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How might 5G help deliver new opportunities in retail?
5G impacts in retail

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5G might be the catalyst for the **transformation of the economy and the connected society**, covering network needs and **contributing to the digitalization of vertical markets like Retail.**

Drivers and key figures of 5G in Retail

The retail industry is undergoing digital transformation

By 2025 the **Smart Retail Market size is expected to be worth up to US$58.23 billion**

Growing consumer desire for an enhanced digital shopping experience

~90% of consumers are looking for a digitally enhanced shopping journey, whether engaging at home, via mobile, or inside a physical location

5G combined with other emerging technologies [e.g., Augment Reality (AR)/ Virtual Reality (VR)] will transform the customer shopping experience and store operation

By 2035, the sales enabled by 5G are expected to add **up to US$1198 billion**

AR/VR technologies are expected to have a major role in changing the in-store experience

The market for **AR/VR technologies in retail alone is expected to reach US$1.6 billion by 2025**

5G and its potential role in Retail

Key use cases categories where 5G's advanced features will deliver further value to the end solutions

Key use case category	Illustrative use case				5G added value
In-store customer care and experience	**Immersive virtual support** Assist customers while shopping without needing to wait for a store assistant to become available (e.g., virtual dressing rooms)				AR/VR use cases usually demand stringent network requirements such as low latency, high reliability, and high bandwidth, which are 5G's intrinsic features
Pricing and promotion personalization	**Customized pricing and promotion** Share personalized notifications with customers when they are in-store or in the neighborhood by identifying their purchasing patterns				The usage of Artificial Intelligence (AI) /Machine Learning (ML) and Edge computing powered by 5G's high bandwidth and low latency connections can allow to deliver fast customized promotions to customers
Inventory management	**Out of stock shelf replenishment** Scan shelves for out of stock or low inventory positions and send automatic replenishment notifications to in-store associates or distribution centers to allocate additional inventory				Near real-time identification of misplaced, mislabeled, and mispriced products through MEC video analytics Multistore analysis using 5G network to cross-correlate reliable current inventory levels
Distribution centre and asset efficiency	**Warehouse asset and equipment monitoring** Monitor and transmit in real-time the location and the condition (e.g., temperature) of the goods in the warehouse				5G high capacity and reliability is required to support the deployment of multiple sensors and transmit high volumes of data
Workforce and store efficiency	**Cashier-less checkout** Provide a grab and go in-store shopping experience by enabling customers to collect the products they need and be automatically charged for them, eliminating the need of going through queues for checkouts				5G can provide the high bandwidth, high capacity and low latency required to track both customers and items as they are picked up and moved around the store

Expected improvements[1]

↑ 3-5%
Revenue

Main Drivers:
Enabled associates, improved pricing/promotions strategy, reduced stockouts, stronger demand planning

↓ 4-6%
Operating Margin

Main Drivers:
Reduction in store operation, supply chain, omnichannel operations, and merchandising costs

[1]Potential improvements were calculated based on benchmarks from a cost-reduction project at a large retailer; ranges for each improvement are based on low and high assumptions on the impact of 5G
Source: Deloitte

How can Deloitte help?

Deloitte Global translates business and industry needs into technical requirements delivering value added end-to-end 5G solutions that lead to **meaningful business outcomes.**

IDEATE AND PRIORITIZE — Select the areas to be improved with 5G use cases, ideating, identifying and prioritizing the top 5G use case opportunities

DEVELOP THE BUSINESS CASE — Formulate the operational benefits of the 5G use case(s) defined and associated business case value proposition

DESIGN TECH REQUIREMENTS — Define and design use case technical solution architecture and requirements, considering deployment strategies and application requirements

BUILD AND EVALUATE — Start with a point of contact (PoC) first to monitor and evaluate the 5G use case(s) performance and then proceed with global rollout

OPERATE AND MAINTAIN — Define overall governance, operating model and procedures to ensure the sustainability in business as usual (BAU)

Sources: Deloitte TMT Predictions 2021, Huawei, IDC, Gartner, The business research Company

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