The retail supply chain operating environment is changing rapidly. New technology, competitors and customer expectations are driving short innovation cycles, which lead to an increasing number of services being offered and a more complex supply chain.

Yet the agility we demand from our supply chain also exposes hidden inefficiencies in the business processes that underpin the supply chain operation.

Behind the scenes the planning of supply chain operations relies on ‘islands of automation’ that sit within functional silos. Significant levels of manual intervention link these islands and when risks are identified they must be manually mitigated.

For example, updates on when stock will arrive at a port prompts manual changes to plans throughout the supply chain, including suppliers and logistics providers. The heavy dependency on spreadsheets and macros to link these ‘islands of automation’ and manage the frequent manual interventions introduces latency and means mistakes and omissions are created, damaging trust.

Much-needed improvements are frequently delayed because of limited cross-functional visibility, the rapid rate of change in business and technology, and concern about making what are perceived to be major IT changes. The use of robotics resolves these concerns.

In the example below, the client wanted to implement robotized processes as part of its operations. They had used a large number of Excel files to align demand and supply plans and identify risks that could affect these plans. All risks were discussed and changes to plans then manually actioned.
The creation, integration and review of plans was almost entirely manual and involved 120 people over an eight-day period each month. Over 80 members of the workforce had to change their source data each month when risks were identified. The time-consuming elements involved reviewing the plans for any risks and making changes to source systems when risks were identified. The high manual effort also meant changes to plans could only be reviewed monthly, leading to lost sales and high product waste as stock wasn’t located in the right place at the right time.

The process was reviewed and redesigned with the business users. Each blue box now represents the new robotized step and the split grey/blue box with the red icon indicates where logic determines either automated resolution of risks or manual escalation. Complex risks that are escalated are then manually reviewed and approved in a robust, transparent process.

Only a minority of risks and subsequent changes involve complex decision-making. For the rest, robotics and transparent, flexible logic provide an opportunity to deliver something game-changing.

What you see is that Redwood robots create the required plans as well as identify and implement simple changes that can resolve minor risks. For more complex risks, the robot sends an email to plan owners with specific information to review, letting them record any updates and make changes to source systems directly from the e-mail.

Commercial and supply chain plan owners have a central point to review all updates, risks and plans, which can then be approved.

This significantly reduces 85% of manual risk-mitigation changes to source systems and reduces the need to use Excel to manage plans. All in all, this means a major improvement in control and audit, and fewer instances of excessive manual interaction.

In the new system, the robots collect the data, perform the calculations, make simple changes directly within the respective ERP, highlight more complex risks for escalation, seek approvals and update the task list once the changes have been posted for the next period.

Over 120 people stopped making minor changes to plans and instead could focus on value-adding activities involving sourcing, product development and operational efficiency.

Seamlessly automating current manual activities with the existing ‘islands of automation’ increased efficiency, compliance and speed, all at lower cost. Using robotics to tackle repetitive, labor-intensive, logic-based processes releases teams to focus on the strategic and decision-making support that they have been recruited for, and makes them feel more motivated and engaged.

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