Defintion: By “retail” we mean the market that includes all those activities that involve the sale of goods or services by a company directly to the consumer that are usually purchased for personal or family use.

(doxee, 2020)

Big data describes a large volume of data that is used to reveal patterns, trends, and associations, especially relating to human behavior and interactions. Historically, it has been defined by three key factors: volume, velocity, and variety. For the retail industry, big data means a greater understanding of consumer shopping habits and how to attract new customers. Big data analytics in retail enables companies to create customer recommendations based on their purchase history, resulting in personalized shopping experiences and improved customer service. These super-sized data sets also help with forecasting trends and making strategic decisions based on market analysis.

One of the most common ways that big data is collected in the retail industry is through loyalty programs. These days, it’s also collected through credit card transactions, IP addresses, user log-ins and more. As more information is collected, retail businesses can use market insights to analyze the ebb and flow of shopping and spending by consumers historically to predict future spending and make personalized recommendations.

The bad news is that while many merchants are collecting data, most aren’t using it effectively. According to the study, only 16% consider themselves experts when it comes to data harnessing, while 24% and 60%, respectively, describe themselves as “newbies” and “getting there.” (Nicasio, 2021)

**Demand**: The Global Big Data Analytics in Retail Market size is expected to reach $14.1 billion by 2026, rising at a market growth of 23.4% CAGR during the forecast period. Big data describes a huge volume of data that is utilized to uncover trends, patterns, and associations, particularly related to the behavior and interactions of humans. For the retail business, big data is utilized for getting a prominent understanding of customer shopping propensities and how to draw in new customers. Organizations are being enabled and empowered by big data analytics to create customer proposals dependent on their buying history, resulting in customized shopping experiences. These big data analytics solutions additionally help in anticipating patterns and taking strategic decisions that are based on an analysis of the market.

**Job:**

(Analysis, 2019)

Retailers can turn insights from big data into profitable margins by developing insight-driven plans, investing in big data talent, and investing in existing employees. This has created a need for a new brand of analyst – the data scientist. His or her job is to burrow into the mountain of big data (internal or external, structured or unstructured) to find gold. In other words, the actions retailers can take to reduce costs and increase sales. (JOSHI, 2016)

The retailing industry has now adopted data-driven customization technology. The data available in social-network conversations, online purchases, and smart phone interactions aids big data in creating suggestions. According to a study by the Mckinsey Global Institute, retailers that embrace big data analytics yield a 60% boost in margins and a 1% improvement in labour productivity.

**CONCLUSION**:

Ecommerce is a booming sector. Sales and revenue in the market have grown year-on-year for over a decade. Even amid the uncertainty of COVID-19, online shopping is a robust industry. That makes it an excellent one in which to launch a career.

These innovative uses of Data Science really improve the customer experience and have the potential to boost retail sales. The benefits are many: better risk management, improved performance and the ability to discover information that could have been hidden. Most retailers are already using Data Science solutions to increase customer loyalty, enhance brand awareness, and improve developer ratings. As technology continues to advance, one thing is certain: Data Science still has a lot to offer in the world of retail!

(Sokanu, 2017) (O'Brien, 2020) (Training, 2021)