



Pricing Analytics on AWS

www.sigmoid.com





About Sigmoid

Sigmoid is an emerging leader in data engineering and AI solutions.



750+

Employees



Work with **30+**
Fortune 500 firms



>97%

CSAT score



200+

ML models operationalized



5000+

Data pipelines built

Backed by

SEQUOIA 

Awards and Recognition

500™

Technology **Fast 500**
2023 NORTH AMERICA
Deloitte.

***ISG**

Provider Lens 2023 Quadrant

Analytics Services
Rising Star, U.S. ★

Report releasing Jan 2024



America's
Fastest-Growing
Private Companies



Open Source data
solution provider
of the year



FORRESTER
Now Tech:
AI Consultancies,
Q1, 2021 Report

Major Contender in

EVEREST GROUP

Analytics and AI Services Specialists
PEAK Matrix (2022)

Offices



New York



San Francisco



Dallas



Lima



Bangalore



Amsterdam

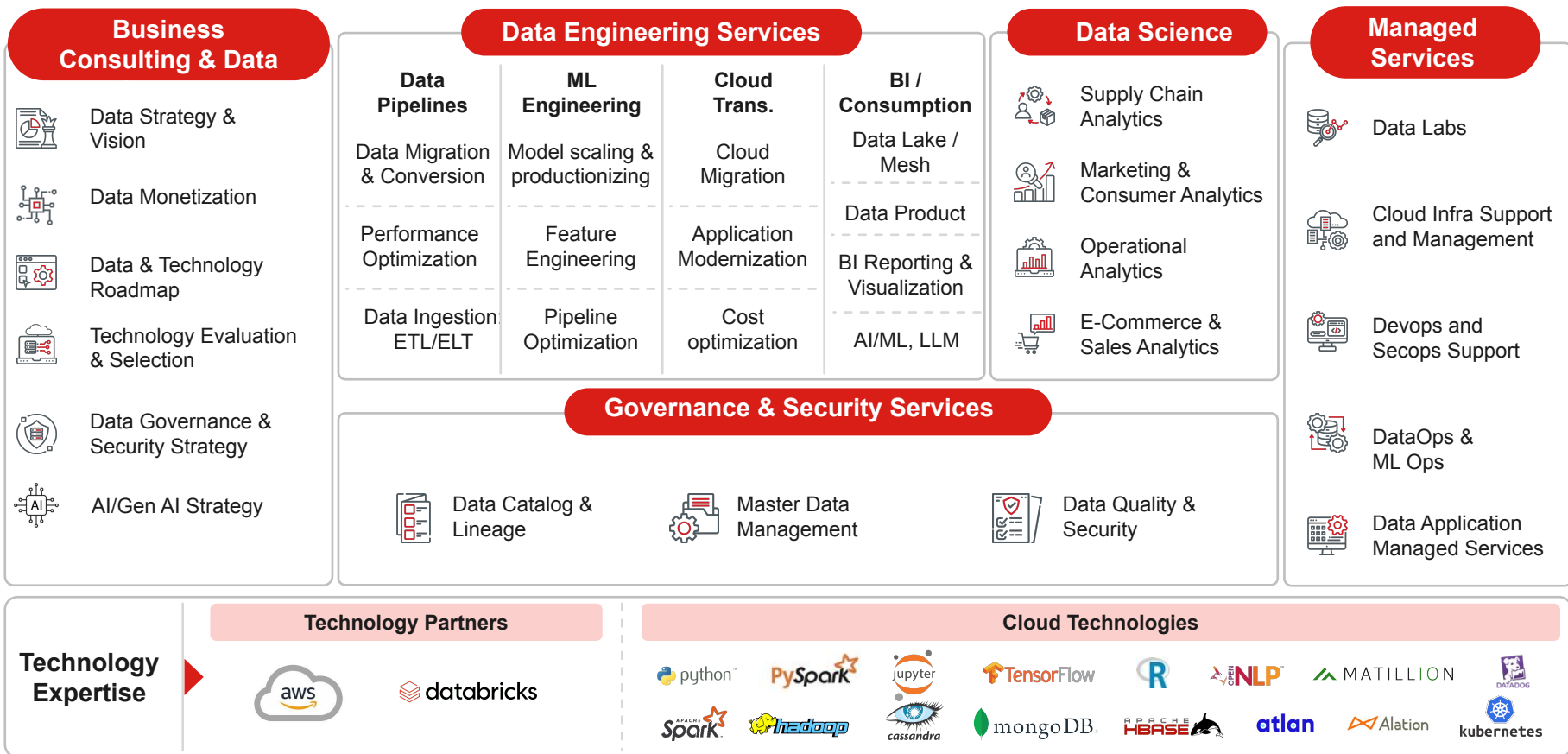


London



Sao Paulo

Enabling Business Transformation with Full-Service Capability Suite



Sigmoid Capabilities - Experience in implementing data solutions in AWS

Sigmoid has worked with more than Five large customers to design, build and deploy solutions in AWS

Data Processing & Transformation:

- **Amazon EMR:** Collaborative Apache Spark-based analytics platform used for big data processing and machine learning.
- **AWS Glue:** Fully managed ETL (Extract, Transform, Load) service for preparing and transforming data.

Data Analytics & Visualization:

- **Amazon Redshift:** Data warehouse service used for analyzing large datasets with either serverless or provisioned resources.
- **Amazon QuickSight:** Business intelligence tool for creating interactive visualizations and reports.

Machine Learning & AI:

- **Amazon SageMaker:** End-to-end platform for building, training, and deploying machine learning models.
- **AWS AI Services:** Pre-built AI services for vision, speech, language, and decision-making (e.g., Amazon Rekognition, Polly, Comprehend, Textract).

Security & Compliance:

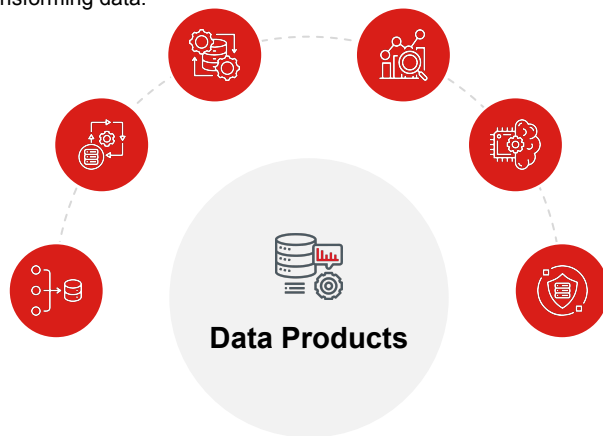
- **AWS IAM (Identity & Access Management):** Identity and access management service.
- **AWS Organizations & AWS Config:** Governance and compliance tools for managing AWS environments at scale.

Data Storage & Management:

- **Amazon S3:** Scalable and secure data lake for storing large amounts of structured and unstructured data.
- **Amazon RDS:** Managed relational database service for structured data storage.

Data Ingestion & Integration:

- **AWS Data Pipeline:** Creating data workflows that move and process data across AWS services.
- **Amazon Kinesis:** Real-time data ingestion from applications, devices, or any streaming data sources.



Sigmoid's implementation of solutions in AWS involves leveraging a combination of services and tools tailored to specific business needs. Sigmoid would facilitate collaboration between data engineers, data scientists, business analysts, and other stakeholders to align the implementation with business goals and ensure success.

Pricing Analytics Capabilities



4 Pillars - Revenue Growth Management



Revenue Management (RGM) is the application of disciplined analytics that predict consumer behavior at the micro market levels and optimize product availability and price to maximize revenue growth.

RGM Visibility & Business Analytics

Assortment Intelligence

Maintain right mix of products across channels, retailers & geography to optimize across profitability & service levels.

Product Pricing

Identify the optimal pricing model for the product portfolio based on elasticities of price, distribution & weights.

Promotion Management

Develop a balance in promotion activities for the portfolio considering promo sensitivity, its impact on the portfolio & the supply chain.

Trade Term Management

Design process to marry right retailers with right products while identifying apt incentives.

Data Layer



Data Lake



Ingestion



Consolidation



Harmonisation



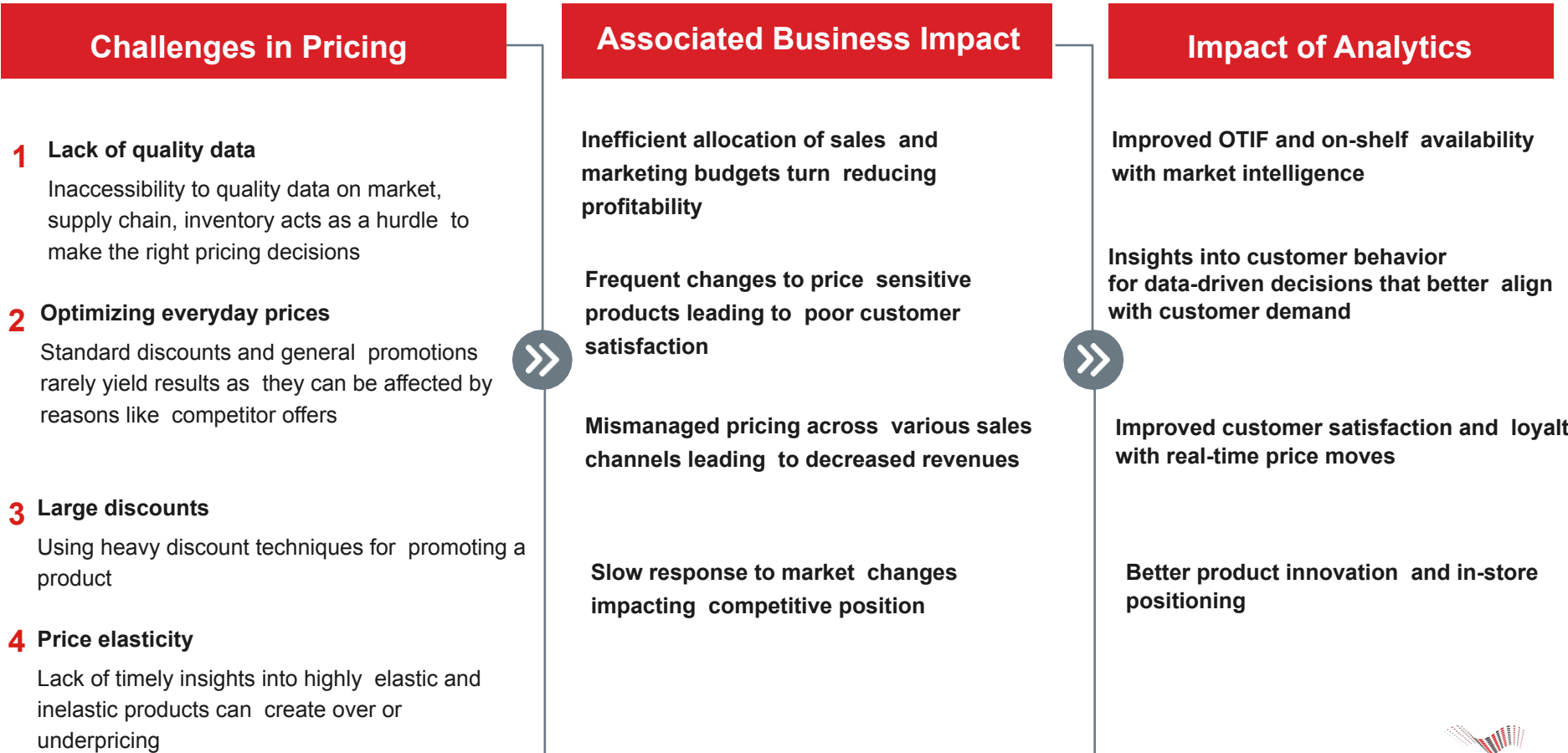
Enrichment



Consumption

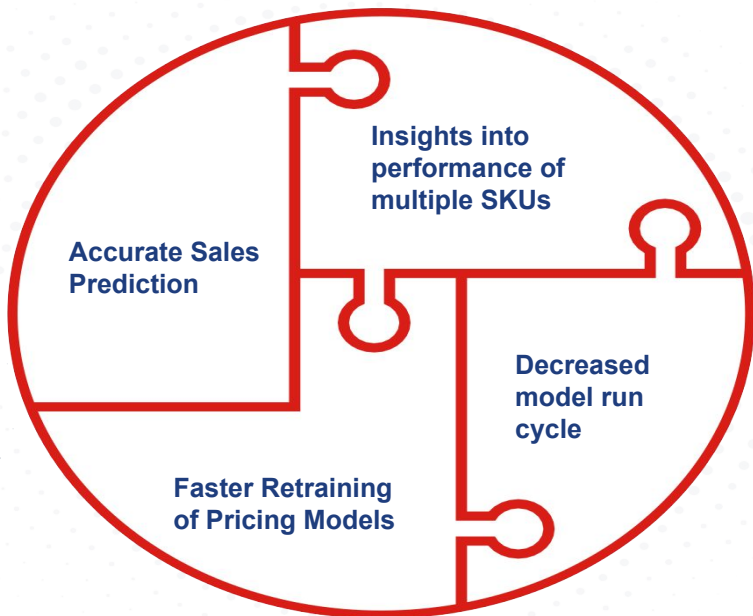
Process Revaluation

Challenges observed by Sigmoid



How does Sigmoid solve the challenges through Pricing Analytics

Sigmoid's data engineering, data science, and analytics services enable customers to build and scale pricing models across geographies accounting for multiple product SKUs. We take care of the model training to maximize its efficiency and ability to deliver high quality results for pricing products in a way that can increase sales and revenue.



Sigmoid's Suite of Solutions



Price Elasticity Analysis



Markdown Optimization



Promotion Efficiency Analysis



Channel Efficiency Analysis



Competition Price Sensitivity



Price Optimization

Driving Sales through Price Elasticity backed recommendations

Client: Leading CPG Giant **Industry :** CPG



Business Problem Statement

Profit lost due to inaccurate pricing leads to either lost volume in overpricing cases or lost revenue due to under pricing cases.



Analytics Solution

Data science-backed approach of developing a model to identify price, distribution & weight elasticities of the end consumer and strategize optimum values to maximize revenue

- A variety of. Data sources like POS Input, promotion & external data sources are used to identify variations in demand & create a model to reflect the same.
- A LOESS model was developed to identify trends, whereas a HLM regression model was built to consider impact of both fixed & random effects.
- This model was used to simulate use cases involving profit/ revenue maximization scenarios at optimum prices & distributions.



Expected Business Value

Strategies strictly based on elasticities of price, distribution & weight helped achieve

- **4 %** average uptick in Retails Sales across the Portfolio.
- **2 %** improvement Gross in margins for the Portfolio.

Enhancing Elasticity models by Predicting SKU Demand transference

Client: Leading CPG Giant **Industry :** CPG



Business Problem Statement

Absence of a structure to estimate sku level impact of pricing changes on other sku units.

Eg: Change in sales for 30 ml shampoo of brand X because of change in price of 500 ml shampoo of Brand X.



Analytics Solution

Data science-backed approach of developing a model to identify demand changes in a set of SKUs as a response to pricing changes in other SKUs.

- Purchase Structures are developed in conjunction with prevailing Business Logic.
- Consumer Panel & POS Input are used to develop switching indexes that represent transfer of demand in cases of non availability
- The above information is elasticities from Econometrics models to understand impact of pricing actions on volume & profit.

The above logic aids in creation of a simulation playground to assess impact of price changes on the entire portfolio.



Expected Business Value

Strategies based on price elasticity & within portfolio correlation helped achieve

- **7 %** average uptick in Retails Sales. across the Portfolio.
- **5 %** uptick in Portfolio Profitability

Engagement Models



Sigmoid's Engagement Models

Project Based



- Starts with consulting/scoping (2-3 weeks)
- Delivery Program Management
- Interim review
- Success criteria met and IP handover
- Option to continue with product support
- Fixed bid contract
- 3-5 months duration given complexity of problem

Benefits

- Cost effective
- KPI/SLA/Outcome driven
- Suitable for Fixed scope of work
- Less overheads

Staff Augmentation



- Understanding of skill requirements
- Profile match and rate card
- Onboarding and monthly billing
- Focused training based on client tech stack
- Project Management support
- 10% backup resources unbilled and trained

Benefits

- Scalability
- Flexibility in resourcing
- Ability to change/redefine scope

Hybrid-Flexi Model/Data Labs/CoE



- Mix of project and staff augmentation engagements
- Requirement gathering
- Requirement classification - as project or staff augmentation
- Joint delivery plan
- Secure resources internally from Sigmoid and bill monthly
- Dedicated PM, Engineering Managers
- Dedicated Management Consultant(s)
- Dedicated Team Leads and Product Owners

Benefits

- Cost effectiveness by focus on output
- Ability to change/redefine scope/Change requests
- Risk/Reward linked to KPI/SLA

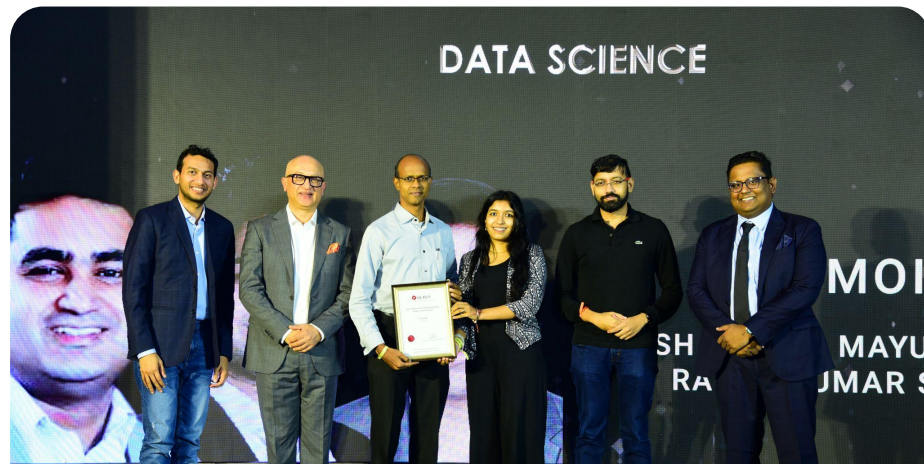
Thank you



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'India Future Unicorn Award'
in Data Science category by Hurun India

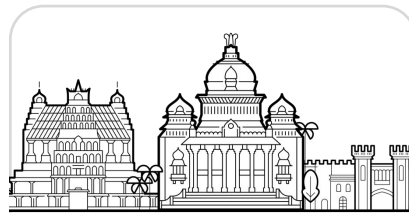
Global presence:



USA (NY, SF, Dallas,
Chicago)



EU (Amsterdam,
London)



India
(Bengaluru)



LATAM (Lima)