

# Retail/Consumer Goods Analysis

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## Introduction

The retail and consumer goods industry is experiencing a major transformation as companies adapt to new technologies and changing consumer preferences. To keep pace with evolving demands, businesses are taking advantage of innovative tools like artificial intelligence, machine learning, and cloud computing upgrades. These advancements optimize supply chains and enhance customer experiences through personalized marketing and dynamic pricing, while also providing real-time insights into product life cycles that improve decision-making and efficiency. Additionally, consumers are focused on sustainability and ethical practices, which is pushing companies to adopt transparent and eco-friendly strategies that resonate with their values. The growth of e-commerce, along with shifts in consumer behavior and concerns about data privacy, presents both challenges and opportunities for retailers. This analysis will dive into these key trends and their implications for the retail and consumer goods industry, highlighting the necessity for businesses to evolve in a fast-changing landscape.

## Technological Advancements and Innovation

The retail and consumer goods industry transforms rapidly as companies adopt new technologies to meet evolving consumer demands and stay competitive. Four key trends drive this shift: AI and ML, generative AI, digital twin technology, and cloud/ERP upgrades. AI and ML optimize supply chains and enhance customer experiences with personalized marketing and dynamic pricing. Generative AI accelerates content creation, product development, and virtual shopping tools. Digital twins and predictive analytics deliver real-time insights into product lifecycles and supply chains, improving inventory management and decision-making. Cloud computing and ERP upgrades scale these technologies, offering real-time analytics and enhanced data security. Companies that integrate these innovations strategically boost operational agility, engage customers, and maintain a competitive edge, while those who hesitate risk falling behind in this fast-changing landscape.

Technology continues to reshape e-commerce and automation, transforming how businesses operate and engage with consumers. AI and ML optimize personalized customer experiences, enabling dynamic pricing, demand forecasting, and inventory optimization, which drive both customer satisfaction and operational efficiency. Generative AI accelerates content creation for marketing and product design, helping companies quickly respond to market trends and consumer preferences. Predictive analytics and digital twins streamline supply chains and manufacturing by providing real-time insights and control. Cloud computing scales e-commerce platforms, supporting large volumes of data and transactions to ensure seamless operations. Companies that use these technologies can work more efficiently, make better decisions, and connect with customers more effectively, helping them keep up in the fast-changing digital economy.

## **Sustainable and Ethical Consumer Practices**

The retail and consumer goods industry is transforming as companies adopt new technologies and prioritize sustainable and ethical practices. Consumer demand for transparency and eco-friendly products, regulatory pressures, and the need to mitigate risks such as reputational damage or non-compliance penalties are driving this change. Trends like AI, machine learning, digital twins, and cloud computing help companies optimize their operations, while sustainable practices focus on reducing environmental and social impacts. Ethical retail practices, including fair labor, transparency, and minimizing ecological footprints, play a crucial role in building trust with consumers and investors. Consumers increasingly choose brands that align with their values, preferring products labeled organic, fair trade, and cruelty-free. Companies that prioritize sustainability gain a competitive edge, while those that ignore it face financial losses, reputational damage, and regulatory penalties. Sustainable retail is now essential for business.

More consumers are willing to pay extra for eco-friendly products, and companies are investing in greener practices like sustainable materials, packaging, and transparent supply chains. By embracing sustainability, retailers not only comply with regulations but also build long-term resilience, increase efficiency, and appeal to environmentally-conscious consumers. Those who adopt these trends now will position themselves for success in the future.

## **Changes in Consumer Preferences**

Using big data, companies now can tailor shopping experiences towards consumers, aiming to fulfill the specific needs and wants of each individual. This same data is also being utilized for accurate targeted marketing campaigns, increasing profits. This can include personalized emails, unique rewards within loyalty programs, and more. Additionally, many online stores

now include a “Buy now, pay later” option which is a short-term interest free loan to encourage users to purchase larger amounts..

These unique tools are pushing e-commerce forward, but there are aspects of a physical store that would be incredibly difficult to replicate online. Trying out products before purchasing, friendly staff, and being able to take the product home instantly are just a few of these. While these are incredibly tangible benefits to a physical store, the data capabilities of online retail sites provide fierce competition looking forward.

## **Consumer Data Regulations**

In recent years, consumer data regulations have been a confusing area for legal departments. In the United States, there is no federal regulation of this area, leaving it up to individual companies to determine their approach. Lawmakers are looking to change that with the American Privacy Rights Act, a new federal law that seeks to provide consistent regulations for all industries. Every business must be compliant with this act, if ratified, except for small businesses which are generally defined as \$40 million or less in annual revenue. It also imposes stronger regulations onto larger businesses, which is generally defined as over \$250 million in annual revenue. This act is the second large attempt at federal data regulation, and the same problems are present with both. Many states, such as California, have already passed many state laws which regulate data. Lawmakers from these states argue that federal regulation could remove many of these state laws that could impose stricter rules on companies than the federal act would.

Since this legal process is taking on a lengthy discourse, many companies are trying to self-regulate to get ahead of the curve. Both Google and Apple are allowing consumers to opt-out of their virtual assistants, Siri and Google Home, collecting and storing audio. It's an often occurrence to now access a website and immediately be presented an option on how the consumers want their data to be stored. Furthermore, many companies also have support pages describing exactly what is done with data, as well as avenues to request all personal data collected.

## **E-Commerce VS Physical Locations**

E-commerce makes up about 20% of all retail purchases, with that number expected to grow to 22.6% by 2027. With the ease of shopping online versus having to drive to a physical location, E-commerce is becoming ever popular. This transition has unfortunately made physical retail locations struggle. While roughly 80% of all retail is still conducted at brick-and-mortar stores, malls have been closing at a substantial rate. According to Capital One, from 1986 to 2017, shopping malls closed at a rate of 581 per year while from 2017 to 2022, malls closed at a rate of 1,170 per year.

Many companies have seen the effect that online shopping has taken, and have thus made their own products available online in order to adjust. Adidas, for example, has a large number of physical locations in malls and standalone stores across the globe, but in 2023 their online sales accounted for half of their overall revenue. One of the main contributors to this success is the ease of returns in case of a product that does not satisfy the consumer. In case the shoes don't fit, having an easy way to return the product and order a different one is an extremely effective way of streamlining the online shopping experience.

## **Amazon's competition with smaller companies**

Amazon in recent years has been targeting smaller companies as new sellers on their online marketplace. Third-party sellers now account for a reported 60% of physical products sold on the website. By selling on Amazon, small businesses gain access to a global shipping network and a huge potential client base. Beyond that, the cost to start selling on Amazon is extremely affordable, offering plans which charge 0.99 per unit sold, or a flat 40 dollars per month. This lower fee allows smaller businesses to try to access the growing e-commerce space at an affordable price.

There are some drawbacks to this setup for small businesses. If they do not sell on Amazon they could be missing out on vital e-commerce sales. Also, since Amazon has low barriers to entry to start selling, competition is fierce. Due to the website being organized by product, it is extremely easy for consumers to find alternatives for your product. Beyond these, once a sale is transacted, Amazon will either charge a referral fee and take a percentage of the sale, or charge a fulfillment fee depending on the size of the product.

## **Supply Chain Issues**

Recently, there has been a labor shortage across supply chains. Workers have recently chosen to either retire early or switch careers, creating a huge gap between supply and demand that has still not been filled. In turn, this has caused prices along the supply chain to increase. Beyond that, some of the main issues along the supply chain have been technology integration among different points. The overall supply chain at the moment is healthy, despite these issues. In order to address these challenges, companies are now diversifying their sources, manufacturing, and distribution in order to resist any shocks to the supply chain.

## **Conclusion**

The modern era of commerce has been transformed with digital innovations like artificial intelligence and the convenience of online shopping. Amazon has been a huge factor in developing this forefront,

both capitalizing and growing small businesses on their massive platform. Technology has also been able to support the back-end of the supply chain to keep up, despite the issues currently faced. While data regulations are still being put into place, the realm of Retail and Consumer Goods is extremely healthy, as physical stores are using online sales to bolster their businesses.

### Takeaways:

- If selling online, companies should consider implementing a lenient return policy to boost sales
- Companies should monitor data regulation laws periodically, as it could apply to them in the near future
- Amazon has a potential avenue for increasing sales through their programs
- Big Data can implement a unique experience for online shoppers and potentially increase satisfaction
- Recent supply chain developments include diversifying suppliers in order to prevent shocks to the system
- There is an increasing demand for online shopping compared to physical locations
- New technologies such as Artificial Intelligence are transforming company workflows
- There is an increasing demand to become eco-friendly

### References

[https://www.ey.com/en\\_us/insights/consumer-products/how-embracing-technology-trends-can-drive-leadership-in-the-next#:~:text=AI%2Dpowered%20systems%20and%20microcomputing,better%20promotions%20and%20increased%20sales.](https://www.ey.com/en_us/insights/consumer-products/how-embracing-technology-trends-can-drive-leadership-in-the-next#:~:text=AI%2Dpowered%20systems%20and%20microcomputing,better%20promotions%20and%20increased%20sales.)

<https://www.rsm.global/insights/ethical-retail-2024-key-drivers-supply-chain-challenges-and-regulations-businesses#:~:text=%E2%80%9CConcerns%20over%20labour%20practices%2C%20such,footprints%20and%20sustainable%20sourcing%20practices.%E2%80%9D>

<https://www.diversitech-global.com/post/guide-to-sustainable-retail-industry>

<https://www.osano.com/american-privacy-rights-act-apra>

<https://knowledge.wharton.upenn.edu/article/data-shared-sold-whats-done/>

<https://www.sellerscommerce.com/blog/ecommerce-statistics/#:~:text=20.1%25%20of%20retail%20purchases%20are,26.6%20million%20eCommerce%20stores%20globally.>

<https://capitaloneshopping.com/research/mall-closure->

[statistics/#:~:text=An%20average%20of%201%2C170%20shopping,rate%20of%20581%20per%20year.](#)

[https://retailfundi.com/adidas-achieves-equilibrium-with-a-50-50-balance-between-in-store-and-e-commerce-sales-9b9529e125e2](#)

[https://news.northeastern.edu/2023/01/27/amazon-small-business-transformation/](#)

[https://sell.amazon.com/pricing#other-costs](#)

[https://www.datafeedwatch.com/blog/pros-cons-selling-on-amazon](#)

[https://consumergoods.com/supply-chain-crisis-over#:~:text=After%20several%20years%20of%20pandemic,have%20been%20laid%20to%20rest.](#)

[https://www.scmr.com/article/preparing\\_for\\_2024\\_supply\\_chain\\_challenges\\_and\\_priorities](#)

[https://www.retaildive.com/spons/top-3-supply-chain-challenges-for-retailers-in-2024/695866/](#)

[https://neklo.com/blog/ecommerce-big-data#:~:text=Big%20Data%20helps%20online%20retailers,experience%2C%20leading%20to%20higher%20profit.](#)

[https://blog.deckcommerce.com/dtc-ecommerce-trends](#)

[https://www.doofinder.com/en/blog/physical-store-vs-online-shop-advantages-and-disadvantages#:~:text=Unlike%20online%20shopping%2C%20which%20often,it%20in%20their%20possession%20immediately.](#)