How the Shoprite Group is redefining shopping in South Africa

By David Cohn, Chief Information Officer (CIO) at the Shoprite Group

The 'Retail Store of the Future' is no longer a distant concept. With the integration of cutting-edge technologies including artificial intelligence (AI), Radio-Frequency Identification (RFID), digital advancements and data science, it's already a reality.

To be at the forefront of this evolution, the synergy between business and technology is critical. Technology and business should not be viewed as separate entities, but a unified force with a free-flowing exchange of insights between the operational requirements and technological possibilities.

At the Shoprite Group, business has eagerly adopted technology to execute game-changing initiatives to set new standards for efficiency and convenience.

Shop and go

In March 2023, the Group became the first clothing retailer in South Africa to offer self-service checkout in its standalone UNIQ stores.

With smart tags and advanced RFID, customers can easily scan and pay for items. With real-time tracking of products, RFID enables retailers to maintain accurate stock levels, reduce overstocking or understocking, and enhance supply chain efficiency.

This technology eliminates the need for manual inventory checks, freeing up employees to focus on providing exceptional customer service.

Leveraging machine learning and AI

Machine learning and AI are increasingly playing more prominent roles in both the customer-facing and operational aspects of the retail sector. AI-driven analytics help retailers predict trends, optimise inventory and reduce waste.

In a South African supermarket first, the Group successfully deployed a powerful end-to-end supply chain software solution to ensure highly accurate orders. Using machine learning and AI, the system considers a number of external factors when ordering ultra-fresh products including historical data to predict buying patterns of certain products. The implementation was an immediate success, with substantially increased year-on-year sales growth and significantly reduced wastage.

Machine learning is also applied to floor plans, to improve store layouts and reduce queues to enhance the in-store customer experience.

Data and technology are also the driving forces behind supply chain intelligence, a key focus for the Group. It starts with meticulous planning – exemplified by stock supply – and encompasses considerations such as distribution destinations, lead time requirements, logistics coordination for promotional and non-promotional stock replenishment, as well as handling seasonal inventory needs like back-to-school orders.

Sixty60 success through technology

The Group's technological prowess was brought to the fore with the launch of Checkers Sixty60 in 2019, the first of its kind for a supermarket chain in South Africa.

To capitalise on its success and further improve delivery times, we have since developed a machine learning algorithm to define optimal delivery regions. The solution overlays a map with the spatial-temporal view of orders while using order data to determine the optimal delivery area for each store.

The algorithm also considers packaging and delivery time to determine the areas that can be best served by a driver within 60 minutes.

Bringing online into the real world

The trick is bringing the physical store and the digital experience together. The success of Sixty60 lies not only in the technology and user experience online, but also in the back-end integration with Checkers supermarkets.

We take this approach into every new project to deliver solutions that elevate the business and ultimately better serve our customers.

By harnessing the power of technology, the Shoprite Group is driving innovation to stay at the forefront of an ever-changing retail landscape and, most importantly, to enhance customer satisfaction.

The future is here, and it's reimagining the shopping experience.

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