IIOT and ERP in the Retail Supply Chain

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The last couple of months have seen a worldwide surge of e-commerce and online retail. This growth puts extra pressure on the retail supply chain and companies are looking at automation of their operations to create better visibility, predictability, flexibility and cost optimisation.

Real-time connection through IoT devices is becoming an integral part of tracking products in transit. This network of sensors that provide continuous updates on location of products in the supply chain can assist in fast operational decisions and automated actions. Tagged goods, smart containers, vehicles, pallets, and transport systems all assist in order to create a fully networked supply stream that offers supply chain managers, shippers, freight forwarders, and your customers the correct information.

With Odoo, Safecoms provides a suite of Business applications that is integrated with IIOT to handle this complex process in an end to end way.

The specifics of a Retail Supply Chain
Now that eCommerce and online retail have become mainstream for the majority of products , retailers need to build intelligent, efficient, demand-driven supply chains. Not only do they need to meet product demand but also customer expectations like express delivery, delivery in a specific time window, tracking information, and easy returns. The only way to do this is via a high level of connectivity and visibility.

A centrally controlled system with a unified database that enables stakeholders to access product data at any inventory level in real-time supports this. The system must also have the ability to make and execute decisions in real-time. At the same time, processes like restocking, managing reverse logistics, and the handling of out of stock products need to be implemented without incurring extra costs. You can only do this by automating the retail supply chain, using an integrated ERP software like Odoo together with IoT devices and sensors.

By keeping track of location data in a central database, managing and routing products along a supply chain can become seamless. Also, it saves retail businesses effort, time and quality problems. Earning them efficiency and customer loyalty.

Integrating IoT in the retail supply chain

Tracking

Goods can be tracked remotely at any level of the supply chain via sensors. Scanners along the transit route can identify RIFD tags, QR and bar codes. When connected to the ERP system this data can then be stored and maintained in the main database where it can be accessed on a hierarchical, role-based ruleset through secure authorisation channels.

Supply chains for perishable goods can also employ temperature sensors and humidity sensors to monitor the quality of products at each stage. This avoids quality problems and can reduce transportation costs. Also, as consumers also expect the ability to track their orders once it is shipped, real-time tracking with IoT has become popular with retailers.

Multi-channel Fulfilment

When a market becomes more competitive, the company that can deliver quality goods in the fastest time at a reasonable price gains customers. Establishing warehouses at key locations and shipping products through multiple channels is one way to assist in this. Managing them through a common ERP integrated with IoT is what makes express delivery of products and maintaining a solid grip on your supply chain possible.

Routing

Automating the retail supply chain comes with forecasting tools that analyse possible shipping routes to select the fastest and most cost-effective one. Thus, in combination with predictive analytics, IoT helps quick and safe delivery of freight.

"*Worldwide companies spend more than $1.5 trillion every year on trucking services today, and this number is expected to exceed $2.5 trillion in 2025. Real-time routing and other IoT-based operations improvements can lead to a 17 percent improvement in operating efficiency, potentially generating benefits of $253 billion to $460 billion in 2025.*"
Source: Mckinsey – The internet of things, mapping the value beyond the hype.

Customer loyalty

Getting positive feedback and retaining customers plays a significant role in the success of a retail supply chain in our socially connected world. In order to achieve that, enterprises need to optimise their supply chain with IoT and Machine Learning technologies. Not only will it address operational efficiency but it also ensures customer loyalty and ultimately, profitability.

The combination of IIOT and ERP has enabled a more intelligent, intuitive supply chain. With its capacity to provide greater visibility and real-time decision-making, it is an indispensable tool for retail supply chain management. In Safecoms we combine the expertise in both ERP and IIOT. Get in touch to see where we can assist.