

## | 1. AI In Retail

AI can completely overhaul the traditional retail experience and propel it to the next level with personalization, automation, and innovation. Research showed that customers were 110% more driven to shop and 40% more likely to spend more than their budget when the shopping experience is highly personalized. And for the personalized, real-time, and automated retail experience (which the millennials and smart shoppers love), retailers need to integrate AI techniques to survive.

Let's start with some stats on the magnitude of integration of AI in the retail industry.



Figure: Percentage of retailers adopting AI in the past three years  
Source: [Capgemini: Building the Retail Superstar](#)

The figure shown above was published in the report, [Capgemini: Building the Retail Superstar](#). It shows the number of retailers adopting AI at any stage of maturity - pilot, multi-site deployment and full scale deployment in the past three years. You can see that the number is increasing. As of 2018, 28% of retailers utilize AI in some form, a 600% increase compared to 2016. It's 2021 now, so the numbers might have gone much higher. Most retailers have adopted AI for improving customer experience and automating internal operations.

Check this [Infographic: The Emergence of AI in Retail](#)



Figure: Adoption of AI in different sub-sectors of Retail

Source: [Capgemini: Building the Retail Superstar](#)

The above figure shows the adoption of AI at any stage of maturity - pilot, multi-site deployment and full scale deployment in the respective sub-sectors of the retail industry. Multi-category retailers like Walmart and Amazon that sell about anything are the forerunners in the race to adopt AI. The multi-category retailers are followed by the fast-changing fashion apparel and footwear industry, food and grocery, and so on. We will see the use cases for these industries in the later sections.

## 2. Data ecosystem

## Adoption of AI in retail by 2021

Adoption of AI by 2021....



Source: *IBM: The coming AI revolution in retail and consumer products*

The image above shows the percentage of retailers adopting AI in their business by 2021 along with the functions they plan to use AI for. 85% of retailers will use AI for supply chain planning and demand forecasting, 79% of them will use AI for customer intelligence, 75% of them will use AI for marketing and campaign management, and 73% will use AI for store operations and pricing and promotions.

## Investment on AI in Retail Industry

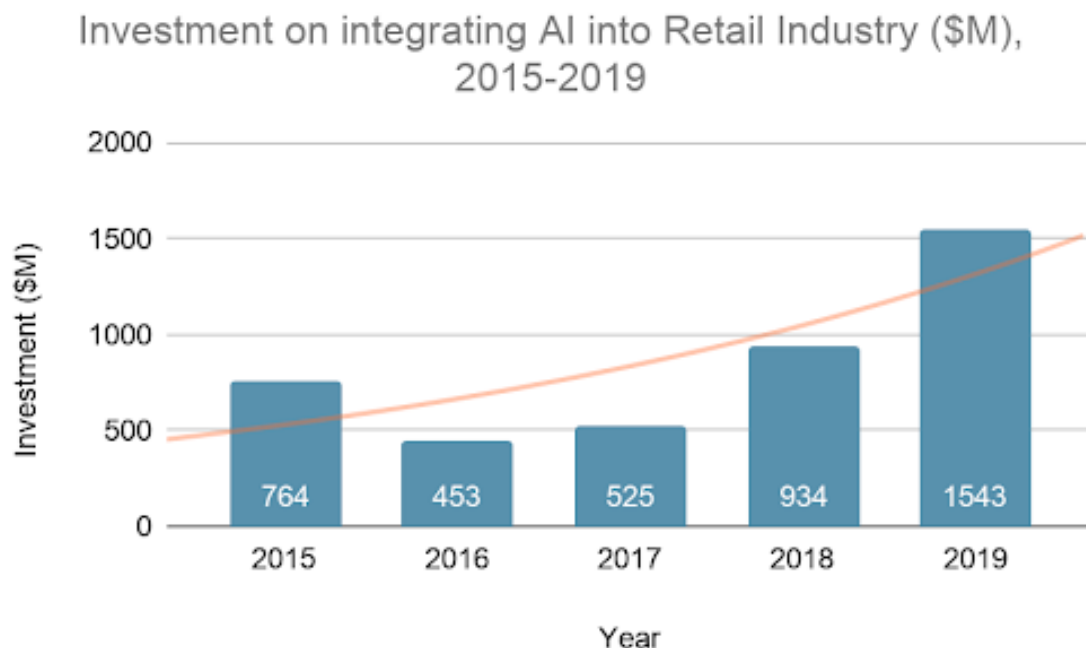


Figure: Investment on integrating AI in Retail Industry from 2015 to 2019

Well, it's evident that retailers have a very high expectation from AI, which shows in many of the investments that have been going on. The amount of money invested in integrating AI in retail is gradually increasing over the years. Just in 2019, about \$1.6 billion was invested in AI initiatives and AI startups.