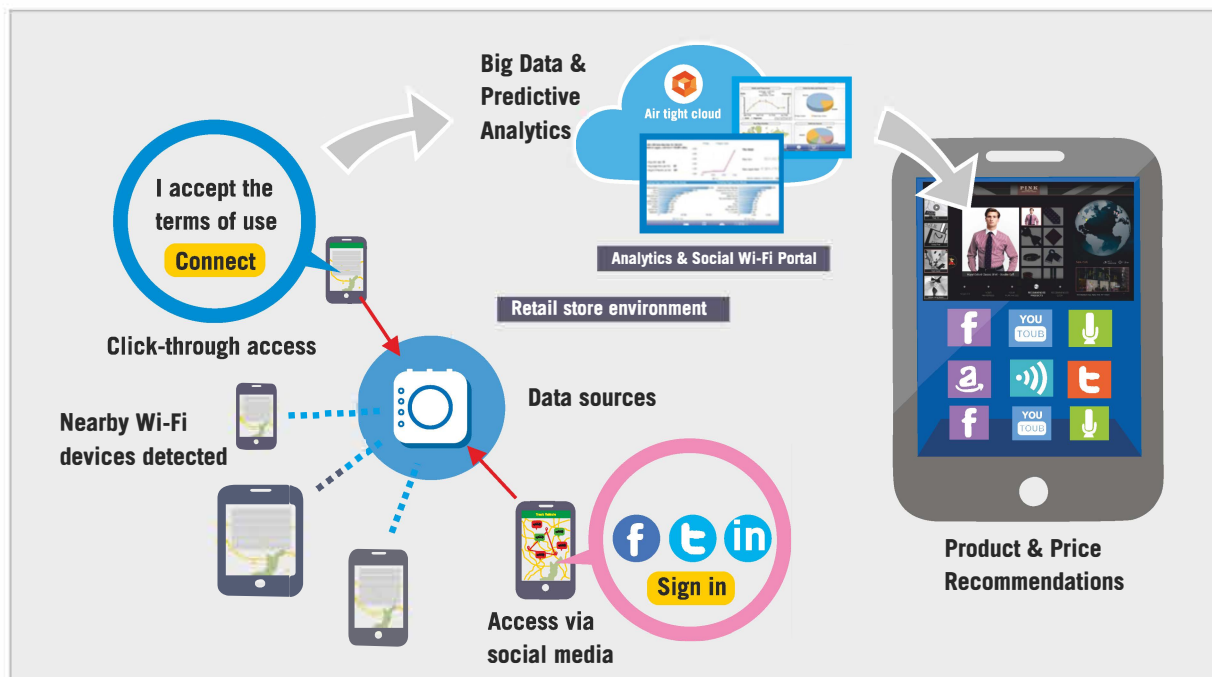# Personalization - Price & Product Recommendation

Shoppers visit to retail store check the prices, read product/store reviews online, compare with competition and move away. Where do they go? Competitors? Online stores? Nobody knows. It is increasing every single day, thanks to technological advances like smartphones.

Survey shows that

84%
of "showrooming shoppers have conducted research while shopping

82%
have their smart phones when they shop

33%
consumers admitted to comparison shopping on a competitor's site while in another retail store

6%
were likely to abandon an in-store purchase for a competitor

These data points show the real story behind reduction in-store sales and loss of loyal customers to competitors. Though there is no single solution to address the showrooming problem, but providing personalized experience to customers shopping in-store can somehow result in more sale and retain your loyal customers. In this paper, we will describe how in-store personalization mobile application solution backed by analytics engine will overcome the problem of showrooming.

Solution description

Happiest Minds in-store personalization solution has built on mobile application backed by core analytics engine running dynamic pricing algorithms that helps in sending contextual price with product recommendations based on transactional data available from Internal (loyalty data, social data, Geo spatial data etc) and External (Neilson Spectra/IRI & Store data, government & News alerts) data sources.

Big Data & Predictive Analytics

Air tight cloud

Analytics & Social Wi-Fi Portal

Retail store environment

I accept the terms of use
Connect

Click-through access

Nearby Wi-Fi devices detected

Data sources

Sign in

Access via social media

Product & Price Recommendations

Here is an example:

Consumer Intent

Shopper launches In-store mobile/Kiosk app which provides store locations (both local & global) and their respective product catalogue

Correlation with Past Transactions

Loyalty Data	Sales & Stock Data

Decision Platform

Price Promotion Data	Social Integration
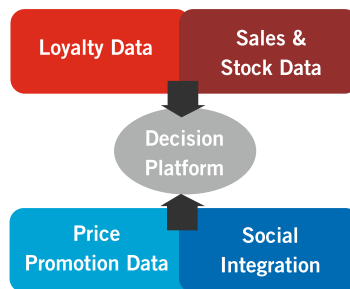
The app runs on a personalization analytics engine. Predictions are run based on both internal and external data sources.

Inference Logic
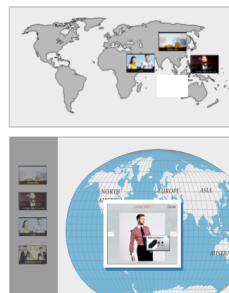
Price and product suggestions based on the context and regional choices

Personalization

Shopper accepts the recommendations & add products to the cart to generate order number automatically. Shopper goes to the till and shows the order number and completes the transaction
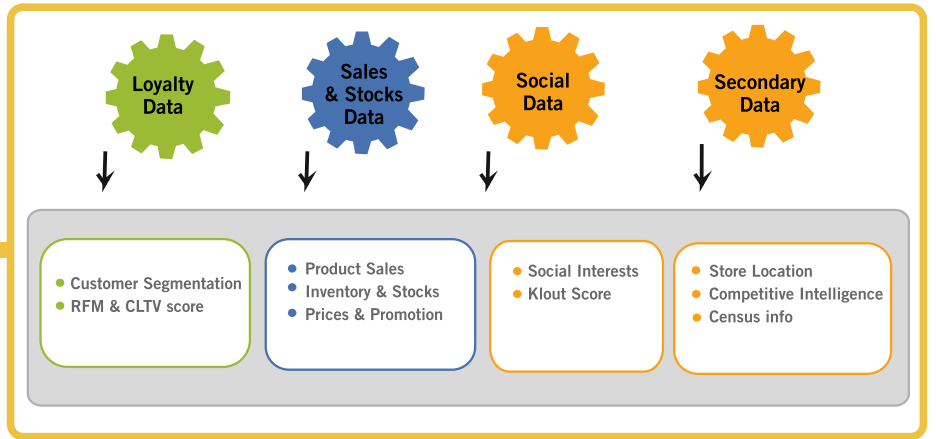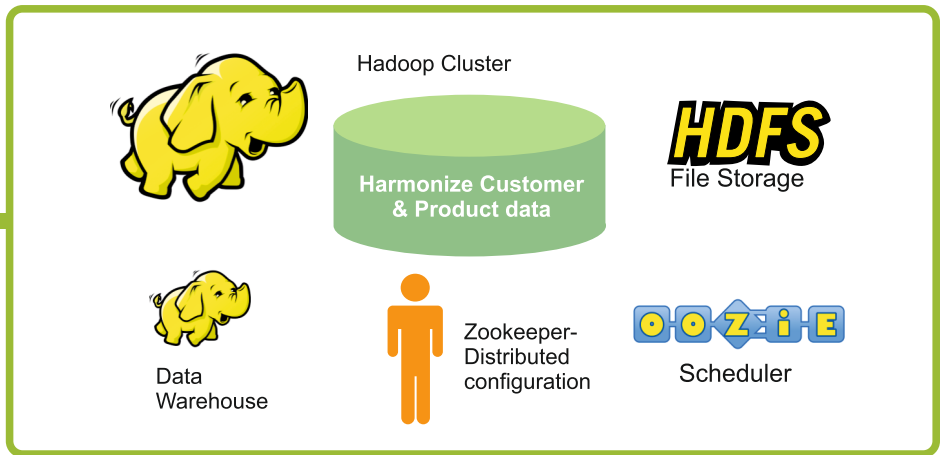
Increase in Sales

Shopper gets product recommendations with a personalized offer including reward encashment. E.g.- Shopper travelling to Singapore gets product & price recommendation with reward points as per regional preferences
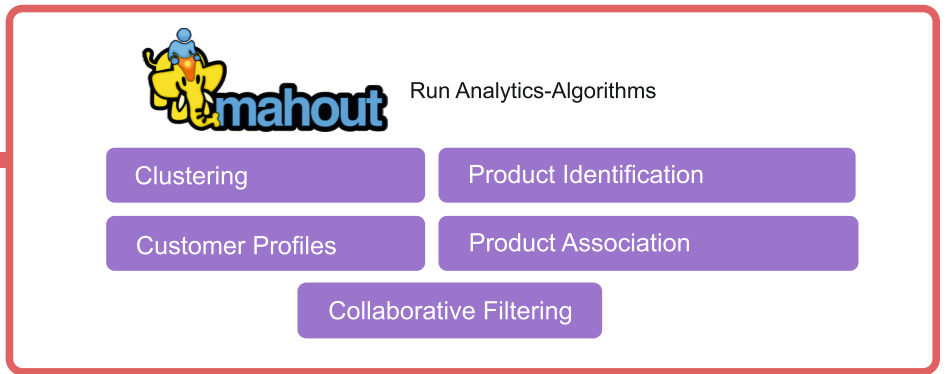
How Personalization Engine Works:
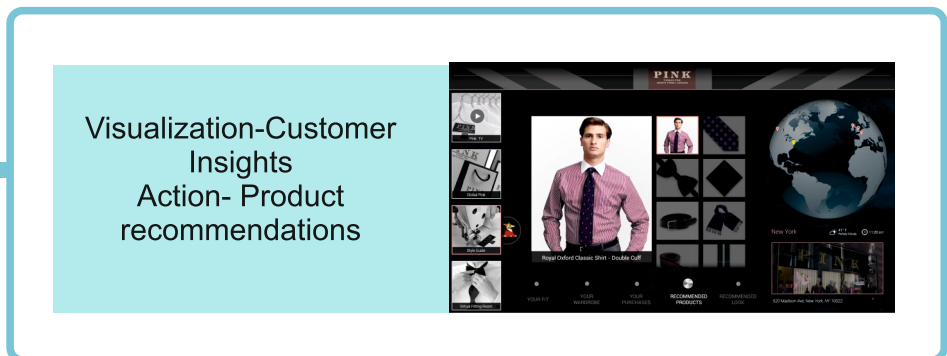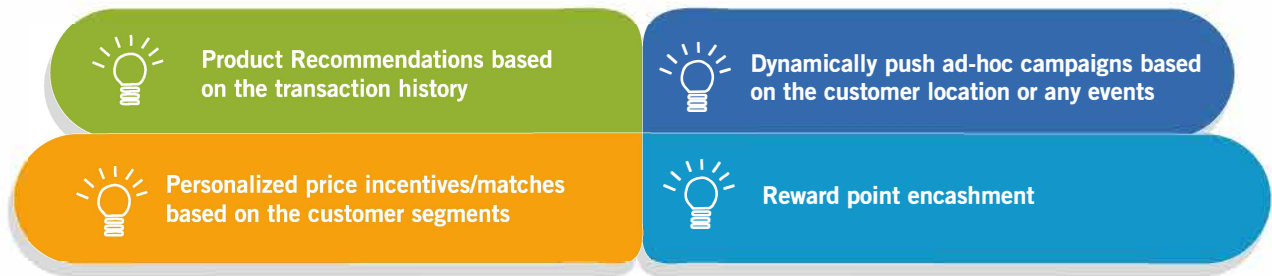
Data Ingestion

Loyalty Data	Sales & Stocks Data	Social Data	Secondary Data

- Customer Segmentation
- RFM & CLTV score

- Product Sales
- Inventory & Stocks
- Prices & Promotion

- Social Interests
- Klout Score

- Store Location
- Competitive Intelligence
- Census info

Data Processing

Hadoop Cluster

Harmonize Customer & Product data

HDFS File Storage

Data Warehouse

Zookeeper-Distributed configuration

OOZIE Scheduler

Analyze Shopping Behavior

mahout — Run Analytics-Algorithms

- Clustering
- Product Identification
- Customer Profiles
- Product Association
- Collaborative Filtering

Data Visualization/ Action list

Visualization-Customer Insights
Action- Product recommendations

Solution Benefits

- **Product Recommendations based on the transaction history**
- **Dynamically push ad-hoc campaigns based on the customer location or any events**
- **Personalized price incentives/matches based on the customer segments**
- **Reward point encashment**

Why Happiest Minds

Real-Time and Contextual Actions

Analytics based Personalization engine based approach enables a set of unique use cases to be enabled, to act during the "window of opportunity" while customers are in the store, rather than after the fact.

Accelerator

A repository of pre-built business rules, analytical models and integration interfaces that ensures acceleration in time-to-market and robustness of implementations.

End-to-End Approach

An end-to-end personalization engine that integrates the in-store consumer mobile application with retail's back-office systems (Loyalty, Sales & Stock, price& promotions) and other external data sources and performs real-time predictive analytics

About Happiest Minds Technologies

Happiest Minds, the Mindful IT Company, applies agile methodologies to enable digital transformation for enterprises and technology providers by delivering seamless customer experience, business efficiency and actionable insights. We leverage a spectrum of disruptive technologies such as: Big Data Analytics, AI & Cognitive Computing, Internet of Things, Cloud, Security, SDN-NFV, RPA, Blockchain, etc. Positioned as "Born Digital . Born Agile", our capabilities spans across product engineering, digital business solutions, infrastructure management and security services. We deliver these services across industry sectors such as retail, consumer packaged goods, edutech, e-commerce, banking, insurance, hi-tech, engineering R&D, manufacturing, automotive and travel/transportation/hospitality.

Headquartered in Bangalore, India Happiest Minds has operations in USA, UK, The Netherlands, Australia and Middle East.

To know more about our offerings. Please write to us at **business@happiestminds.com**

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Born Digital . Born Agile