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Competitive Intelligence Driven By AI

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Course5 Compete – Enterprise Competitive Intelligence Platform

Centralized and integrated platform to enable brands and retailers to strengthen their competitive market strategy and digital footprints and unlock additional value creation

Business Challenges Addressed

- **Respond** to market conditions & disruptions
- **Build** competitive marketing & sales strategies
- **Increase** conversions, sales & profitability
- **Enhance** customer experience & brand perception

Course5 Compete Modules

Market & Competition Sensing

Leverage personalized and real-time insights from a variety of data sources through a centralized platform with enhanced collaboration capabilities, thus driving competitive advantage

Digital Shelf

Drive sales and improve profitability, with near real-time and in-depth insights across the competitive landscape on Product, Pricing, Promotion & Place

Brand Experience

Enhance Customer experience and strengthen brand perception, with in-depth custom and curated insights on customer opinion and product content

Business Impact

- Curated & Custom Insights
- Practicing CI at Speed & Scale
- Collaborative (Sales & Mktg teams) Decision-Making
- Maximised ROI

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Course5 Compete Overview

Key Components

PRODUCT DISCOVERY
Gain insights into how your product is being discovered by customers in terms of browse search and increase reach.

CATALOGUE ANALYTICS
Discover trends in product assortment & stock availability across categories with relevant competitor tracking.

PRODUCT PERCEPTION
Leverage product reviews and ratings from retailer websites to understand your SWOT and improve product gaps.

ASSORTMENT GAPS
Discover opportunities to introduce new products and enhance portfolio.

DELIVERY & LEADTIME ANALYTICS
Compare and analyse your product assortment with that of your competitors to achieve maximum product and pricing effectiveness.

PROMOTION INSIGHTS
Improve promotion effectiveness with insights into promotion assortment and type by different retailers across brands.

PRICE ANALYTICS & RE-PRICING
Monitor prices across retailers and marketplaces and discover violations..

RECOMMENDATIONS & ACTION TRACKING
Receive recommendations and actions for improving Digital Store performance and track them to closure to realize timely business impact

BRAND COMPLIANCE & BENCHMARKING
Analyse product and promotion content and benchmark against brand standards, retailer guidelines and industry best practices to enhance brand presence and customer experience

TRACKING AGAINST BUSINESS KPIs
Ingest business performance data like stock, sales volume, revenue, average order value, conversion rate, NPS etc to track impact of digital store scores on business KPIs

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Why Course5 Compete

Capability to scale for variety of data sources, large catalogs across geographies

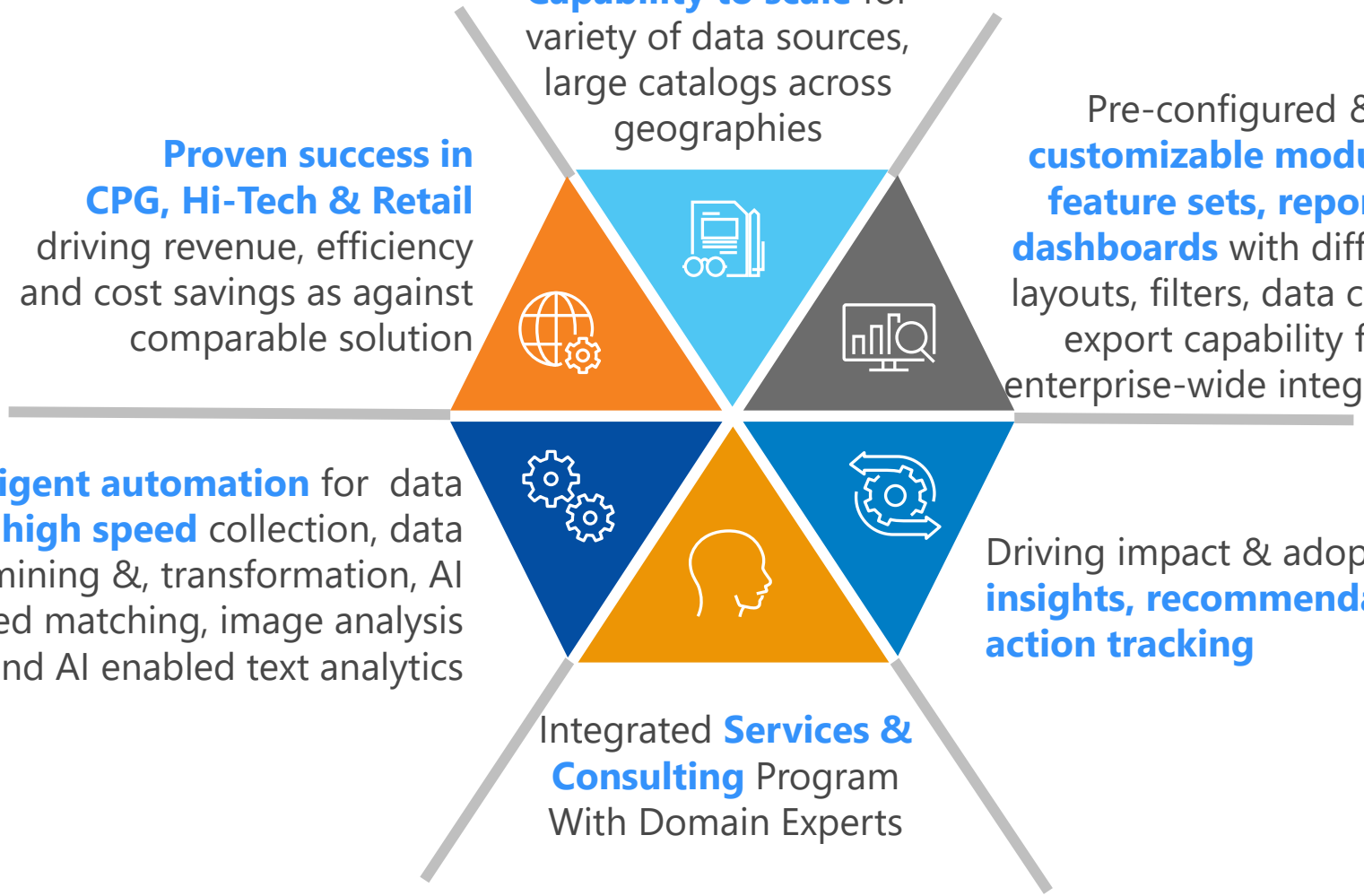
Pre-configured & **customizable modules, feature sets, reports, dashboards** with different layouts, filters, data cuts & export capability for enterprise-wide integration

Driving impact & adoption through **insights, recommendations and action tracking**

Integrated **Services & Consulting** Program With Domain Experts

Intelligent automation for data **high speed** collection, data mining &, transformation, AI based matching, image analysis and AI enabled text analytics

Proven success in CPG, Hi-Tech & Retail driving revenue, efficiency and cost savings as against comparable solution



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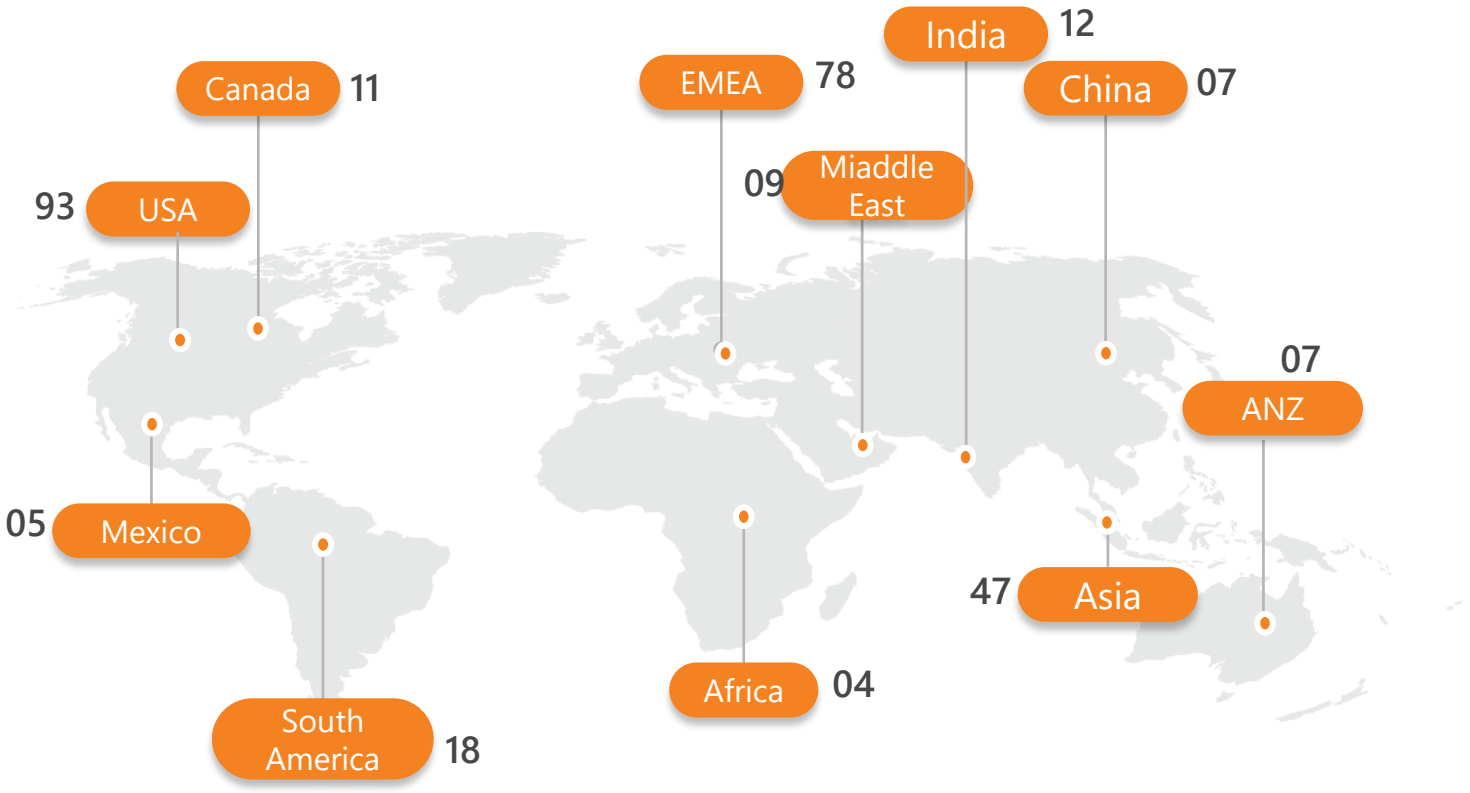
Course5 Compete – Size & Scale



Types of Data Sources

- News & Blogs
- Social Channels
- Industry Portals
- Brand Sites
- OEM Sites
- E-Retailers
- Marketplaces
- Aggregators
- Review Sites
- Comparison Sites
- APIs / 3rd party sources
- Mobile Apps

Variety Of Data Types

- Home Page
- Behind Login
- Captacha Protected
- Product Listing / Details
- POS Bundles / Offers
- ZIP Code Wise
- Search Results
- Review Pages
- Promo Landing
- Store Aggregator Pages
- Native App Stores
- Seller Stores

300+	~30	16	30+	1.5M	800K	3K	100+	200+	98%	96%	95%
Websites	Countries	Languages	Categories	Product SKUs	Attributes	Market Data Sources	Business Data Types	Indices Dashboard	Data Coverage	Data Quality	SLA Adherence

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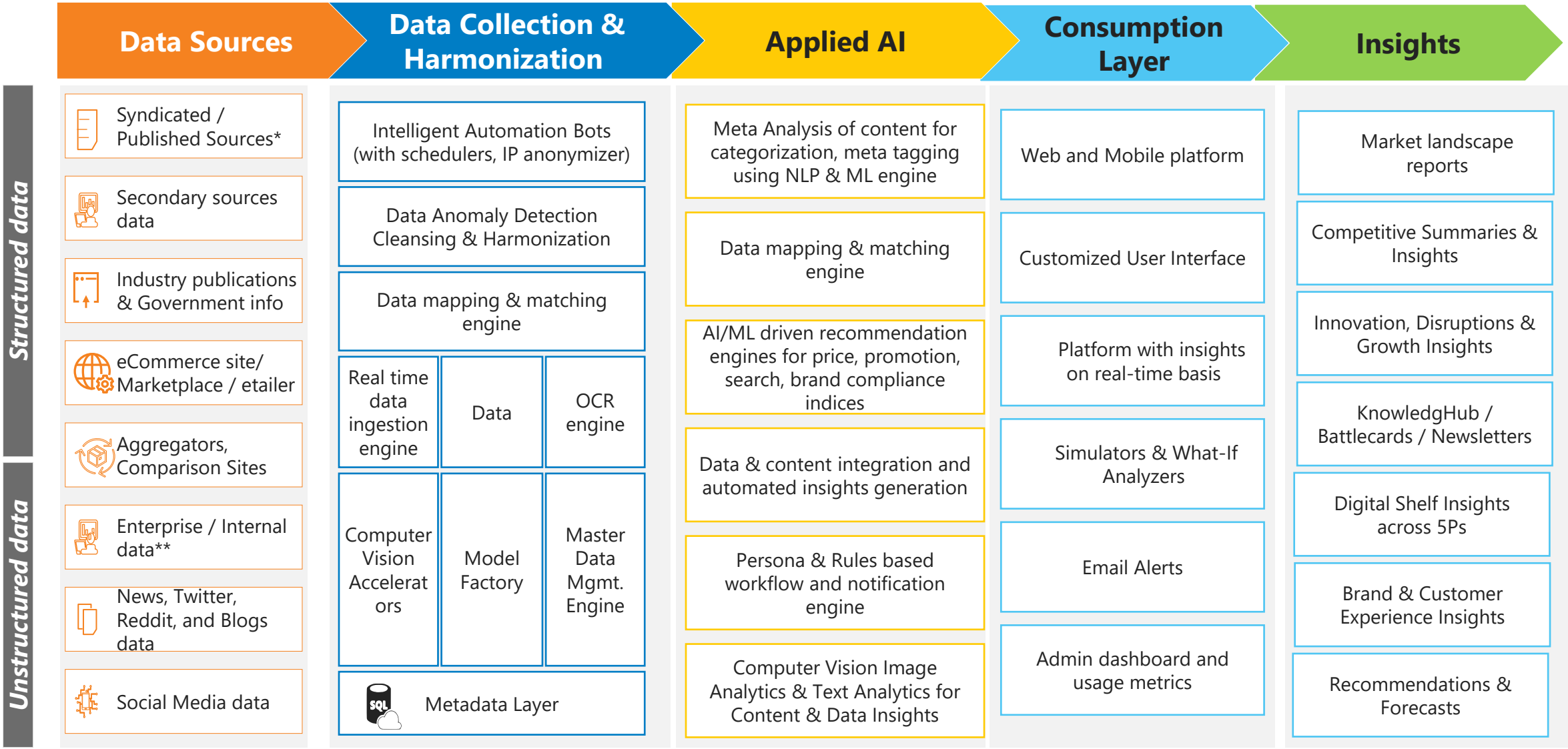
Course5 Compete – Platform Architecture



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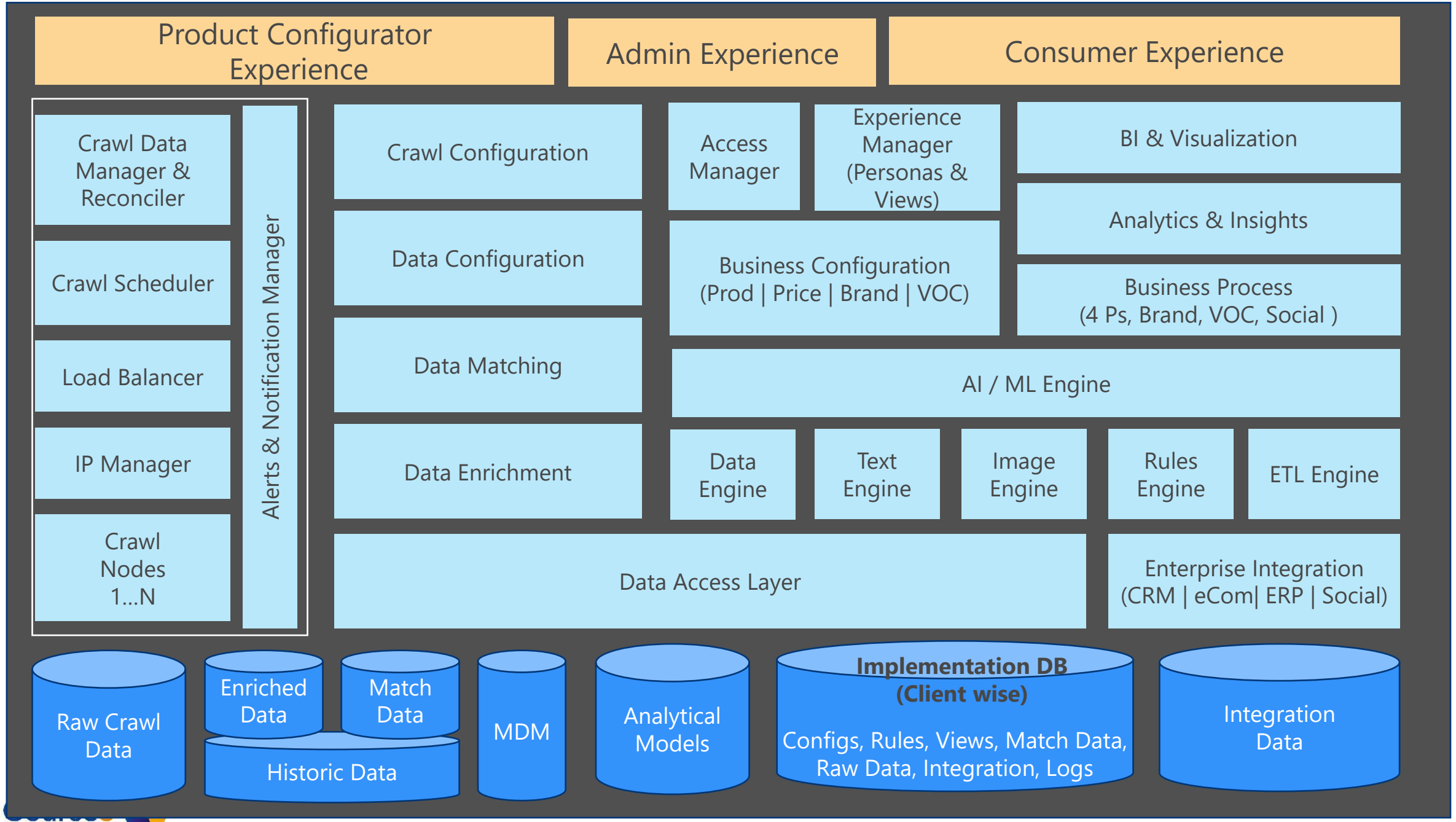
* Depends on licensing terms and conditions.
** depends on type of data and how can we integrate it.



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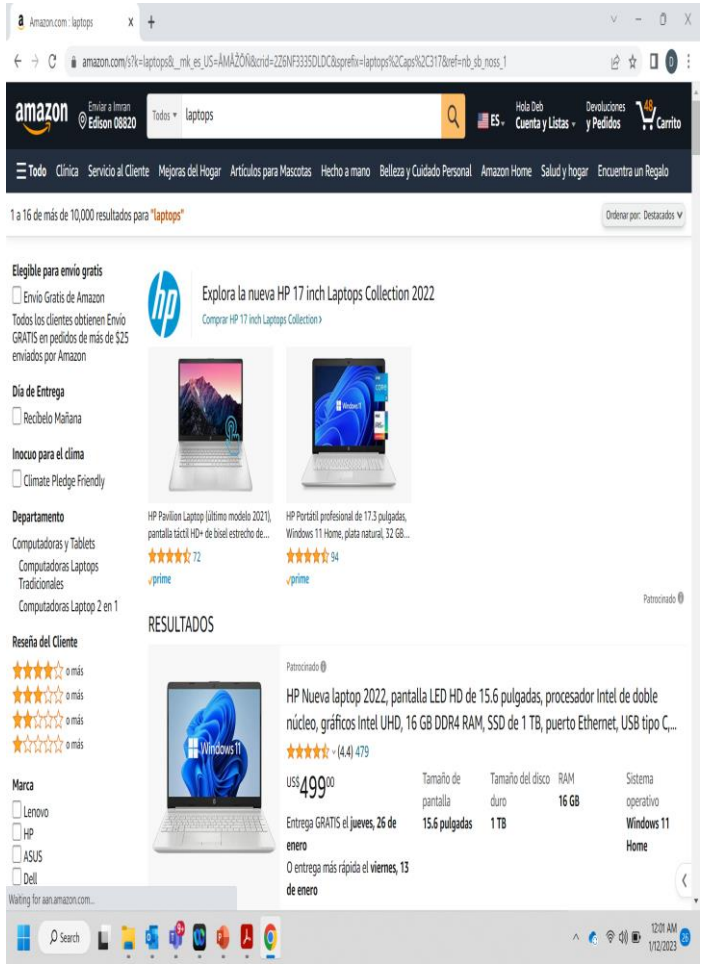
Core Component – Data Harvesting Engine

Retailer Websites



Data Collection Challenges

- Multiple Website Types & Apps
- Multiple languages
- Different page structures
- Different technology
- IP based localized content
- Access restrictions / blocking
- Continuously changing structure
- Data volume
- Multiple data formats
- Content Quality / Anomalies

Compete Data Harvesting Engine

- Setup for individual retailer website
- Algorithm driven structure detection
- Data access using 4 unique methods
- Multi-node server architecture
- Localized IP through VPN
- Rotating IP for prevention of access block
- Multi-server setup with load balancing
- Intelligent data quality module configured per retailer

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Quality Control Measures

99% quality* maintained based on key process controls. Automated check through ETL and other Quality Assurance checks to improve ingestion governance & deal with uncertain website changes

1

Volume Check

Automated Daily and Weekly volume trend in DB

2

Category & Segment

Each product Category & Segment level count validation

3

Component Level Data Validity

Each element level check to ensure valid data

4

Missing Data

Ensure all data filed are available & blank values are validated

5

Business Rule Based

Prices check –
List Price < Promo Price and Discount High > 50%

6

Spec Collection

ETL process check to cover product specification level data

7

Price check

Sample SKUs checked at 2 intervals to validate the prices on website

8

ECoupon check

Price discount offer over certain % is flagged as anomalies

9

Ongoing Process

Monitor issues faced and develop controls to mitigate same

*Dynamic website changes and technical issues on website might have failure on 1 / 500 data ie. < 1%

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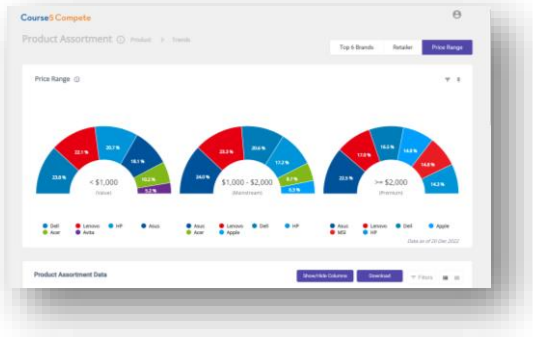
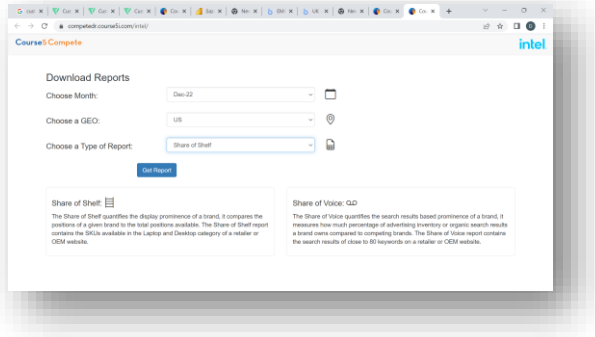
Different Deployment Options



Compete Platform Configured With Base Features & Standard Algorithm

Custom Dashboard + Data Provisioning For Custom Analysis



Custom Data Download As Per Target System Requirements

Data Provisioning Only In Target DB or Internal Systems

Options selected by client depending on

- Specific data requirements
- Custom algorithm and scoring
- Data format and ingestion needs
- Data integration needs at client end
- Data security & confidentiality

In most situations Compete platform can be fine tuned and customized for client specific implementation

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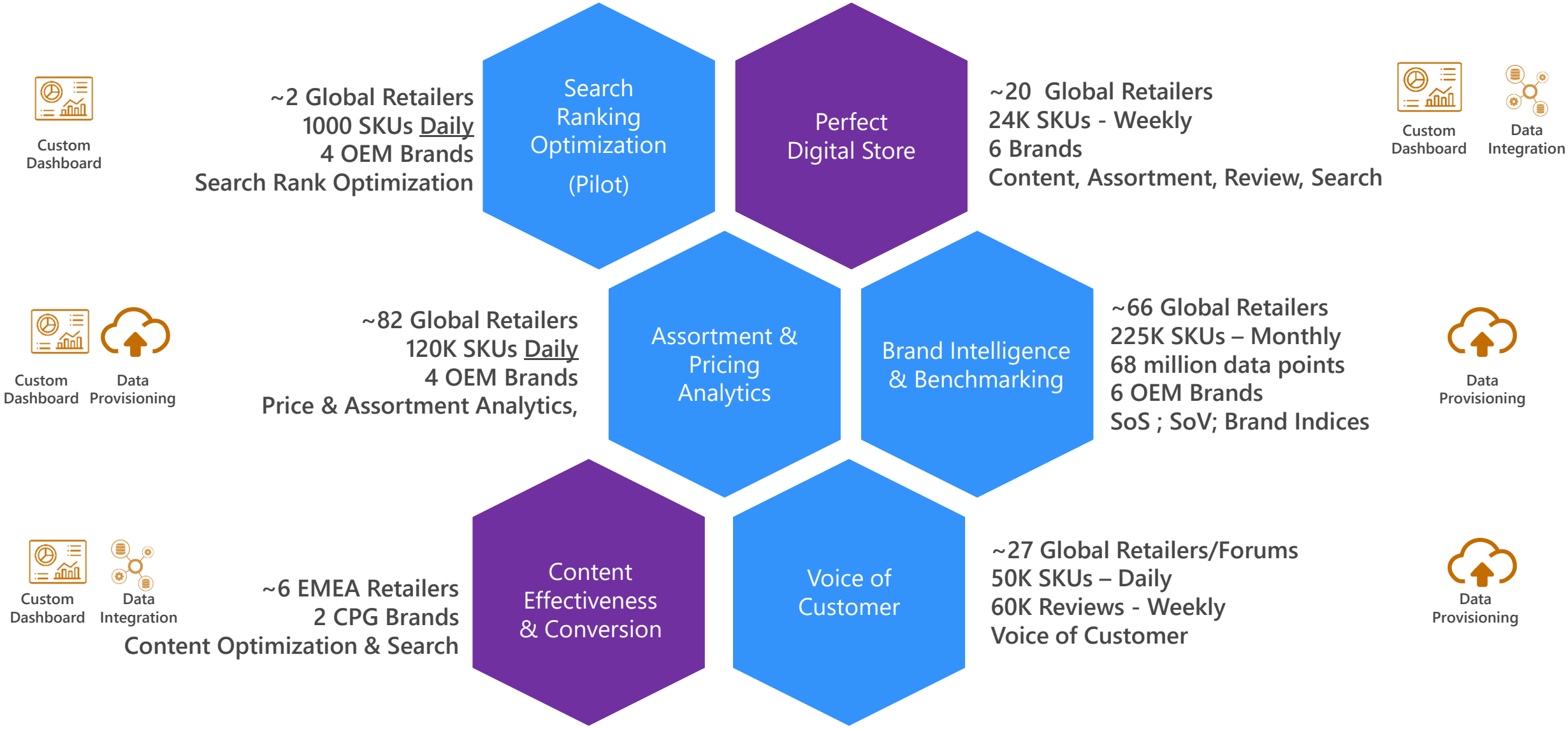
Where Course5 Compete Performs (in the field today)



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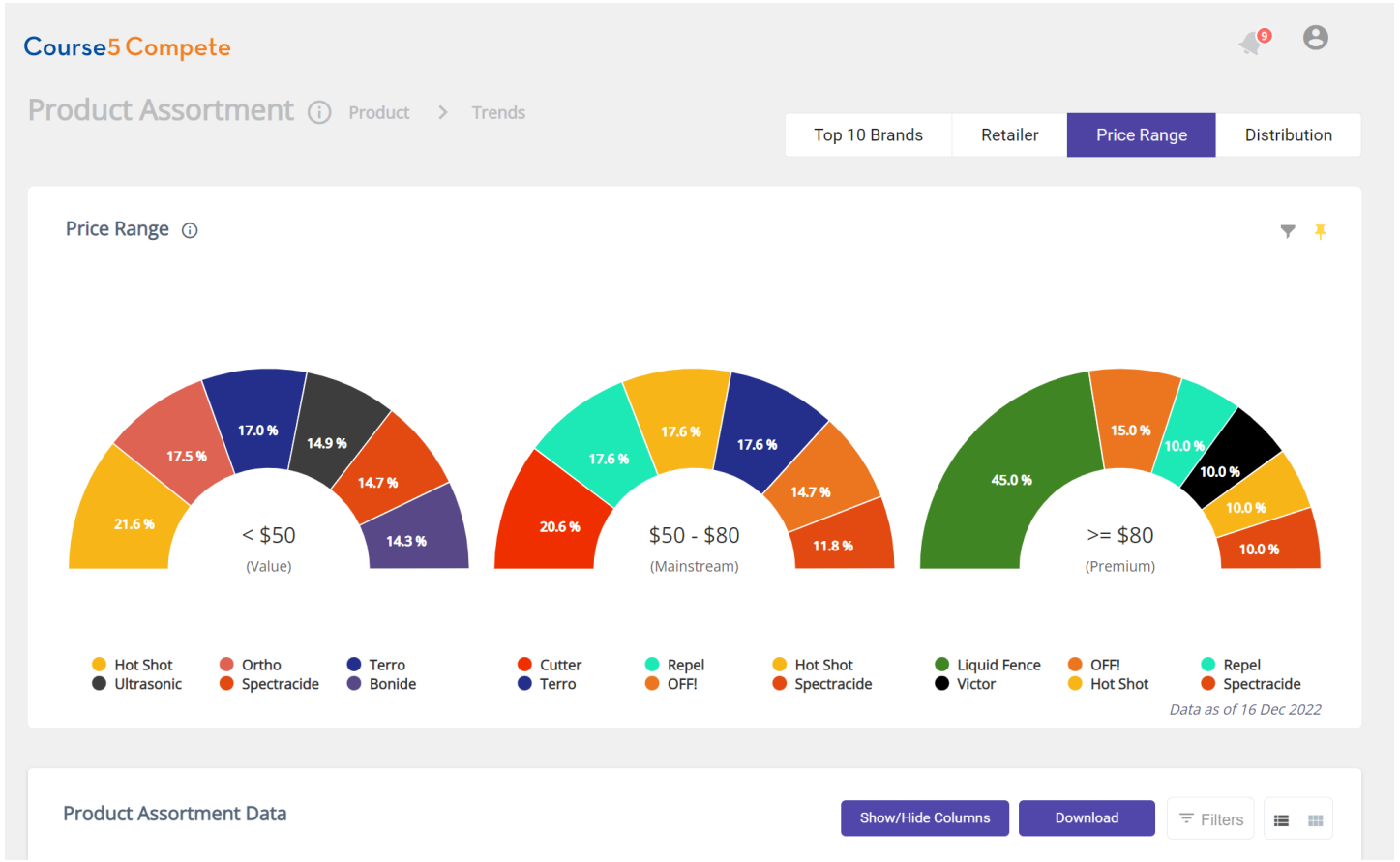
Technology CPG

Course5 Complete - Platform Demo



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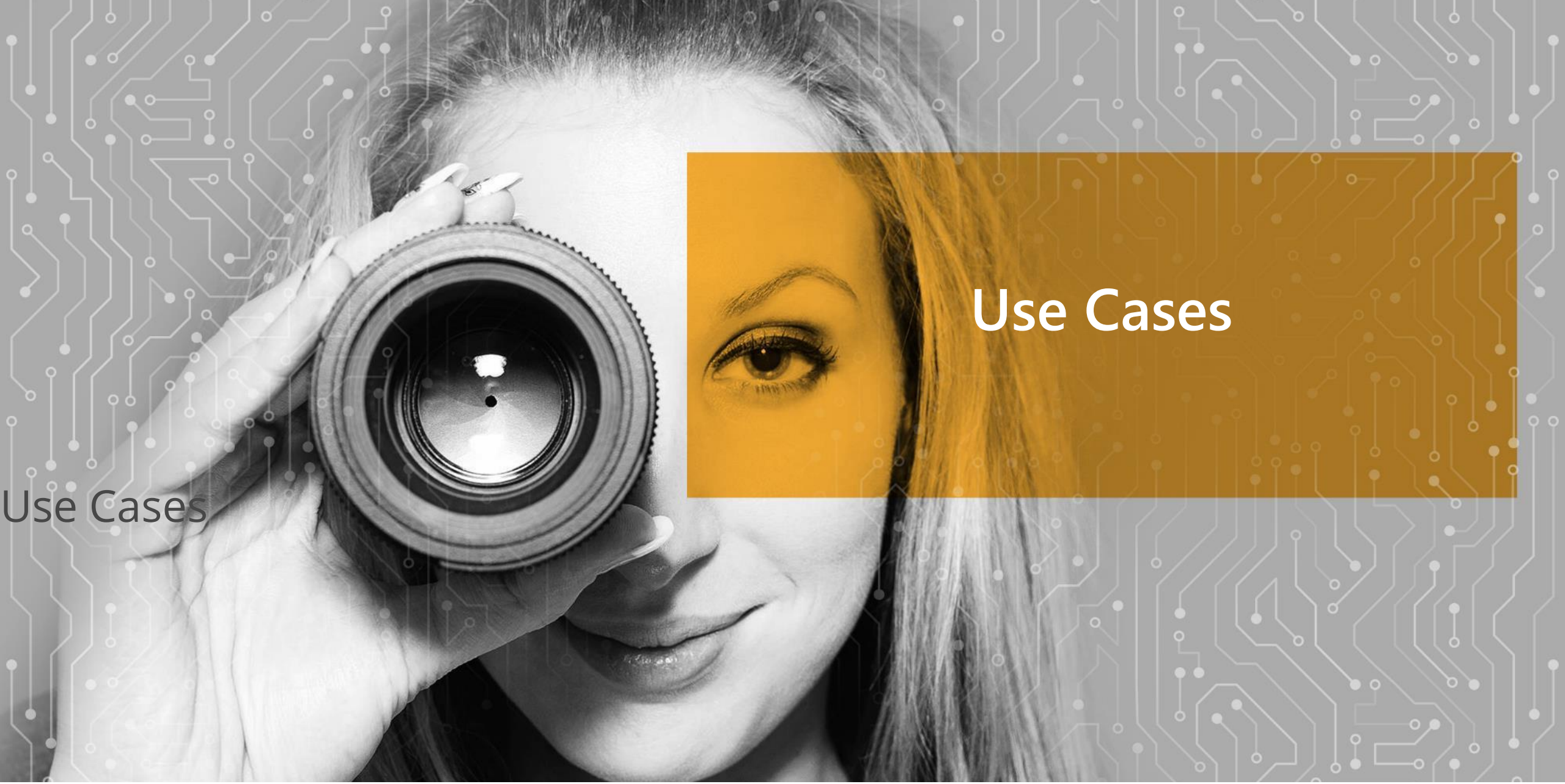

Use Cases

Use Cases

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Course5 Compete - Market & Competition Sensing

Key Features

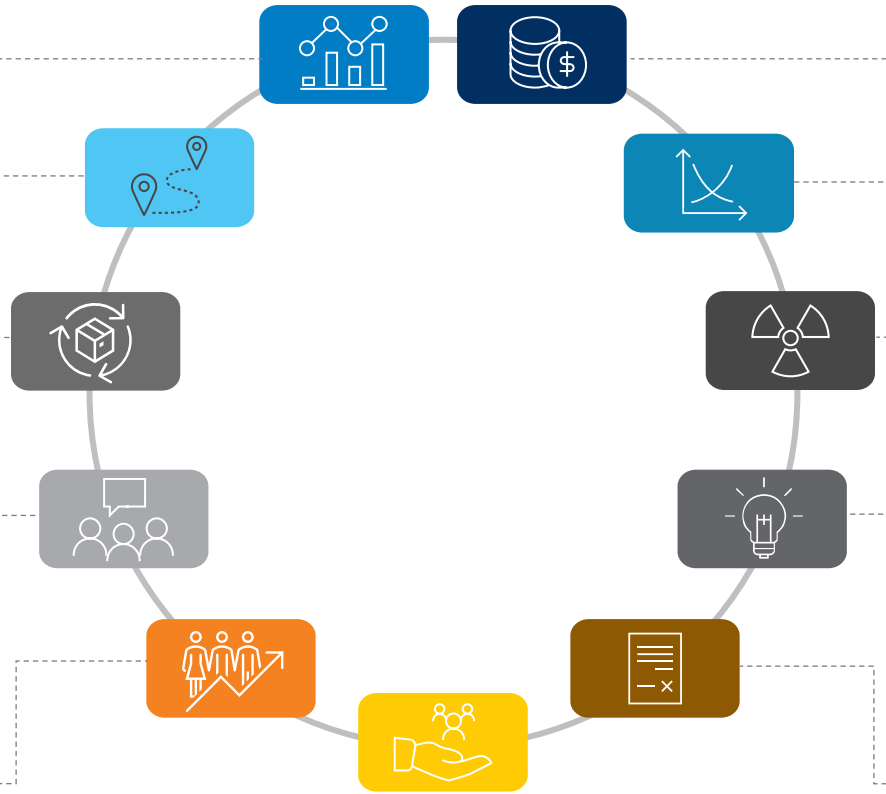
Industry trends and activities:
Industry happenings analyst commentary, expected future trends, consumer habits and perceptions

Company Tracking:
Market Tracking/Updates of the portfolio companies

Key Product and Business Updates:
New product launches/updates to existing products

Rumours /Speculations:
New product updates and discovery, rumours and speculation on products

Competitive Activity/Partnerships, M&A:
Activities of major players and upcoming start-ups, key business updates, important partnerships and acquisitions



Financials
and any other key critical business information

Supply side-Demand side:
Trends in the value chain, supplier activity

Country specific risks:
Government initiatives and risk analysis/assessments

Disruptions and innovations:
Tech disruptions and innovation trends, patent monitoring,

Regulatory/Legal Activity:
Policy monitoring, Industry Regulations and Legal news

Executive moments/hiring patterns:
Executive hiring trends indicating company and industry focus areas

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CASE STUDY : Course5 Compete – MCS for a Semiconductor Giant

Objective

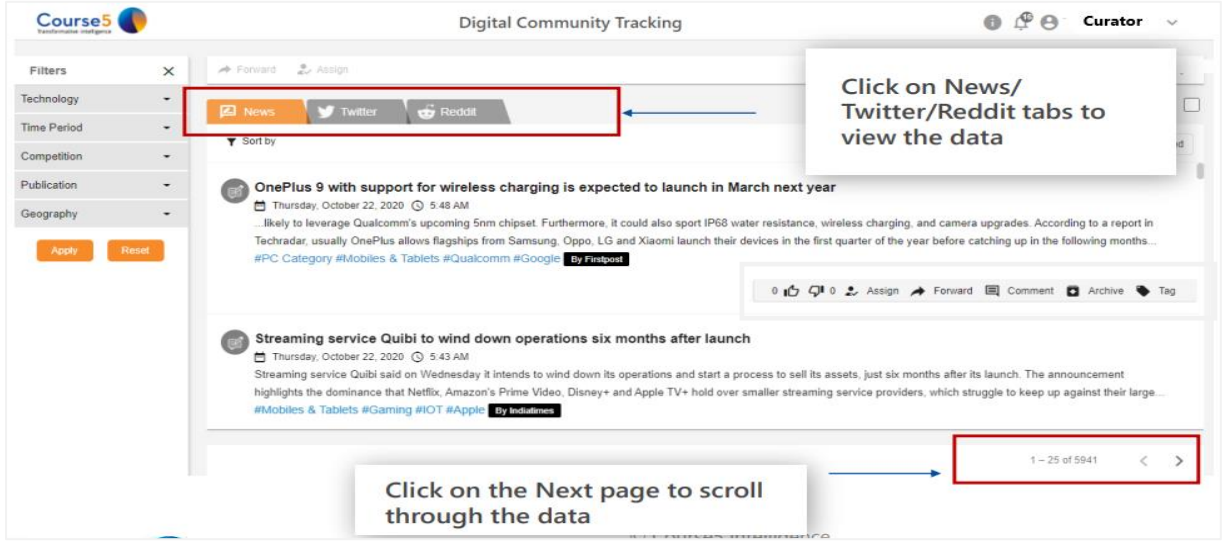
The state of competitive tracking within the client organization was a people-driven, decentralized process. They were having challenges with their approach, including information overload from multiple sources and data duplication. Hence, the client needed a centralized system for tracking, alerting, action-ing and generating insights on the competition using digital data

Solution

- Data harvesting/scraper bot collects data from ~800 news sources, ~700 blogs, and data coming dynamically from forums, Reddit channels, and influencer and organization Twitter handles frequented by tech audience
  - Automated data cleansing, deduplication, and showcasing of prioritized and relevant content - supported by AI/NLP capabilities
  - Near real-time insight and alerts generation and trend monitoring
- Allows for collaboration between curator and stakeholder
- Customized consumption medium for different formats: Dashboards, Alerts, Presentations, and time frequency – Daily/Weekly/Monthly

Business Impact

- **Reduction in information overload** from multiple sources due to access to a single repository of data for perusal
- **85% Reduction in time taken to gather data**
- Quick data anomaly discovery and **removal of 30% irrelevant content** per month
- **22% Increased collaboration** on single platform in lieu of multiple media
- **20% faster decision making** due to quicker access to relevant information



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CASE STUDY : Course5 Compete – MCS for a Leading PC Manufacturer

Objective

The competitive tracking around "As-a-service" market was a people-driven and a decentralized process. They were having challenges with their approach, including information overload from multiple sources and data duplication. Hence, they needed a centralized system for tracking, alerting, take actions, and generating insights on the competition using digitally and socially generated data from communities, forums, news, blogs etc.

Solution

- Data harvesting/scraper bot collects data from ~800 news sources, ~700 blogs, and data coming dynamically from forums, Reddit channels, and influencer and organization Twitter handles frequented by tech audience
  - Automated data cleansing, deduplication, and showcasing of prioritized and relevant content - supported by AI/NLP capabilities
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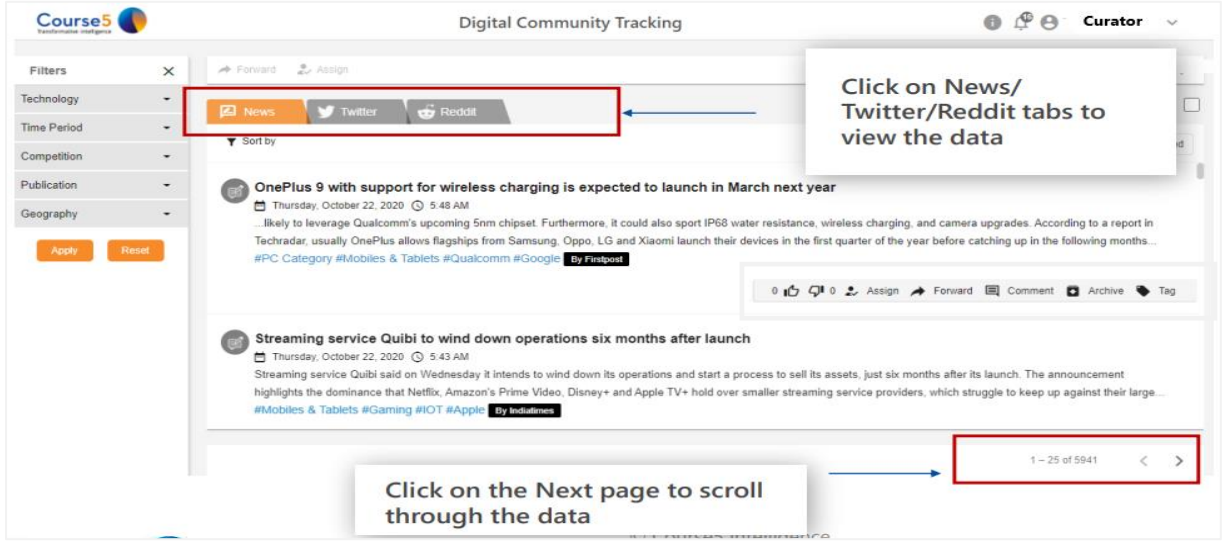
Business Impact

- **Reduction in information overload** from multiple sources due to access to a single repository of data for perusal
- **85%** Reduction in time taken to gather data
- **20%** faster decision making due to quicker access to relevant information
- Quick data duplication discovery and removal of **30%** irrelevant content per month
- **20%** faster in assigning and accessing the global data on as-a-service market



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CASE STUDY : Course5 Compete – Brand Visibility & Searchability

Objective

The client, largest microprocessor manufacturer, was intending to assess and measure brand visibility, share of voice with get clarity how consumers were perceived the brand and if retailers and OEMs are adhering to the committed content quality and visibility on their digital shelf.

Solution

Data harvesting bots collects product attributes from product listing pages across categories and perform site searches against 80 keywords on 20+ Retailer & 10+ OEM sites across US, CA, EMEA & ASIA.

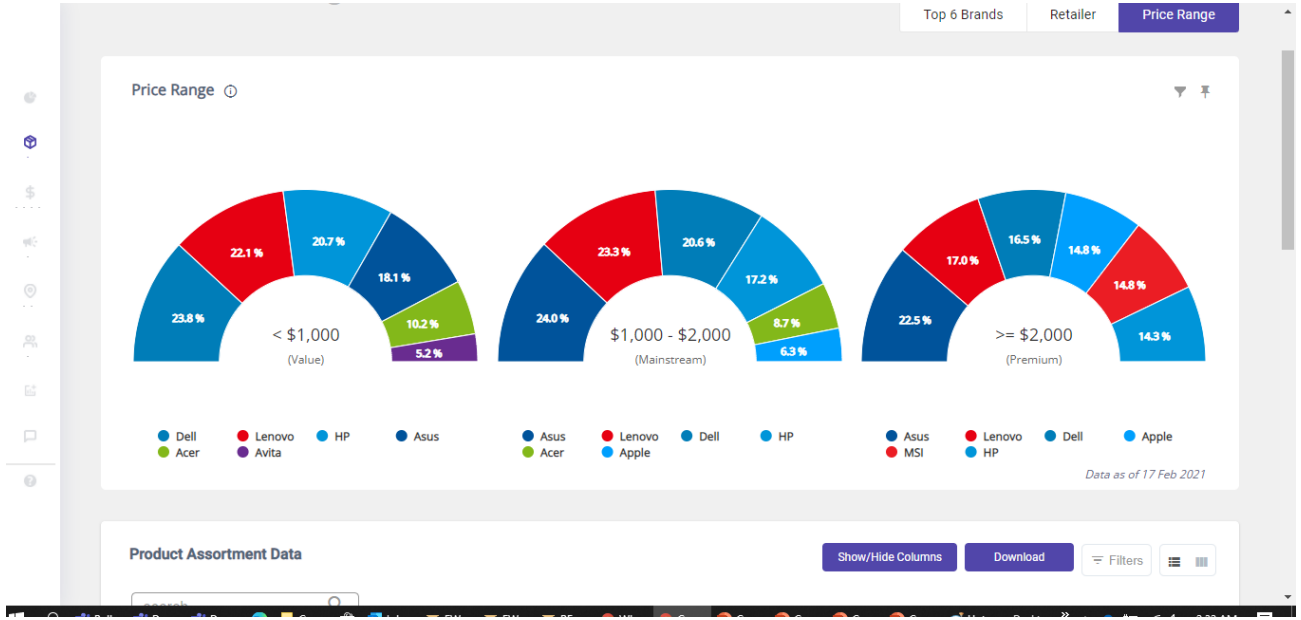
Automated data cleansing, standardization followed by Text Analytics

Data for ~900K SKUs are analyzed every refresh for KPIs like %share of shelf & %share of voice and many others.

Trend analysis to indicate the movement of KPIs (visibility & searchability) of products; to drive marketing actions and content optimization initiatives

Business Impact

- **~8% increase in brand visibility** in 3 months
- Average # of SKUs on top 2 search pages moved up by 17%
- **Alerts in case of search rank** of products with top marketing focus **fell below thresholds**
- Regular KPI tracking (searchability & visibility) across product categories, price bands, retailers and markets.
- Time to monitor, communicate and track visibility and share of search improved leading to higher # of refresh cycles.



CASE STUDY : Course5 Compete – Price Monitoring & Optimization Program

Objective

The client, one of the **largest OEMs in Technology industry**. They wanted to **monitor daily price position** across **8K SKUs** of computer peripheral with accuracy and then make **informed and prompt pricing decisions**, to respond to the market with confidence and predictability. They wanted a solution that can **scale** to support lines of business in near future.

Solution

Data harvesting bots collects product information with all attributes, including prices, stock & promotion information from **50+ Retailers** & **10+ OEM sites on 5 countries**

Automated data cleansing, standardization followed by data matching, automated calculation of price indexes.

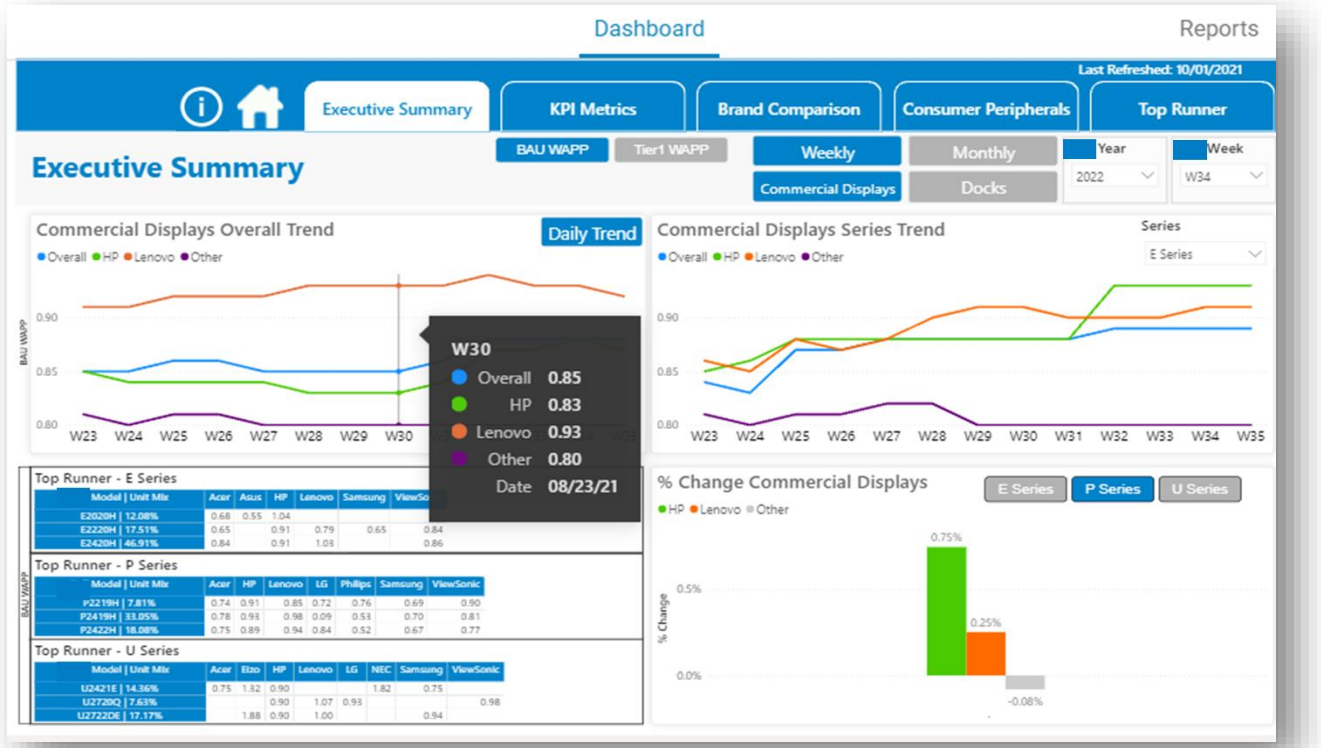
AI/ML based product matching across **20K SKUs** of multiple brands/OEMs

Near- Realtime detection and price changes, stock changes (Out-of-stock) and instant alert notifications for high velocity-volume SKUs

Historic price movements, competitive price indices, price anomalies, stock movement with various data cuts on single dashboard

Business Impact

- **~22% increase in accuracy** of price information over previous solution
- **Scope, Size & Scale** of data increased by **66%** over 2 years
- Improvement in quality, coverage and timeliness of data harvesting and analytics
- **Time to monitor, communicate & action** on product pricing, **improved by ~15%** with the help of central data store and interactive dashboard.



CASE STUDY : Course5 Compete – Brand & Consumer Experience Optimization

Objective

The client, largest microprocessor manufacturer, was struggling to establish a scalable data driven system and process to establish adherence to brand governance, increase brand visibility and improve consumer experience.

Solution

Data harvesting bots collects product content (title, description, image) and promotion banners from 20+ Retailer & 10+ OEM sites

Automated data cleansing, standardization followed by Text Analytics

AI based image recognition to detect brand logo and brand content and detect anomalies.

Rule based brand compliance scoring and reporting brand dashboard.

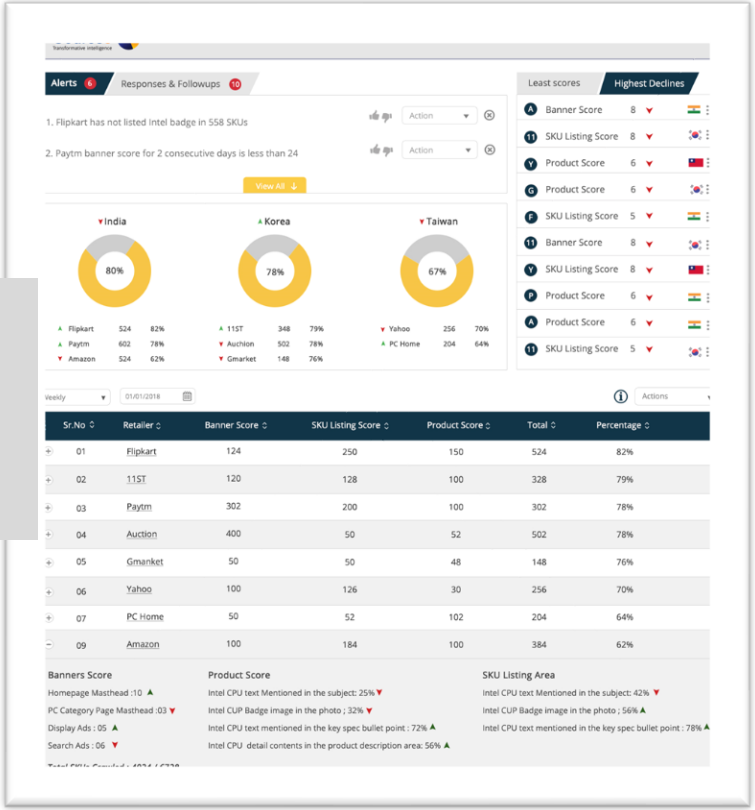
Historic brand score reports published as newsletter to track retailer / OEM performance

Business Impact

- **~27% increase in brand compliance** & brand hygiene KPIs
- **12% reduction** in market development cost (spent for brand value protection across retailers and OEMs)
- Improvement brand visibility and consumer experience
- **Time to monitor, communicate and track** brand guideline adherence **improved by 15%**

Brand Experience Dashboard

Merchandisers uses this to track and assign fortnightly targets to retailers and OEMs for improvement in brand guideline adherence



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AWARDS & RECOGNITIONS

Gartner	Market Guide for Marketing & Competitive Intelligence Tools For Technology & Service Providers	January 9th, 2023
FORRESTER®	Market And Competitive Intelligence Platform Landscape, Q4 2022	November 22nd, 2022
Gartner	Market Guide for Digital Shelf Analytics	November 15th, 2022
FORRESTER®	Now Tech: Market and Competitive Intelligence Platforms, Q1 2022	January 18th, 2022
Gartner	The Gartner Digital Commerce Vendor Guide, 2021	April 14th, 2021
FORRESTER®	New Tech: Market And Competitive Intelligence (M&CI) Solutions, Q1 2019	March 7th, 2019
SCIP	Minerva is now officially a “SCIP Endorsed Product”	2017
CYPHER	Minerva wins ‘Emerging Analytics Product Startup of the year’ at CYPHER 2017	2017