



# Supply Chain Digital Readiness in Retail

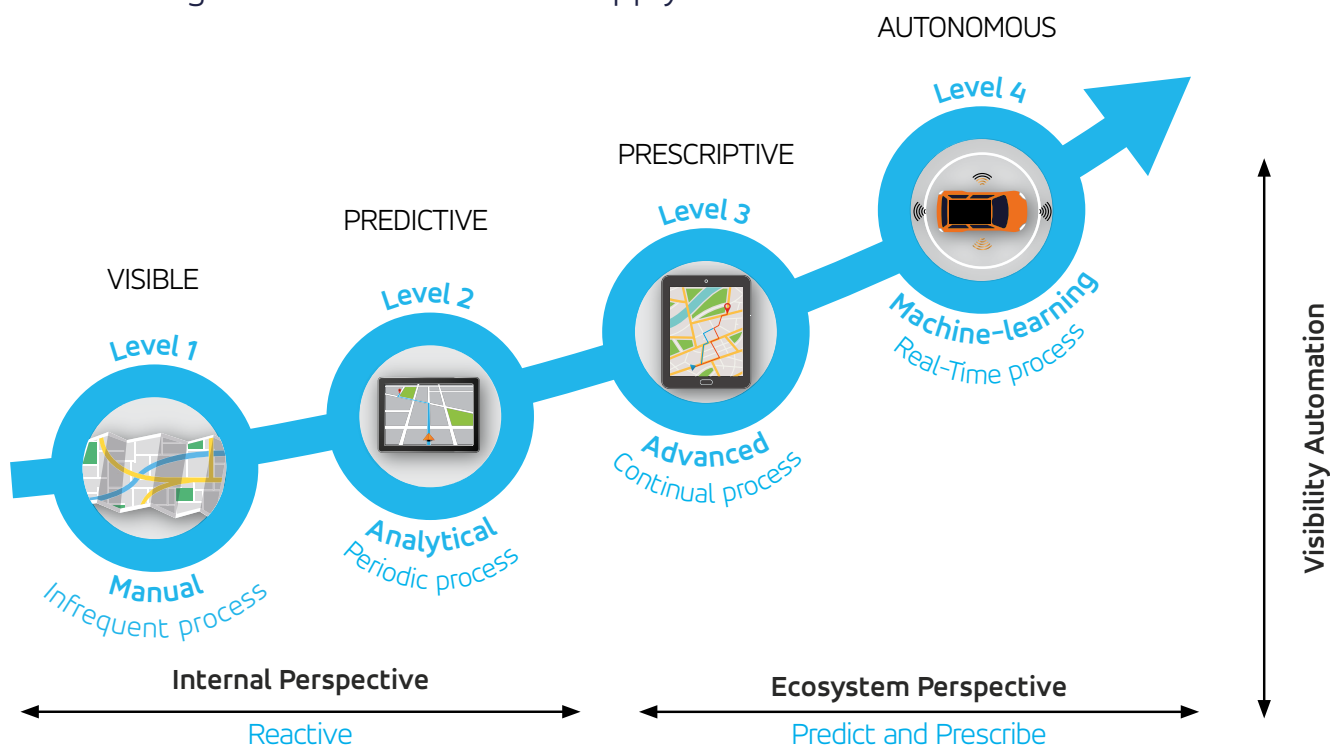
## A Global Survey of 100 Retailers

Global retailers are still at the early stages of digital maturity but are ambitious to accelerate their journey

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WMG at The University of Warwick and Blue Yonder have partnered to assess the digital readiness of retail supply chains. Benchmarked on a four-level scale, more than 100 respondents globally contributed to the final results.

## The four stages of an autonomous supply chain



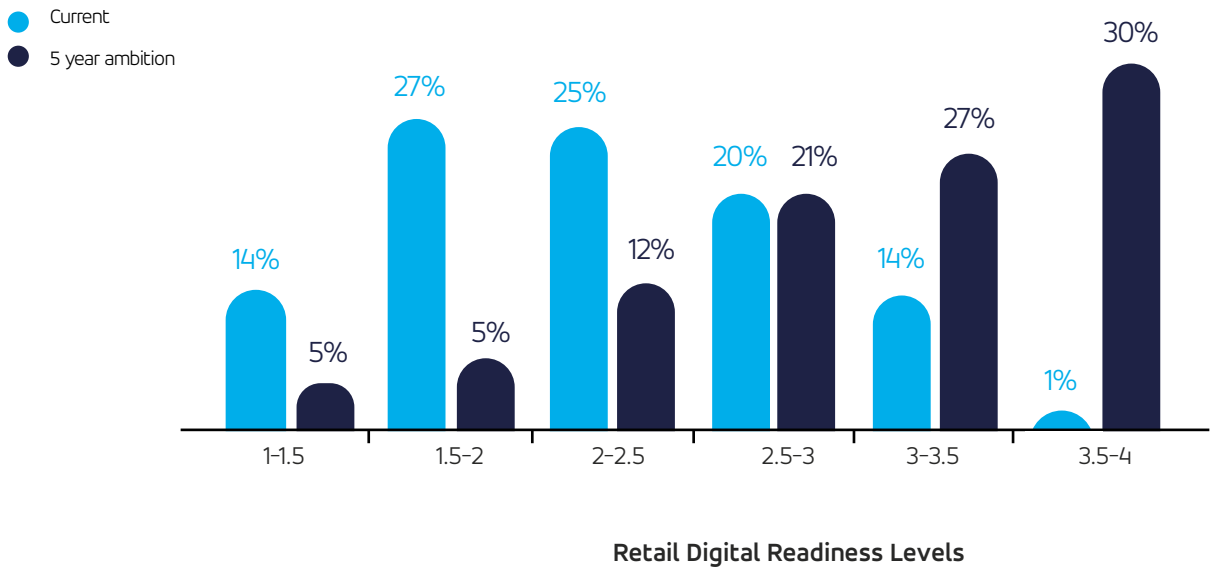
## Majority of retailers are at an early stage of adoption

Retailers are at an early stage of their digital supply chain journey. Achieving an average score of 2.1 there is clearly still progress to be made, especially when also considering that only 15% of respondents have reached Level 3 or above. However, there is a sense of urgency among retailers to accelerate their business models with over half ambitious to achieve a prescriptive or autonomous supply chain in the medium term.



Over 50% of retailers have the ambition to achieve Level 3 or 4 of digital readiness.

Only 15% of global retailers' supply chains are Prescriptive or Autonomous



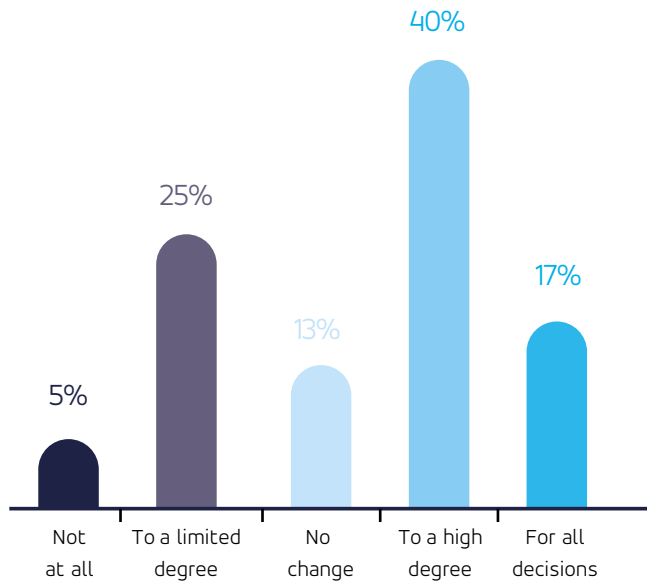
### COVID-19 as a catalyst for change

The survey was conducted in March and April 2020 during the height COVID-19 emergency in many countries. The questionnaire was extended to assess the impact of the pandemic on global supply chains.

### Planning systems worked but required a high degree of manual intervention

Unsurprisingly, 75%-80% of products saw demand fluctuations during the emergency with nearly one third (32%) experiencing extreme variations of 200% or more 1-month post lock-down.

Retailers made big efforts to adapt to the conditions. In general they felt their planning systems were effective, but significantly they required a high degree of manual intervention. Notably, their processes were more effective in responding to decreases in demand than increases.



To what extent was human intervention required to augment your planning systems?

### No 1 pandemic lesson: More supply chain agility is required

Unsurprisingly, the top lesson from COVID-19 was the imperative to improve agility. Retailers saw the need focus on flexibility and to prioritize investment in demand forecasting, visibility and automation.

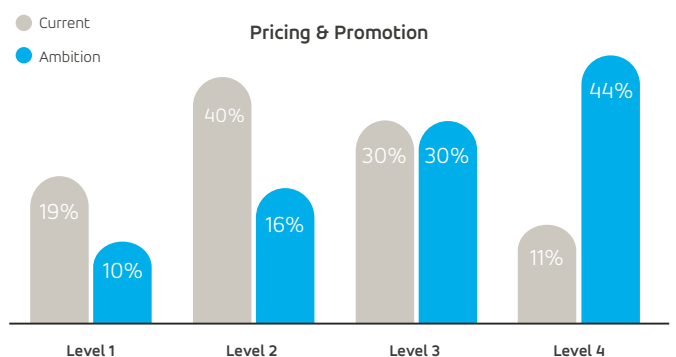
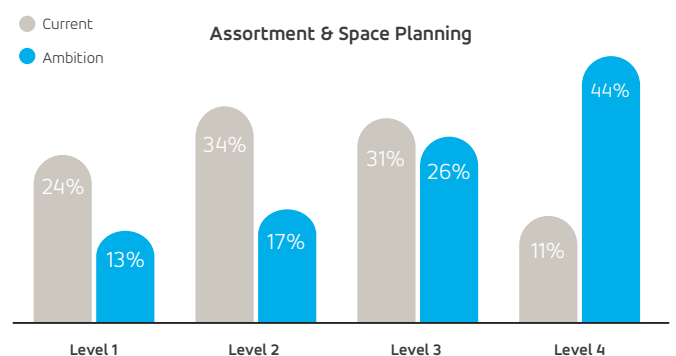
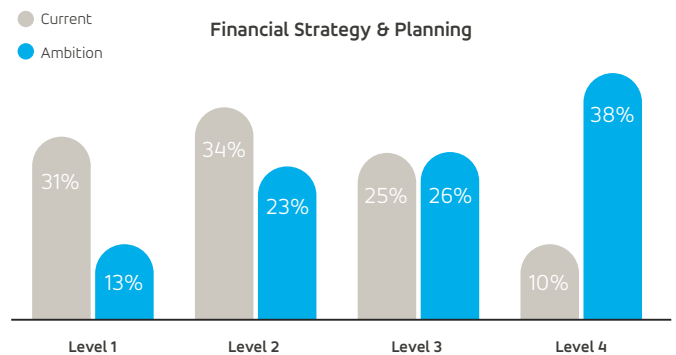
# Survey Highlights

## Financial and Assortment Planning

Most retailers have a monthly cadence for financial and strategic planning. Their desire is to ensure that planning becomes cross functional and integrated across the business. Today, more than half of the respondents plan their assortment on a phase-based timetable. There is a strong aspiration to move towards continual, machine-learning driven optimisations to encompass the dynamic nature of supply and demand.

## Pricing

Functionally, most retailers manage pricing through a promotional calendar with only 13% continually optimizing prices. Commercially, 38% orient promotional pricing to increase sales while 33% aim to increase margin. Only 11% are able to manage across multiple factors such as margin and inventory clearance. Today, there is little investment in AI and ML but over 42% are aiming to incorporate this capability.



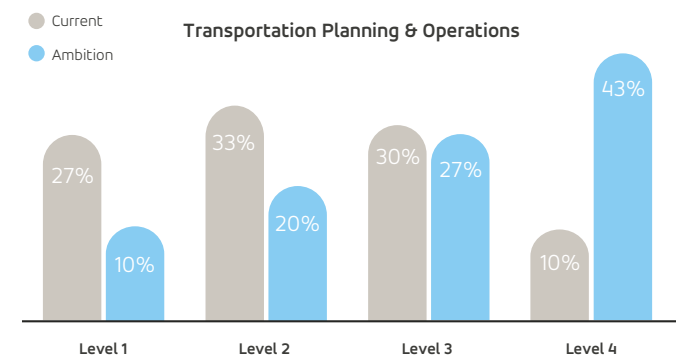
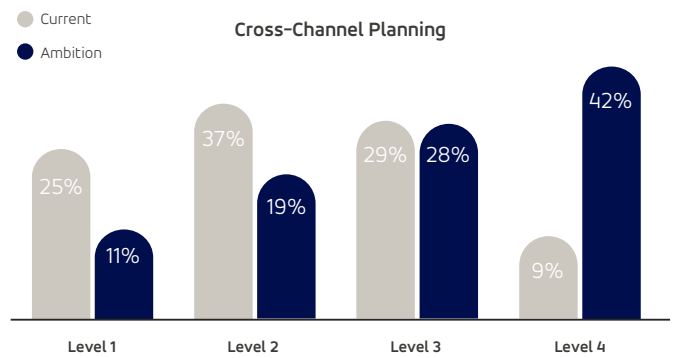
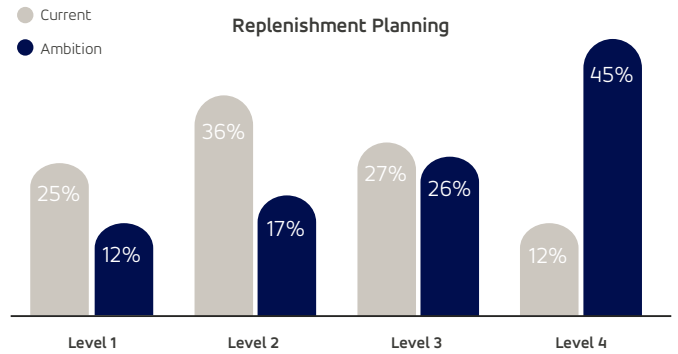
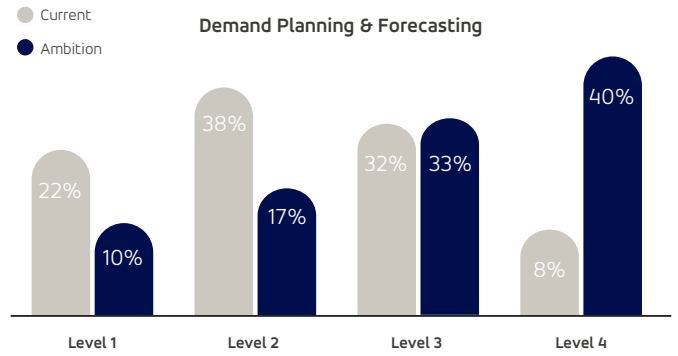
## Demand and Replenishment

The report shows retailers are not able to react to changes in demand in real-time, with only 8% refreshing demand planning processes on a real-time basis. More than one fifth (22%) of retailers currently use spreadsheets for this process, but almost three quarters (74%) want to switch to prescriptive or autonomous technology incorporating machine learning in the next five years.

Nearly half (49%) of respondents have basic demand processes with only 11% able to accurately sense and shape demand. The approach extends into replenishment, so perhaps in recognition of these issues, some 44% are looking to develop a digital twin to manage inventory with optimizations based on demand, cost and business strategy.

### Cross Channel Inventory and Planning

Channels are planned separately by the majority of retailers, with 24% maintaining discrete inventories. Again, it is seen as a key area for investment and optimization.



## Warehousing and Transportation

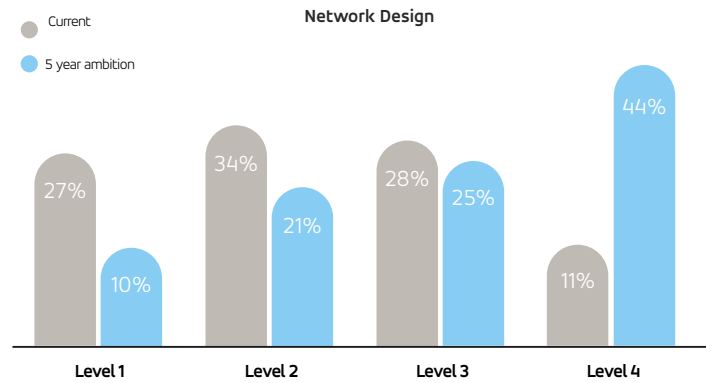
Only 10% of respondents operate fully automated warehouses with 40% noting an aspiration to do so over the next five years. Significant labor issues during the pandemic are likely to have highlighted this issue.

There is recognition that transport planning is currently too manual and simplistic with cost savings and efficiency improvements to be made. Overall there is a lack of integration between logistics and planning.

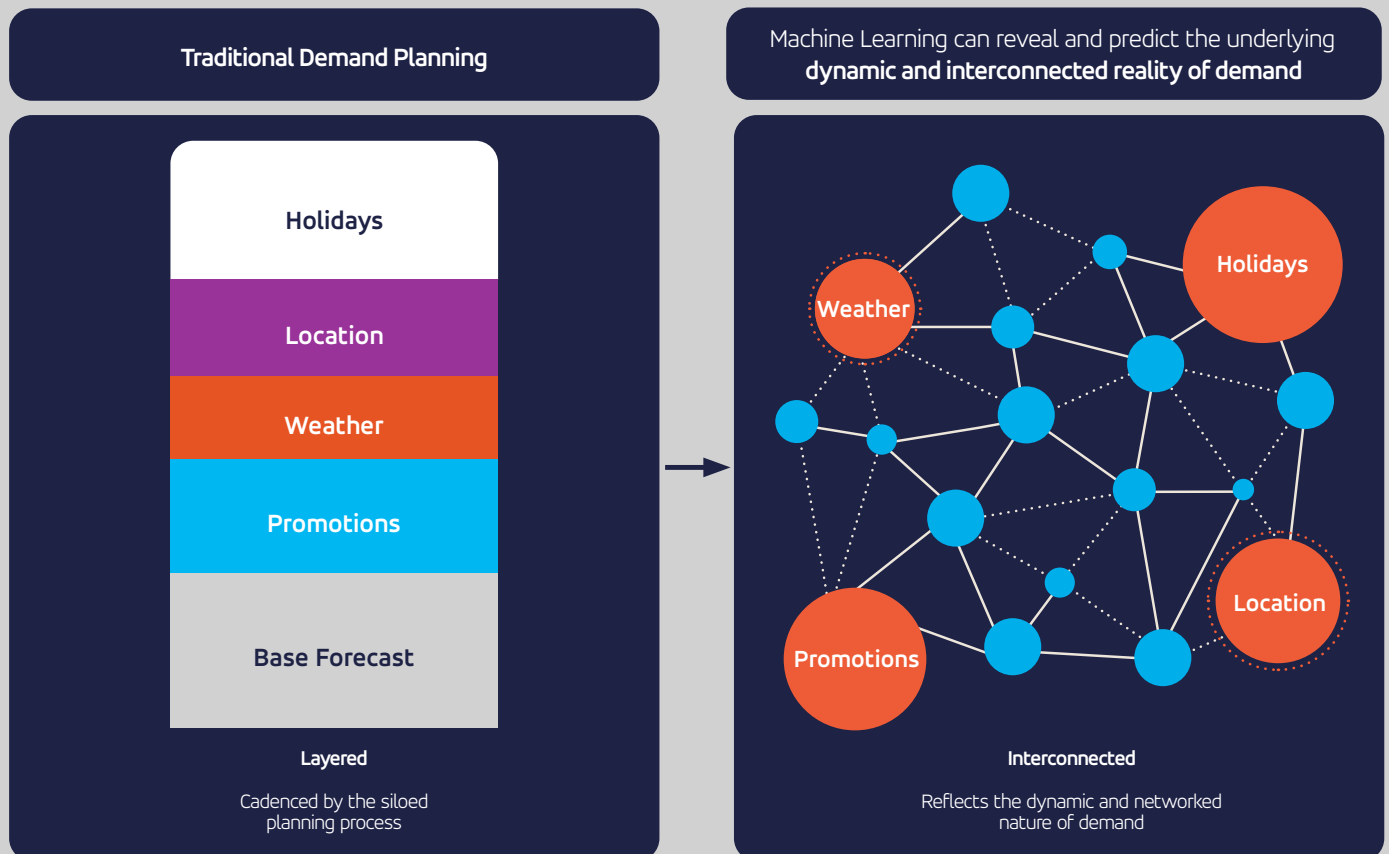


## Network Design

Network Design was a dimension where the respondents were looking for a level 3 or 4 outcome to create agile end-to-end business optimization. The results demonstrate that retailers are aspirational for structural change rather than continuing to tweak dated models more appropriate to simpler times.



## The Demand Planning Paradigm Shift



## The AI Automation Opportunity

Incumbent processes have often evolved to fit the available technology, departmental or functional needs and required reporting cadence. These are level 1 and 2 processes. The true nature of demand, however, is determined in real time by an interrelated set of factors. When capitalising on the digital opportunity, it is important to remember that Machine Learning can

recognise digital signatures in big data to enable a paradigm shift in demand sensing, prediction and planning. Cloud models enable automation and on-demand scaling to help reveal demand with greater precision to maximise profit and reduce waste.

