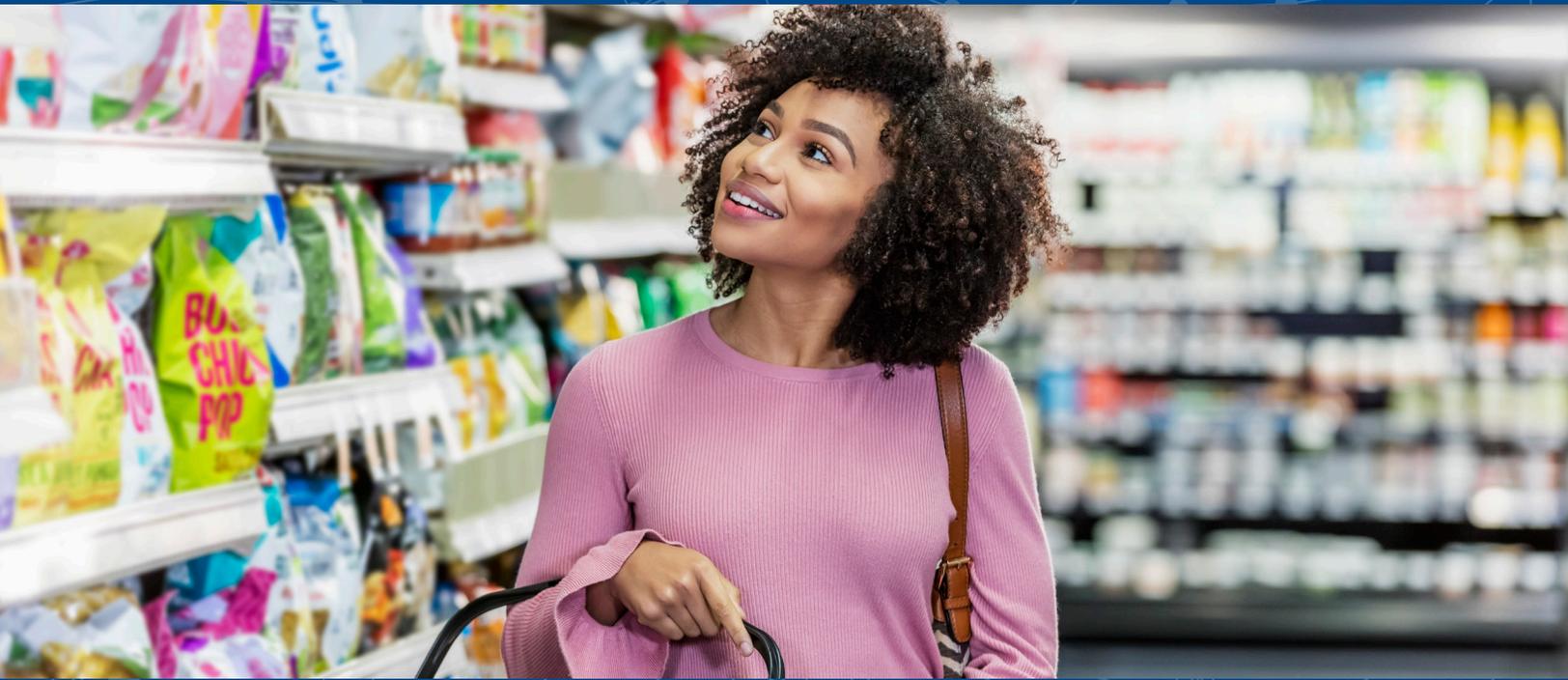


# Grocery DC Modernization Enables Growth



A leading supermarket chain in South Africa needed to centralize distribution, realign operational processes to increase capacity and support an expanded SKU count. As a \$4Billion+ (64 Billion ZAR) grocery retailer, they distribute 48,000+ SKUs of fresh, perishable and general merchandise to more than 600 stores and provide delivery service to online customers. The company has averaged more than 7% annual revenue growth and previously maintained six DCs in their distribution network.

The company pledges to provide its customers with the widest assortment of products in each category and be the market leader in the “fresh” merchandise category, which requires a higher degree of quality control across the supply chain.



### THE CHALLENGE

To achieve its goals the company needed to centralize distribution for reduced costs and accommodate a growing number of SKUs in its facilities. Growth in the business was driving a higher number of pick locations which needed to be optimized. To provide its customers with the freshest, best quality products the company sought to optimize its temperature-control environment. To increase productivity and reduce fulfillment costs, the company wanted to realign its processes for better flow in the facility.

The Grocery DC was chosen as the first facility to undergo a retrofit due to its high SKU growth and potential for productivity improvements. SKU counts in the Fresh DC had also increased by nearly 3X, and data analysis revealed that more than 90% of order profiles included both fast-moving and slow-moving SKUs. To accommodate the growing number of SKUs, the company considered both expansion of the physical footprint of the facility, which would be costly, and expansion of existing pallet racking which would impact productivity by increasing the travel distance between picks. Ultimately, the company partnered with Fortna to develop a solution that would accommodate SKU growth without negatively impacting productivity.

## THE SOLUTION

The retrofit design and implementation of the Grocery DC included the addition of:

- 4-level pick tunnel to accommodate more SKUs and increase picking density with a combination of full and half-pallet locations, as well as wire decking and a variety of pick media to allow for less-than-case picking. The pick module is slotted to pick by department, so that totes arrive store-ready for quick putaway on shelves.
- Spiral conveyor to move product between levels of the pick module
- Powered and gravity conveyor
- Double dock doors to maintain temperature control during transfer of product to trucks
- Extension and reconfiguration of existing rack
- Process changes to enable greater productivity

In addition to the design and implementation of both the Grocery DC and re-design of the Fresh DC, Fortna conducted an operations assessment, uncovering opportunities for process improvement. Engineered labor standards were developed for each process and Fortna helped train workers and supervisors in the new methods, as well modify the company's existing Labor Management Software so that the company could accurately track and measure staff productivity.

Fortna again partnered with the company for the design and retrofit of an additional two-facility campus to reduce costs, eliminate constraints and enable growth, but data analysis revealed that the site was not able to achieve the desired service levels. Analysis of those operations revealed that the campus, which serves approximately 450 stores and had the highest operating costs in the network, was not ideally located to support projected growth.

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**LABOR COST  
REDUCED BY  
15%**

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So Fortna was engaged to conduct a Network Strategy to determine the best location and sizing of the facilities required to support their long-term goals. The project took into consideration various options for handling slow-moving vs. core SKUs, split shipments between multiple DCs, eCommerce orders, and the geographic assignment of stores to be serviced by each facility.



An inland hub was identified as a strategic priority due to the high concentration of stores and customers in this region. The site maintains two DCs in the same campus, allowing the company to decrease order cycle time and deliver products to stores faster, reducing out-of-stocks and product damage from excessive handling or transport time.



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**THROUGHPUT  
CAPACITY  
INCREASED BY  
70%**

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Additionally, Fortna assisted this grocer with a fast-paced triage operations assessment to identify areas for improvement that would help them achieve a short-term goal to increase the number of cases processed through the facility by 13%, up to 1 million cases per week.

### **THE RESULTS**

Fortna's rigorous planning and management of multiple workstreams allowed the retrofit to be implemented without disruption to the on-going operations at the sites.

The Grocery DC has seen a 50% increase in SKU capacity while reducing by 35% the space required for staging product. Implementation of the pick tunnel enabled the company to accommodate SKU growth without incurring additional cost of expanding the physical size of the facility. Taking advantage of the vertical space of the existing footprint also meant that the company could increase productivity by reducing the amount of travel required between picks. Higher productivity led to a 15% reduction in labor cost and 70% increase in throughput capacity. After the labor standards and training were completed, the DC was able to process more cases per hour than any other facility in the network.

The changes made to the design and operations of the DCs now allow for less-than-case picks, which is key to another of the grocer's strategic initiatives – the future growth of smaller format stores with limited backroom space. Store-ready deliveries enable faster re-stocking of store shelves, resulting in improved service levels for customers. With a broader assortment of brands and the highest quality “fresh” products, the company is able to leverage their investment in its distribution operations for competitive advantage and future growth.

**For more information, contact The Distribution Experts at [info@fortna.com](mailto:info@fortna.com).**

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**“Centralisation has improved the operating efficiencies of our two major distribution centres. Higher efficiency and cost effectiveness of these operations continues to further improve on-shelf availability in our stores and contribute to earnings growth.”**

DC Manager

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## THE DISTRIBUTION EXPERTS™

Fortna partners with the world's leading brands to transform their distribution operations to keep pace with digital disruption and growth objectives. Known world-wide as the Distribution Experts, we design and deliver intelligent solutions, powered by FortnaWES™ software, to optimize fast, accurate and cost-effective order fulfillment. Our people, innovative approach and proprietary algorithms and tools, ensure optimal operations design and material and information flow. We deliver exceptional value every day to our clients with comprehensive services including network strategy, distribution center operations, material handling automation, supply chain systems and warehouse software design and implementation.

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