

From deviation to remedy

How data lakes are key to removing friction points in the supply chain



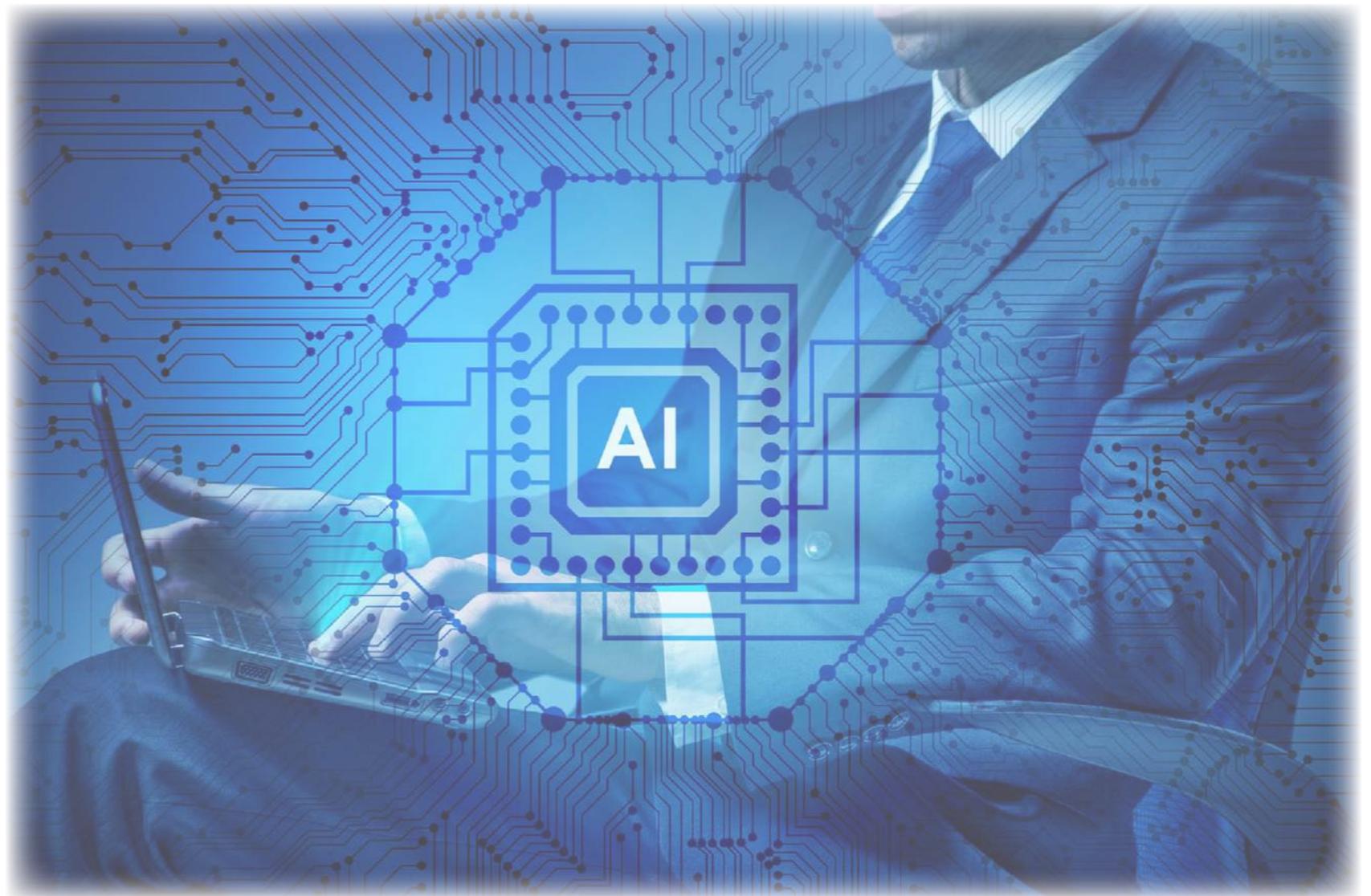
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The supply chain in the Fast-Moving Consumer Goods (FMCG) space has traditionally been highly

siloed, characterised by a lack of visibility across the different areas. This has resulted in minimal line of sight from the manufacturer down to the retailer, which limits insight and leads to numerous points of friction, and resultingly higher costs.

The ability to leverage interactive data sharing throughout the supply chain and mine data in real-time across touch points has, up until recently, been considered an unattainable goal.

However, the evolution of data lakes and advancements in Artificial Intelligence (AI) has the potential to change this, removing the points of friction, optimising the supply chain and ultimately enabling the holy grail of Just in Time (JIT) manufacturing.



Real-time analytics, real insights

A typical supply chain environment consists of

multiple modules, ERP platforms and third-party applications. Each of these is a silo of information,



which limits insight and line of sight across the chain. Data lakes are a simple term to describe a complex ecosystem that finally pools these disparate data sources into integrated pipelines.

This enables the data to be mined intelligently, as a holistic entity, and then visualised in a way that makes sense to the end user. This in turn delivers vital visibility across the different verticals, from warehousing to logistics, manufacturing to delivery, order generation to sales, returns and beyond.

Amalgamating this information and then analysing it in real-time empowers the supply chain with incredible insight, including trend analysis and feedback from all touch points. This in turn enables the points of friction to be identified and removed, smoothing the flow, optimising costs and maximising returns.

The advantage is in the details

Business Intelligence has always revolved around reporting and manually forecasting based on insights of static, historical data. The AI and machine learning elements behind data lakes, however, enable mining and tracking of historical patterns and extrapolating this data to more accurately predict future patterns of behaviour.

However, AI can take insight several steps further, by identifying and including a variety of other influencing macro factors that could affect the supply chain. This ranges from currency fluctuations, to political change and even the weather, all of which influence the cost of



manufacturing, buying patterns and other aspects of the supply chain. By including these factors, as well as micro factors like news sources and sentiment analysis, it is possible to obtain a highly granular and refined forecast of trends from the available data.

The advantage is in the details, but the key lies in the ability to bring all these seemingly disparate data flows into a central repository. This is the crux of the ability to deliver that all important single version of the truth.

From deviation to remedy to JIT

Understanding trends is critical to success in FMCG, as without this it is impossible to gauge demand and facilitate supply. With accurate forecasting,

it is possible to gain a much more accurate picture of both supply and demand. Where there are deviations above or below predicted trend lines, this can be remedied fast to ensure minimal supply chain disruption.

The ultimate goal is to understand what is happening in the supply chain and in the minds

and wallets of consumers

in real-time. Real-time analytics

ensures manufacturers are able to deliver

the right products to the right shelves at the

right time and at the right price. By identifying friction points in the supply chain and smoothing them, it is possible to ensure the ideal blend of cost-effective delivery to meet customer expectations – the nirvana of JIT.

The key is not necessarily about speed, but about meeting expectations, and the only way to do that is to be able to extrapolate on the data, taking multiple factors into account, to provide a proposed scenario that is the best fit for all factors.

Ultimately the goal is customer satisfaction. By optimising the supply chain to gear it toward customer fulfilment, consumers will talk with their wallets, increasing market share and maximising returns for manufacturers. **SR**