Literature Review: Exploring the Implementation of Big Data Analysis in Business: Evidence from Stock Price Prediction, Supermarket Goods Sales Prediction, and Credit Default

The development of internet technology continues to increase rapidly and has led to the creation of huge amounts of big data (BD) from several sources, such as the web, cloud, and media. Muller et al. (2016) stated that the proliferation of social media, mobile devices, and sensor networks, and the reducing storage costs have led to an ever-increasing digital record of computer-mediated actions. This literature review (LR) focuses on the execution of BD analysis in business based on evidence from stock prediction, supermarket goods sales prediction, and credit default.

Ajah and Nweke (2019) reviewed and discussed recent trends, opportunities, and pitfalls of BD technology. Multiple sources were integrated into this review. The outcomes showed that efficient management of huge sets of data using the methods and instruments of big data can produce actionable information that create business values. Alsghaier et al. (2017) used a case study approach to examine the significance of BD analysis in business. The outcomes indicated that the integration of BD analytics in industrialization processes can foster agility and industrialization attainment. Gupta and George (2016) used quantitative methodology to test the connection between BD analytic capability and the firm's attainment. The outcomes showed a significant positive impact of BD analytics capability on both market performance (b=0.86, p < 0.001) and operational performance (b=0.67, p < 0.001). The systematic review by Hilbert (2016) illustrated that the BD paradigm entails both opportunities and threats for development. Muller et al. (2016) reported that BD analytics as a novel can be instrumental when utilized as a data analysis methodology.

Ram et al. (2016) carried out a qualitative investigation to examine the implications of BD analytics on business intelligence. A total of 35 subjects were engaged in this investigation. The investigators used semi-structured interviews as the data collection techniques. The NVivo 10 software was leveraged as the data analysis instrument. The results showed that BD analytics is used in business intelligence to improve resolution-making abilities and enhanced ability to comprehend customers' needs. Efficient integration of BD can help firms manage their data properly.

Nguyen and Liaw (2022) conducted a systematic review to provide a summary of obstacles and solutions for BD adoption. A total of 71 articles obtained from different databases, including Science Direct and Google Scholar were integrated in this review. Data barriers emerged as the biggest problem for the firms. Particularly, complexity, security, and privacy are some of the greatest concerns for firms. Mintarya et al. (2022) carried out a systematic LR of 30 studies focusing on machine learning techniques in stock market projection. The outcomes showed that neural networks are the broadly utilized framework for stock market projection, though it does not imply that other models are inefficient.