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What influences shoppers?

How refrigeration shapes the modern retail experience

First impressions matter

Walking into a retail store is more than just the beginning of a shopping trip, it is the start of an experience that immediately shapes how customers feel about the environment around them. From the moment shoppers enter a supermarket, they begin responding to a combination of visual, sensory and environmental cues that influence comfort, perception and purchasing behaviour, often without even realising it.

One of the most important yet overlooked contributors to this experience is refrigeration. Traditionally viewed simply as a functional necessity for preserving products, refrigeration has evolved into a critical element of modern retail design and customer engagement.

In today's competitive retail environment, refrigeration systems play a direct role in maintaining shopper comfort, supporting product presentation and reinforcing perceptions of freshness and quality. For many consumers, freshness is strongly connected to temperature and atmosphere. A well-maintained produce section with crisp vegetables, chilled beverages and properly displayed dairy products creates a sense of trust and confidence in the retailer. On the other hand, inconsistent



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cooling, poor airflow or uncomfortable store temperatures can negatively affect the shopping experience and influence how customers perceive both product quality and the store itself.

Environmental comfort has also become increasingly important within South African retail spaces, particularly during warmer seasons where shoppers naturally seek cool, comfortable environments. Refrigeration systems contribute not only to preserving products, but also to helping maintain

balanced temperatures and airflow throughout the store. Air movement technologies supplied by ebmpapst SA increasingly support this process by improving airflow efficiency and helping retailers maintain more stable environmental conditions across refrigerated spaces. Combined with lighting, store layout and product presentation, refrigeration quietly helps create an atmosphere that encourages customers to spend more time browsing and engaging with products.



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Research in environmental psychology and consumer behaviour, particularly within the fields of retail atmospherics (Kotler, 1973) and servicescape theory (Bitner, 1992), has consistently demonstrated that in-store sensory cues such as ambient temperature, lighting and overall environmental comfort significantly influence shopper perception and purchasing behaviour. Studies in sensory marketing further reinforce that these physical conditions shape emotional responses, which in turn affect dwell time, product evaluation and purchase intention.

Within this context, modern retailers are required to balance operational efficiency with evolving consumer expectations. Refrigeration systems therefore play a dual role: maintaining strict product integrity through temperature control while also contributing to the broader in-store environment that supports comfort and positive shopping experiences.

As retail continues to evolve, refrigeration is no longer operating solely in the background. It has become an integrated part of the shopper journey, shaping first impressions, influencing comfort and contributing to the overall perception of quality within the modern retail environment.

Freshness, presentation & consumer trust

In modern retail environments, refrigeration plays a significant role in shaping how consumers perceive freshness, quality and overall product value. Long before a customer reads a label or compares pricing, visual presentation often determines their first impression of a product. The appearance of fresh produce, meat, dairy and beverages can strongly influence purchasing decisions, making refrigeration one of the most important tools in maintaining both product integrity and consumer confidence.

Freshness remains one of the primary expectations shoppers have when entering a supermarket. Consumers naturally associate chilled environments with cleanliness, food safety and quality assurance. Brightly lit refrigerated displays, vibrant produce colours and properly maintained cold storage areas all contribute to a sense of trust between the retailer and the customer. When refrigeration systems operate effectively, products appear fresher, more appealing and better preserved, encouraging shoppers to engage more confidently with what they see on the shelf. Display visibility systems developed by Glacier Door Systems continue to support this relationship between product clarity, merchandising visibility and thermal efficiency within modern supermarket environments.



Linear service, self-serve and upright narrow lofty cases.

Display presentation has become increasingly important as retailers compete not only on price, but also on overall shopping experience. Refrigerated units are now designed to extend beyond basic temperature control, functioning instead as integrated merchandising systems that support both product preservation and visual appeal.

Refrigerated display cabinet systems manufactured by Colcab, together with retail display solutions associated with Arneg SA and V3 Retail Displays, are increasingly aligned with this shift toward more experience-driven merchandising environments, while cooling and evaporator technologies from Colcoil help maintain consistent refrigeration performance across high-demand retail applications.

Structural insulation systems supplied by Insulated Structures and panel infrastructure solutions from Panel World further contribute to temperature stability and energy efficiency across extended trading periods. In categories such as fresh foods and ready-to-eat meals, these combined refrigeration inputs directly influence perceived product value and impulse purchasing behaviour.



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Lighting within refrigeration systems also plays a powerful role in shopper perception. Poor lighting can make products appear dull or less appealing, while well-balanced LED lighting enhances colour, texture and overall product visibility. Fresh fruit appears more vibrant, beverages look colder and meats retain a fresher visual appearance when refrigeration and lighting operate in alignment. Stable airflow management supported by technologies from ebmpapst SA helps maintain consistent cooling conditions across display systems, while glass door solutions from Glacier Door Systems continue to improve display clarity and reduce unnecessary thermal loss within refrigerated environments.

Consumer trust is closely linked to consistency. Shoppers expect refrigerated products to remain properly chilled throughout the entire shopping experience, from shelf to checkout. Visible signs of poor refrigeration maintenance – such as condensation, inconsistent temperatures or damaged displays – can quickly undermine confidence in product quality and food safety. For this reason, retailers increasingly prioritise refrigeration monitoring and maintenance to ensure system reliability during trading hours.

The growing demand for convenience has also elevated the role of refrigeration presentation. As more consumers seek grab-and-go meals, fresh prepared foods and chilled beverages, refrigerated units have become key decision points within the store. Cold-room and integrated refrigeration systems from Staycold International increasingly



Refrigerated display lighting enhances merchandise in the best light. Optical designs and high CRI levels make products stand out, creating the ultimate shopping experience. www.regentlight.co.za/

support these fast-moving retail environments where temperature stability and accessibility remain critical to both product quality and customer convenience.

Ultimately, refrigeration has become far more than a functional requirement. It now operates as a visual and sensory driver of trust, influencing how shoppers interpret quality and how confidently they engage with products.

Comfort drives dwell time

Comfort has become an increasingly important factor in modern retail environments, influencing not only how shoppers feel within a store, but also how long they remain engaged with products and displays. While pricing, promotions and product variety continue to influence behaviour, the physical environment now plays an equally important role in shaping customer satisfaction and spend.

Temperature consistency is central to this experience. In busy supermarkets, particularly during warmer periods, excess heat or poor airflow can quickly reduce comfort levels and shorten browsing time. Refrigeration systems help regulate ambient conditions across departments, supporting a stable and comfortable environment throughout the store. Airflow technologies from ebmpapst increasingly contribute to maintaining

these balanced environmental conditions within high-traffic retail spaces.

Research in retail behaviour shows that shoppers spend more time in environments they perceive as pleasant and comfortable. This 'dwell time' effect is strongly linked to increased product discovery, higher impulse purchasing and improved engagement with promotional areas. Refrigeration contributes directly by maintaining a fresh, cool and balanced atmosphere that encourages customers to remain in-store longer.

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Airflow management also plays a key role. Poor ventilation or uneven cooling can create discomfort in high-traffic areas where customer movement and equipment generate additional heat. Modern refrigeration systems are increasingly engineered to improve air distribution, while insulated retail structures supplied by Insulated Structures assist in maintaining more stable thermal conditions across store layouts.

The psychological effect is often subtle but significant. Customers may not consciously notice refrigeration systems, yet they immediately register when conditions feel uncomfortable. Warm beverage units, humid produce sections or inconsistent aisle temperatures can negatively affect perception of store quality. A cool, stable environment reinforces trust, freshness and professionalism.

As physical retail competes with digital channels, comfort has become a differentiator. Refrigeration supports this by preserving product integrity while also shaping the environment that encourages repeat visits.

Smart refrigeration for smarter retail

As retail environments evolve, refrigeration systems are becoming more intelligent, data-driven and operationally integrated. Retailers are no longer relying on passive cooling alone but are investing in systems that actively support efficiency, performance and customer experience.

Energy consumption remains one of the most significant operational challenges in supermarkets, particularly in fresh food and frozen categories.



Rising electricity costs have increased pressure on retailers to optimise refrigeration performance without compromising product quality or shopper comfort.

Smart refrigeration systems address this through real-time monitoring of temperature, humidity and system performance. Predictive maintenance reduces equipment failure risk, while remote monitoring improves visibility across multiple store locations and enhances response times. Cooling technologies and evaporator systems from Colcoil continue to support more stable refrigeration performance within these increasingly connected retail environments.

Energy efficiency technologies such as adaptive cooling systems, LED lighting integration and electronically controlled compressors are increasingly standard. Efficient airflow management systems from ebmpapst SA, together with insulated infrastructure solutions from Insulated Structures, panel technologies from Panel World and advanced commercial refrigeration technologies associated with Daikin Refrigeration, are becoming increasingly important in reducing operational load and improving long-term refrigeration efficiency across retail environments.

Sustainability is also shaping design choices, with a shift towards low-GWP refrigerants and

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improved system efficiency across retail infrastructure. Refrigerated cabinet systems from Colcab and integrated refrigeration solutions from Staycold International increasingly reflect this broader movement toward energy-conscious retail refrigeration design.

Importantly, these systems enhance not only operational performance but also the shopper experience. More stable temperatures, improved airflow and consistent product presentation all contribute to a higher-quality retail environment.

Refrigeration beyond cooling

In today's retail environment, refrigeration has evolved beyond its traditional role of temperature control. It now forms part of the broader customer experience, influencing perceptions of freshness, cleanliness, comfort and quality from the moment shoppers enter a store.

Modern consumers expect retail environments to feel organised, comfortable and visually appealing. Refrigeration systems support these expectations by preserving product integrity while enhancing the visual presentation of chilled goods. Display visibility systems from Glacier, together with refrigerated merchandising systems from Colcab, Arneg SA and V3 Cold Cab, increasingly contribute to these modern retail expectations.

At the same time, retailers face increasing pressure around energy efficiency, sustainability and operational performance. Smarter refrigeration systems are therefore becoming essential to maintaining competitiveness in a changing retail



One of the most modern service stations in Europe has been in operation on the A7 in the town of Evendorf (Harburg district) since the end of September 2023. The NANZ Group has invested 20 million euros in its 'Break Autohof Hamburg-Nordheide'. The company UBERT was responsible here for the delivery of the entire catering equipment, consisting of a store concept, a modern burger restaurant, a self-service restaurant as well as scullery and all refrigeration.

landscape. Cooling technologies from Colcoil, insulated infrastructure supplied by Insulated Structures, panel solutions from Panel World, airflow systems supported by ebmpapst SA and advanced refrigeration technologies associated with Daikin Refrigeration all contribute to more efficient and stable refrigeration performance.

While online retail offers convenience, physical stores continue to provide sensory experiences that cannot be replicated digitally. Refrigeration plays a central role in sustaining this advantage

by supporting atmosphere, product quality and shopper engagement. Integrated refrigeration and cold-room systems from Staycold International continue to support these experience-driven retail environments where consistency and reliability remain essential.

As the industry continues to evolve, refrigeration will remain a core driver of both operational success and customer experience – shaping trust, comfort and long-term retail loyalty. **SR**