

Future of commerce: AI-augmented automated retailing and merchandising on AWS

Powered by TCS AWS Business Unit

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Retailers worldwide are dealing with common challenges

Space Management



- Shift to online - Focus on curbside pickups
- Stores as delivery centers
- Space to help reduce the supply chain stress

Assortment



- Drastic shift in consumer buying behavior
- Balance variety and availability
- Omnichannel assortment

Price & Promotions



- Margins thinning as operational costs are high
- Decreasing wallet size, varying demand patterns
- Balance between profitability in short run vs long term

Supply Chain

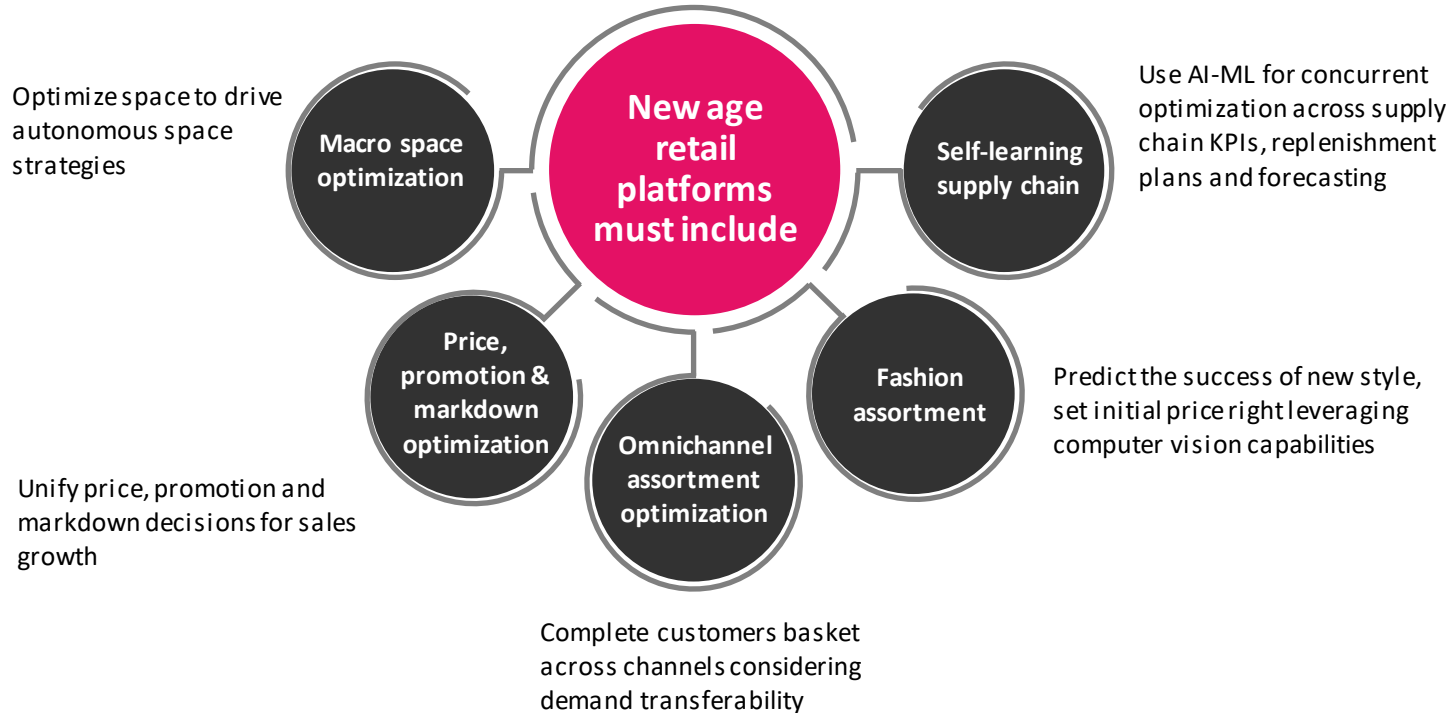


- Varying demand patterns
- Rapid onboarding new suppliers/new items

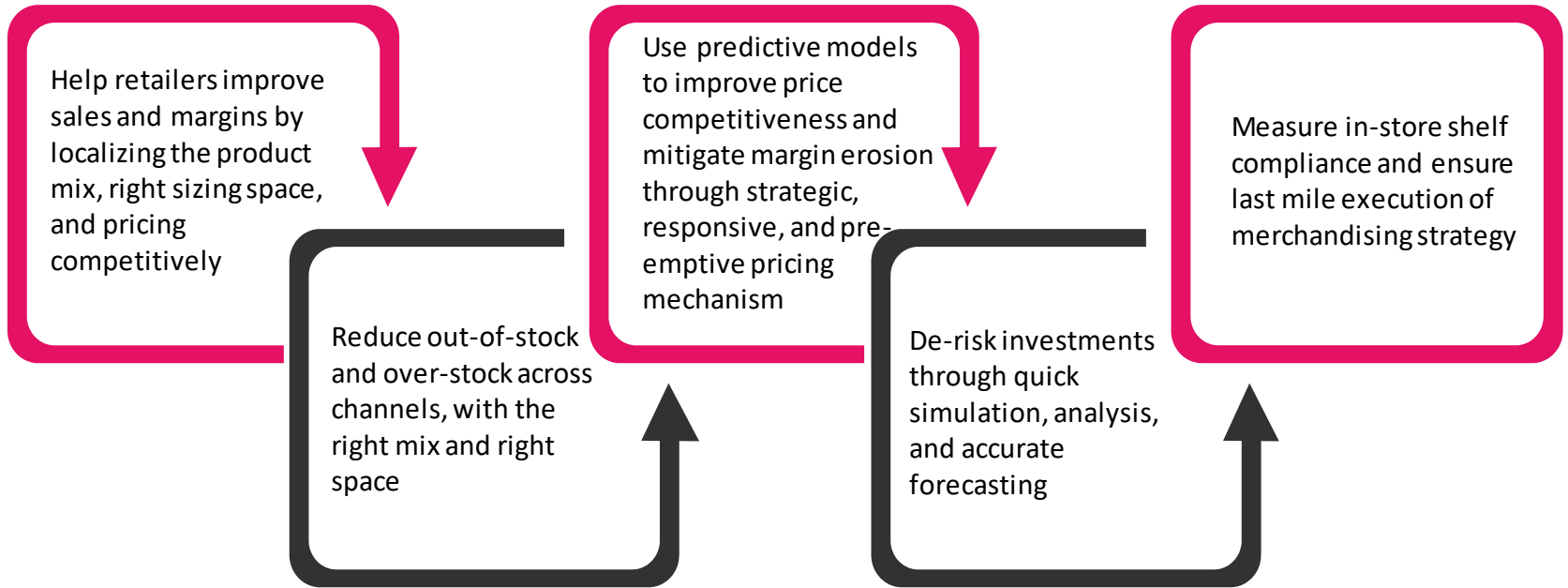
Leverage the power of AI to drive strategic merchandising decisions for the post-pandemic world

Ingredients of market competitiveness and customer delight

Retail enterprises must harness the power of AI with high-dimensional, concurrent, always-on optimization to enable retailers to hyper-localize and optimize their assortment, space and pricing strategies in an integrated way, with greater speed and precision in decision-making.



Driving higher sales and customer centricity



AI in retail



TCS Optumera™: AI-powered retail optimization suite

Strategic Intelligence

Macro Space
Optimization

Assortment
Optimization

Competitive
Assortment

Price
Optimization

Promotion &
Markdown
Optimization

Self-learning
Supply Chain
Optimization

Analytics Toolkit : Insights Hub for Deep Features

Insights at point of decision making : Clustering, Demand Transfer, Consumer Decision Tree, Affinity, Item Elasticity, Taxonomy, Customer Journeys & Intent

AI Core (Automated Decision Pipeline)

Data Wrangling &
Visualization

Data Generation &
Simulation
(GANs)

Sub-vertical
Domain and
Customer-specific
Features

Configured /Pre-learnt AI Models for Deep Learning, NLP,
OCR, Computer Vision
(XgBoost, CART, RL, RNN, CNN, LSTM, Others)

Configured Hybrid
Models

Integrated
Optimization
Engine

Business Logic for Recommendation



Amazon
Comprehend



Amazon Lex



Amazon
SageMaker



AWS DeepRacer



AWS IoT
Analytics



AWS IoT Device
Defender



AWS IoT Device
Management



AWS IoT
Events

Key takeaways

TCS Optumera is a fit-for-purpose product

- The product fits the process. TCS leverages the deep contextual knowledge and robust domain experiences that spans over decades and over 100+ retailers
- Optumera enables integrated space, assortment, pricing and supply chain optimization powered by 35+ patents, indigenously hand-crafted algorithms in TCS labs in collaboration with premier global institutes
- Microservices based architecture on AWS, helps retailers of any scale to swiftly leverage product features, enables addition of new functionalities for specific business requirements

Thank you

To know more about adopting TCS Optumera, write to:

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