

Literature survey

Title & Author(s)	Year	Technique	Findings
Big Data Analytics and Deep Learning Based Sentiment Analysis System for Sales Prediction - Khatiwada, Aamod and Kadariya, Pradeep and Agrahari, Sandip and Dhakal, Rabin.	2019	Big data analytics (BDA) applications in e-commerce.	Structured data focuses on demographic data including name, age, gender, date of birth, address, and preferences, unstructured data includes clicks, likes, links, tweets, voices, etc. Merits: Used to understand complex datasets in a matter of time with beautiful visual representations Demerits: Lack of security since large data processed simultaneously.
COVID-19 pandemic in the new era of big data analytics: Methodological innovations and future research directions - Sheng, Jie and Amankwah-Amoah, Joseph and Khan, Zaheer and Wang, Xiaojun	2021	Descriptive and diagnostic analytics, Predictive analytics	The methodological innovations in studying big data analytics and. We provide insights on methods in descriptive/diagnostic, predictive and prescriptive analytics, and how they can be leveraged to study 'black swan' events such as the COVID-19-related global crisis. Merits: By comparing with machine learning models, we find that the proposed model is superior to others. Demerits: The experiment only considers the features of the product and does not consider external influences, such as the impact of regulations on sales. It uses only small dataset.
Sales Forecasting Based on CatBoost - Jingyi Ding, Ziqing Chen.	2020	CatBoost algorithm.	It proposed a sales forecasting system based on CatBoosting. The

			<p>algorithm is trained on the Walmart sales dataset, by far the largest dataset in this field. We performed effective feature engineering to boost prediction accuracy and speed.</p> <p>Merits: The search stops when no improvements over the current best solution have been found in 300 iterations.</p> <p>Demerits: Dataset is limited</p>
2020 2nd International Conference on Broadband Communications, Wireless Sensors and Powering (BCWSP)- Wisesa, Oryza and Adriansyah, Andi and Khalaf, Osamah Ibrahim.	2020	Gradient Boost Algorithm	<p>The results of this analysis are expected to generate reliable, accurate and effective forecasting data, a valuable resource for sales predictions. It shows good accuracy in forecasting.</p> <p>Merits: Better prediction.Profit function performance.</p> <p>Demerits: The revenue/loss factors of expected profit are is not used.</p>
Developing and Implementing Big Data Analytics in Marketing - Dina Darwish	2020	Big data analytics, R tool.	<p>Companies take informative business decisions in different fields, such as, healthcare, banking, manufacturing, media and entertainment, education and transportation and many others.</p> <p>Merits: The proposed method is based on similarity measurement without complex training so that forecast can be completed in a short time, and performs well in small-scale data</p> <p>Demerits: The experiment only considers the features of the product and does not consider</p>

			external influences, such as the impact of regulations on sales. It uses only small dataset.
Social media big data analytics for demand forecasting: development and case implementation of an innovative framework-Iftikhar, Rehan and Khan, Mohammad Saud	2020	Definitional aspects of big data analytics (BDA) in e-commerce	<p>Social media big data offers insights that can be used to make predictions of products' future demand and add value to the supply chain performance.</p> <p>Merits: Captured linearity and nonlinearity better than ARIMA and ARNN gave the best result of 565 RMSE.</p> <p>Demerits: Hybrid Technique can fail if nonlinear model fails to capture residue patterns</p>