

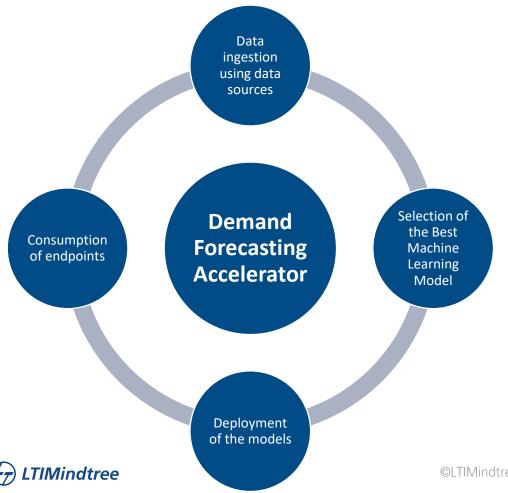
# Let's get to the future, faster. **Together.**

**Prepared for: Demand Forecasting -**LTIMindtree

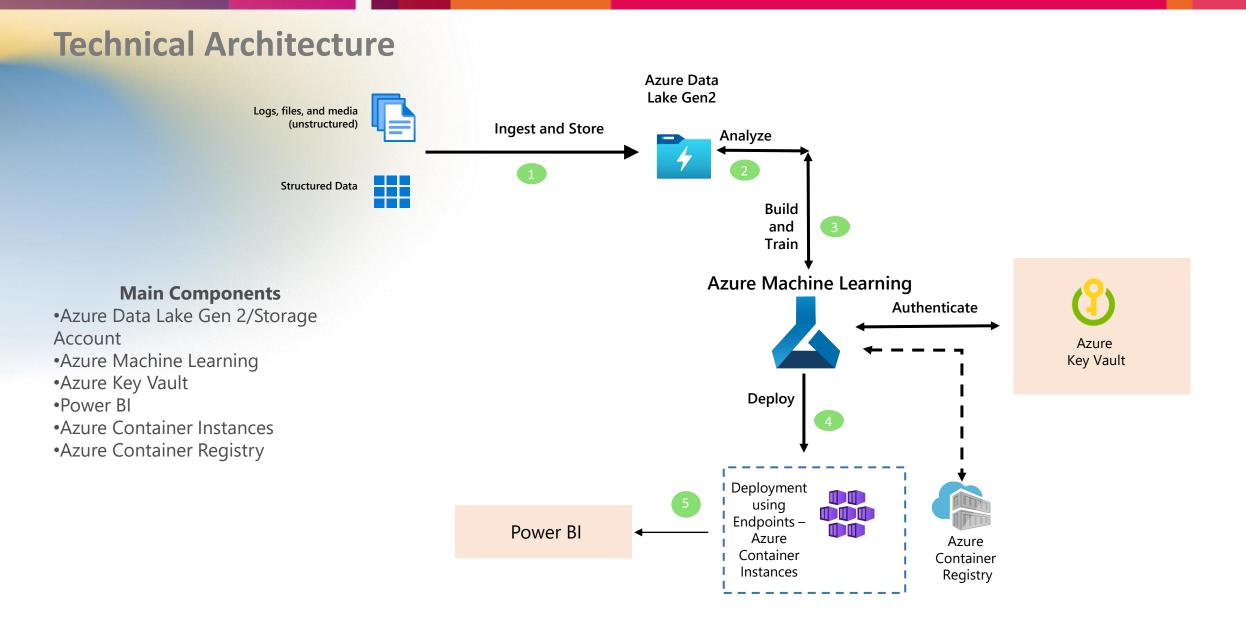
March - 2023

# Demand Forecasting Accelerator – Solution to Forecast Demand at Distributor Level

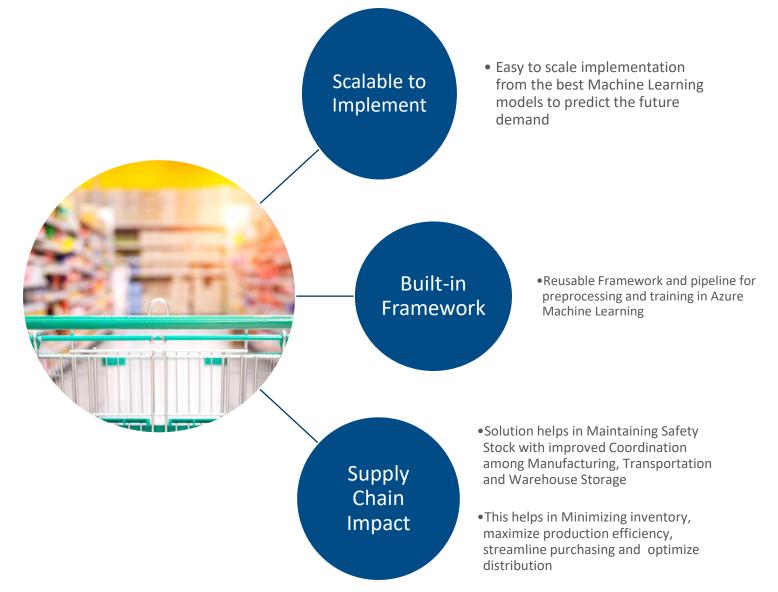
#### An Automated Framework for Deploying the Best Time Series models at Scale



- An AI/ML based solution that predicts demand for the coming months across all SKUs at a distributor level
- Best Machine Learning Model selected according to the data pattern for every Distributor SKU that takes into account seasonality, trend, randomness present in data
- Automated Pipeline on Azure Machine Learning which performs Data Analysis, Data Preparation, Model Training and Deployment
- Logging of various metrics inbuilt in Azure ML for each phase of pipeline for better experiment tracking



### **Demand Forecasting Accelerator – Value Proposition**





### Success Story: Supply Chain – Demand Forecasting at Distributor Level

Global FMCG Company with revenue exceeding \$50B and presence in 150+ countries with a Business scale of 1 Million+ Outlets, 35+ Product categories, 65+ Brands and 1100+ Products

#### **Solution Approach**

The solution approach was adopted for a global FMCG client to improve secondary sales service fill for General Trade Market at Distributor SKU level to reduce the non-moving, slow-moving inventory and optimize the inventory

Machine Learning algorithms were built to forecast the sales demand at Distributor SKU level for the next 1 month

A pilot was built for one market and the algorithms were then scaled to all India level

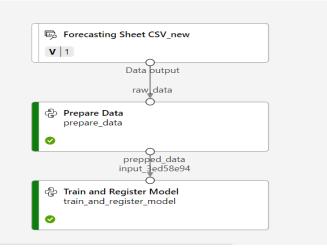
# Solution Impact Significant improvement in Accuracy

Demand estimation in less than 24 hours

## Close to 9.6 billion computations at distributor-pack level

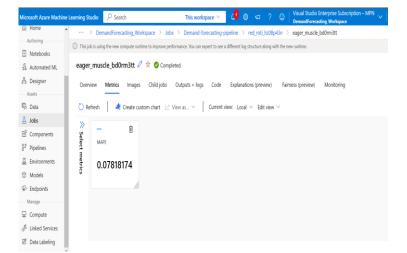


### **Demand Forecasting Accelerator in Action**



ML Pipeline for Data Preparation and Training

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Metrics logged for Data Preparation Phase

Metrics logged for Model Training Phase



### **Demand Forecasting Accelerator in Action**

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Data Stored in Azure Blob Storage

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Environment Created for Deployment

 
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Visualization of Forecasted Data – Power BI



#### **Demand Forecasting Accelerator – Front Page Content**

*Improvise your inventory-based supply chain structure using state of the art machine learning models predicting the future demand at a Distributor SKU Level – all bundled together in Azure Cloud Platform* 

Introducing LTIMindtree's Demand Forecasting Accelerator – a solution that caters to forecasting product demands at the level of Distributor SKU for CPG Customers, thus enabling better product planning, safety stock maintenance with improved coordination among different segments of supply chain.

The Accelerator identifies Best Machine Learning Model for different product category finding out specific group a product belongs to, basis the pattern present in data.

The entire preprocessing and training pipeline makes sure different metrics are logged in for different experiment runs – thus enabling better tracking

Contact us to know more about our Demand Forecasting Accelerator and how it can help you with the best and most accurate forecasts



