the average weight of locals to ensure the right sizes are in stock, ¿how they do all of this through data?


PROXIMITY
A fashion close to the customer with updated cordination proposals
LOCATION
Mapping of garments in-store from customer mobile app complemented by targeted fashion trend info
SPEED
Ability to book fitting rooms from mobile app ahead of time.
CONVENIENCE
Systems designed to reduce till queues / Self-checkout / Automated in-store pick-up points for online orders

## How Zara Gathers Customer Data Through Market Research?

To gain valuable insights into customer needs and shopping behaviors, Zara conducts ongoing market research. By gathering data from multiple sources, Zara can make data-driven decisions to improve the customer experience.

### 1- Online Customer Surveys :

Zara frequently surveys customers on their website and mobile app. Questions cover product interests, shopping preferences, and brand satisfaction. The data helps determine what products to develop and how to enhance the online experience.

### 2- In-Store Interactions :

Zara store associates regularly engage with customers to learn their perspectives on current fashion trends, brand perception, and potential improvements. Associates document these conversations and forward key findings to the market research team.

### 3- Social Media Monitoring :

Zara closely monitors various social media platforms to see what customers are saying about the brand and their products. Mentions of Zara on social media provide a glimpse into customer sentiments that can influence strategic decisions.

### 4- Competitor Research :

Zara analyzes how competitors operate to determine best practices and potential advantages. Comparing competitors' pricing, products, marketing, and customer service helps Zara make better choices for their target customers.

## How Does ZARA Utilize the Data?

## 1. Demand Forecasting and Inventory Management

**Real-time Data Collection**: Zara collects real-time sales data from stores and online platforms to understand customer preferences and buying patterns. This helps them make quick decisions on which products to produce or restock.

**Predicting Trends**: By analyzing historical data and current sales trends, Zara can forecast which designs, colors, and sizes will be popular. This allows them to produce just the right amount, reducing overstock and waste.

## 2. Customer Behavior Analysis

**Personalized Shopping Experience**: Through its online store and mobile app, Zara gathers data on customer preferences, browsing history, and purchase behavior. This data helps them offer personalized product recommendations and targeted marketing campaigns.

**In-store Analytics**: Zara monitors customer footfall, product interactions, and purchasing patterns in physical stores, enabling them to refine store layouts and merchandising strategies.

## 3. Optimizing Supply Chain and Logistics

**Efficient Stock Replenishment**: Zara's use of data analytics helps keep track of stock levels across stores globally. When an item is selling well in one location but not in another, Zara uses this data to shift inventory between stores rather than producing new stock.

**Faster Decision-making**: With centralized data from stores, warehouses, and online platforms, Zara's supply chain team can make faster decisions about restocking, new production, and distribution routes, reducing the lead time from design to store.

## Designing Collections Based on Customer Feedback

**Customer Feedback and Social Media Analytics**: Zara analyzes feedback from customers, including social media mentions and reviews, to identify what people like and dislike about their products. This allows Zara's design team to adjust future collections in response to customer preferences.

**Test and Learn Approach**: Zara often releases small batches of products to test customer reactions. Based on real-time sales data, they decide whether to produce more or discontinue the line, ensuring they meet customer demand effectively.

## Price Optimization

**Dynamic Pricing Models**: Data analytics enables Zara to monitor demand elasticity and set prices that maximize revenue. For example, when certain products are in high demand, Zara may reduce discounts or increase prices, ensuring they make the most out of sales opportunities.

## Omnichannel Integration

**Seamless Online and Offline Experience**: Zara uses data analytics to integrate its online and physical store experiences. Customers can check inventory online, reserve products, or choose to pick up purchases from a physical store. Data analytics helps track these interactions and optimize inventory accordingly.

## Store Performance Analytics

Zara uses data to analyze the performance of its stores in different regions. This includes metrics like sales per square foot, customer foot traffic, and conversion rates, helping them identify which stores need more inventory, staff, or layout adjustments.

# Interview Practice - Assignment

You are a **Data Analyst at Zara**, tasked with improving the company's supply chain efficiency. Recently, you've noticed frequent stockouts of certain popular items, while other products are overstocked, leading to wasted resources and markdowns. To address this issue, your manager has asked you to enhance the **demand forecasting model**.

**Question:**

Given your role, **what types of data would you recommend collecting and analyzing to create a more accurate demand forecasting model for Zara**?

# Question 2

What types of customer behavior data (e.g., online browsing patterns, purchase frequency, social media activity) should Zara collect to build more accurate customer segments?

## Question 3

What data should Zara analyze to determine the optimal location for new store openings (e.g., foot traffic, local demographics, competitor presence)?

# Connect with Us

Instagram Handle

**theiscale**

The iScale Organization Handle

**theiscale.founders**

Siblings - Nishant Dhote & Swati Dhote

**Website –** www.theiscale.com **Contact : 7880-113-112** **theiscale** **theiscale.founders**

# ZARA – Data Analytics Assignment

You are a **Data Analyst at Zara**, tasked with improving the company's supply chain efficiency. Recently, you've noticed frequent stockouts of certain popular items, while other products are overstocked, leading to wasted resources and markdowns. To address this issue, your manager has asked you to enhance the **demand forecasting model**.

## Question 1:

Given your role, **what types of data would you recommend collecting and analyzing to create a more accurate demand forecasting model for Zara**?

## Answer 1

To improve its demand forecasting model, Zara should collect various types of data that provide a comprehensive view of customer preferences, market trends, and operational efficiency. Here are the key data types Zara should focus on:

### 1. Historical Sales Data

- **Why Important**: Historical sales data provides insight into which products performed well, the seasonality of demand, and trends over time.
- **What to Collect**: Sales volumes, product categories, sizes, colors, and returns for each product.

### 2. Customer Data

- **Why Important**: Customer demographics and purchasing behavior can help identify patterns and preferences.
- **What to Collect**: Age, gender, location, purchase history, average basket size, and customer feedback.

### 3. Store and Regional Data

- **Why Important**: Demand can vary across regions and store types (urban vs. rural, flagship vs. smaller stores).
- **What to Collect**: Sales by store, regional trends, local events, store traffic data, and inventory levels per location.

### 4. Market Trends and Social Media Data

- **Why Important**: Fashion trends evolve quickly, and social media platforms often influence purchasing behavior.
- **What to Collect**: Trends from fashion magazines, influencers, social media platforms (Instagram, Pinterest), and fashion-related hashtags.

### 5. Weather Data

- **Why Important**: Weather conditions can significantly affect clothing choices and buying decisions.
- **What to Collect**: Weather forecasts and historical weather patterns in regions where Zara operates.

**6. Promotional and Marketing Data**

- **Why Important**: Marketing campaigns, discounts, and promotions can impact demand.
- **What to Collect**: Data on promotions, ad campaigns, discount periods, and customer engagement during sales.

**7. Competitor Data**

- **Why Important**: Understanding competitors' offerings and performance can help Zara position its products more effectively.
- **What to Collect**: Competitor pricing, product launches, sales, and promotional activities.

**8. Inventory Data**

- **Why Important**: Real-time inventory levels across different stores and warehouses help ensure accurate demand planning and reduce stockouts or overstock situations.
- **What to Collect**: Current stock levels, restocking dates, and distribution timelines.

**9. Economic Indicators**

- **Why Important**: Economic conditions, such as consumer spending patterns, inflation, and employment rates, influence purchasing behavior.
- **What to Collect**: Consumer confidence indices, disposable income data, and economic forecasts.

**10. Product Feedback Data**

- **Why Important**: Customer reviews and product return rates provide valuable insights into product acceptance and quality.
- **What to Collect**: Product reviews, return rates, reasons for returns, and customer complaints.

## Question 2

What types of customer behavior data (e.g., online browsing patterns, purchase frequency, social media activity) should Zara collect to build more accurate customer segments?

## Answer 2

**Online Browsing Patterns**

- **Page Views**: Track which product pages customers view most often, time spent on specific items, and browsing sequences.

- **Search Queries**: Analyze what customers are searching for, including keyword trends and categories.
- **Product Filters and Sorting Preferences**: Collect data on how customers filter and sort products (e.g., by price, size, color), which gives insights into their preferences.
- **Clickstream Data**: Map out the customer journey across the website, from landing pages to conversions or exits.

**Use Case**: Identify customers who frequently browse but don't purchase, and retarget them with tailored offers based on their browsing interests.

## 2. Purchase Frequency and Order History

- **Transaction Data**: Track the frequency and timing of purchases, average order value, and types of products bought.
- **Repeat Purchases**: Monitor how often customers buy the same items or similar products, which can reveal loyalty to specific categories.
- **Cart Abandonment**: Identify how often and why customers abandon their carts, and segment them based on interest vs. indecision.

**Use Case**: Segment customers by their purchasing behavior (e.g., frequent buyers vs. occasional shoppers) and create targeted loyalty programs or product recommendations.

## 3. Customer Demographics and Psychographics

- **Location Data**: Capture where customers are purchasing from, both online and in-store. This helps to identify regional trends.
- **Age, Gender, Income Levels**: Collect this data to understand who Zara's core customers are in different segments.
- **Lifestyle Preferences**: Psychographic data, such as fashion preferences (e.g., casual vs. formal wear), can be collected through surveys or inferred from shopping patterns.

**Use Case**: Personalize marketing campaigns based on lifestyle preferences, age, and regional fashion trends.

## 4. Social Media Activity and Engagement

- **Likes, Shares, and Comments**: Track how customers engage with Zara's social media content, including which products are gaining attention or being shared.
- **Influencer Interactions**: Monitor which influencers customers are engaging with and the associated products they interact with.
- **Sentiment Analysis**: Use natural language processing (NLP) to analyze sentiment around Zara's products or campaigns on social media platforms.

**Use Case**: Leverage social media insights to segment customers based on brand loyalty and level of engagement with Zara's marketing.

## 5. Feedback and Reviews

- **Product Reviews**: Analyze customer reviews for insights into product satisfaction, quality issues, or trending preferences.
- **Post-Purchase Surveys**: Gather feedback after purchases to understand customer satisfaction and areas for improvement.

**Use Case**: Segment customers based on satisfaction levels, targeting high-satisfaction segments with loyalty programs and addressing pain points for dissatisfied customers.

### 6. Email Engagement Data

- **Open Rates and Click-Through Rates (CTR)**: Track how customers interact with Zara's email marketing campaigns.
- **Unsubscribe Rates**: Identify customers who disengage from email campaigns to refine targeting or content.
- **Abandoned Cart Emails**: Monitor the effectiveness of email reminders and offers sent to customers who abandon their shopping carts.

**Use Case**: Segment customers by their engagement levels with email marketing, focusing on re-engaging inactive subscribers or nurturing highly engaged customers.

### 7. Mobile App Usage

- **Push Notifications**: Track which notifications lead to in-app purchases or engagement, and monitor the effectiveness of personalized alerts.
- **In-App Behavior**: Analyze product views, browsing time, and purchase behavior on the mobile app.

## Question 3

## Answer 3

What data should Zara analyze to determine the optimal location for new store openings (e.g., foot traffic, local demographics, competitor presence)?

o determine the optimal location for new store openings, Zara should analyze a variety of data that encompasses **demographic, economic, geographic, and competitive factors**. Below are the key types of data Zara should consider:

### 1. Foot Traffic Data

- **Pedestrian Counts**: Analyze data on the number of people passing by potential store locations at various times of the day and week. High foot traffic can indicate a good location for attracting customers.
- **Time Patterns**: Identify peak foot traffic times to understand when potential customers are most likely to visit.
- **Proximity to Attractions**: Assess how close the location is to shopping centers, entertainment venues, or other attractions that drive foot traffic.

### 2. Local Demographics

- **Population Density**: Examine the density of the population in the surrounding area to gauge potential customer reach.
- **Age Distribution**: Understand the age demographics, as different age groups may have varying preferences for fashion and shopping habits.
- **Income Levels**: Analyze median household income data to ensure the target market aligns with Zara's pricing strategy and customer base.

- **Household Composition**: Consider family size and structure (e.g., single individuals, families with children) to tailor product offerings.

**3. Consumer Behavior Data**

- **Shopping Habits**: Study local shopping trends, including preferences for online vs. in-store shopping, to gauge how consumers in the area prefer to buy fashion items.
- **Brand Loyalty**: Assess brand loyalty and awareness among local consumers to understand how well Zara is recognized in the community.
- **Fashion Trends**: Analyze local fashion preferences and trends to ensure that the store can cater to the specific tastes of the community.

**4. Competitive Landscape**

- **Competitor Locations**: Map out the locations of competitors, including other fast-fashion retailers and luxury brands, to identify market saturation and gaps.
- **Competitor Performance**: Research sales performance and market share of competitors in the area to assess potential challenges and opportunities.
- **Competitor Offerings**: Understand what products and services competitors offer and how Zara can differentiate itself.

**5. Economic Indicators**

- **Employment Rates**: Analyze local employment statistics, as higher employment levels can correlate with higher disposable income and consumer spending.
- **Local Economic Growth**: Study economic development indicators, such as new businesses opening or infrastructure projects, that might impact foot traffic and customer spending.

**6. Accessibility and Transportation**

- **Public Transportation Options**: Evaluate the availability and proximity of public transportation to the proposed store location, making it easier for customers to access the store.
- **Parking Facilities**: Assess the availability of parking options nearby, as convenient parking can significantly influence shopping decisions.
- **Traffic Patterns**: Analyze local traffic patterns and congestion data to understand how easily customers can reach the store.

**7. Real Estate Trends**

- **Rental Costs**: Compare rental prices for commercial spaces in potential areas to ensure they align with Zara's budget and financial projections.
- **Availability of Space**: Research the availability of suitable retail spaces that meet Zara’s store design and operational requirements.

- **Market Growth Projections**: Investigate projected growth in the area's real estate market to ensure long-term viability.

**8. Community Engagement**

- **Local Events and Activities**: Analyze community events, festivals, or activities that can drive traffic to the store and enhance brand visibility.
- **Customer Feedback**: Consider input from existing customers regarding potential new locations, as their preferences can provide valuable insights.

**9. Surveys and Market Research**

- **Customer Surveys**: Conduct surveys to gather insights on where customers prefer to shop and what factors influence their shopping location choices.
- **Focus Groups**: Utilize focus groups to understand community sentiment towards Zara and its products, as well as preferences for new store locations.

**10. Geospatial Analysis**

- **GIS Mapping**: Utilize Geographic Information Systems (GIS) tools to visualize and analyze location data, helping to identify optimal site selections based on all of the above factors.