

| 3. **AI Adoption in Retail: Challenges**

The rate of adoption of AI in the retail industry is ever-growing and its applications are getting more innovative than ever. The pandemic has further opened many doors of opportunities for AI adoption in the retail industry. The sudden online shift and virtual buying and selling has allowed AI applications to scale to an even larger audience base.

But with opportunities, comes the challenges. Let's discuss some of the challenges involved in integrating AI in retail and ways to overcome them.

Data

Data is the foundation for AI and machine learning. So if someone is planning to implement AI for their business, they will need a considerably large amount of data. However in many companies, data remains in silos within a particular system. For example, the sales data may remain within the sales management system only and the customer details may remain within the physical files of the customer service department. So one needs to make sure that all this data is available when required. Even if the data is available, it may not be of a good quality. There may be redundancy and inconsistency in the data making it very difficult to analyze even for AI and machine learning. For this reason, one needs to make sure that they have a unified framework to gather all this data while maintaining its quality so that it could be used for various different machine learning techniques.

Outdated Infrastructures

AI requires modern infrastructures like a separate data warehouse, server, powerful GPUs and so on to collect quality data, train an AI model and deploy it. However many retail companies lack these infrastructures as it's too technologically advanced and cost quite a fortune. Many small retailers might still be using paper-based file recording as a means to collect and store data. So, to integrate AI in retail, outdated traditional infrastructures should be upgraded to modern more sophisticated ones.

Lack of AI talent

All that quality data and futuristic infrastructures are useless if not for the quality AI talent to use them to create AI solutions. However, finding quality AI talents is very difficult as they are in very high demand. So it's necessary to find, acquire and retain quality AI talents in order to develop, maintain and improve the AI solutions.

No All Encompassing AI Strategy

Different AI systems require a different range of manpower, resources, investment, and expertise. There is no single strategy to include the implementation of all the AI systems. So a company willing to integrate AI in their business must be ready to develop a flexible strategy trying to include most of the important AI applications currently trending in the world of retail.

AI has completely changed the retail industry. It has many applications in improving customer experience, demand forecasting, inventory management, store management and extracting insights. The rate of adoption of AI in the retail industry is very high and there are a lot of new opportunities coming forth post-pandemic but there are some challenges as well.

References

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