

# Annotated Bibliography

Andre Ebu

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## References

- [1] Muhammad Balbaa, Olim Astanakulov, Nilufar Ismailova, and Nilufar Batirova. Real-time analytics in financial market forecasting: A big data approach. 05 2024.

The paper introduces a Real-time Big Data Financial Forecasting Model that combines real-time analytics with big data techniques for market predictions. Methods involve streaming data processing, machine learning algorithms like random forests and LSTM for time-series forecasting, and integration of diverse sources (stock quotes, news sentiment, economic indicators). It relates to my project (e.g., via APIs like Alpha Vantage), demonstrating how live feeds can dynamically adjust forecasts. This supports my project's adaptive scenarios for business metrics, providing a big data lens to scale my tool for financial or economic factors in SME planning.

- [2] Mingyi Ding and Qidong Zheng. *Research on Performance Assessment and Business-Finance Integration Based on Generative Adversarial Network Model*, page 38–42. Association for Computing Machinery, New York, NY, USA, 2025.

This paper addresses the challenge of evaluating business-finance integration (BFI) by proposing an advanced artificial intelligence method for performance appraisal. It critiques traditional methods (like KPIs) for being too simplistic, subjective, or data-hungry. As a solution, it introduces a sophisticated model using a Generative Adversarial Network (GAN), which it shows outperforms traditional models in accuracy for scoring and predicting performance. This paper establishes the limitations of conventional analytical approaches in a key area of business (performance appraisal and BFI). It serves as a strong example of why my study on Business Analytics needs to consider modern, complex methods. While my own research may not use a GAN, this source justifies the exploration of advanced analytics to solve intricate, multi-dimensional business problems effectively. It highlights the evolution of analytics applications.

- [3] Chee S. Lee, Peck Y. S. Cheang, and Massoud Moslehpour. Predictive analytics in business analytics: Decision tree. *Advances in Decision Sciences*, 26(1):1–29, 03 2022. Copyright - © 2022. This work is published under <http://journal.asia.edu.tw/ADS/>

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This paper is a systematic review that defines Business Analytics and focuses on one of its key branches: Predictive Analytics. It explains how Predictive Analytics uses statistics and machine learning to forecast future trends. The paper also highlights the Decision Tree as a particularly user-friendly and interpretable tool for applying predictive analytics in business. This review will be useful for the methods section of my study. It provides a clear, established definition of Predictive Analytics, which I can adopt. More importantly, I will reference its discussion of the Decision Tree methodology as a justification for potentially selecting it as a practical, interpretable analytical technique to use in my own research on business analytics applications.

- [4] Duc Cuong Nguyen and Catherine Welch. Generative artificial intelligence in qualitative data analysis: Analyzing—or just chatting? *Organizational Research Methods*, 29(1):3–39, 2026.

This study examines the application of generative AI (GenAI) tools, like large language models (LLMs), in qualitative data analysis, questioning whether they perform true analysis or merely generate synthetic responses. Through experiments with chatbots on sample datasets, the authors test tasks like automated coding, theme identification, and interpretive summaries, using methods such as prompt engineering and comparison to human-coded results. This can guide my project to emphasize hybrid human-AI workflows, ensuring “what-if” feature explanations are interpretable.

- [5] Yan Qi, Chenliang Li, Han Deng, Min Cai, Yunwei Qi, and Yuming Deng. A deep neural framework for sales forecasting in e-commerce. *Proceedings of the 28th ACM International Conference on Information and Knowledge Management*, 2019.

This paper proposes a machine learning framework specifically for forecasting sales of new products with short life cycles, where limited historical data poses significant challenges. The authors use deep neural networks (DNNs) to integrate time-series data with product attributes and market factors, using a multi-stage approach: data preprocessing, feature engineering, and model training with techniques like long short-term memory (LSTM) networks for sequential prediction. Key findings include improved forecast accuracy by 15-20%.

- [6] Chi-Feng Tai and Kai Wang. Data analytics insight-driven organizational agility. In *Proceedings of the 10th Multidisciplinary International Social Networks Conference*, MISNC '23, page 55–62, New York, NY, USA, 2023. Association for Computing Machinery.

This reading argues that using business analytics helps companies see future opportunities and threats better. It calls this “data-driven strategic foresight.” This sharper vision increases a company’s alertness and, in turn, makes it more

agile. I will use this article's main idea as a key part of my study's foundation. It provides a model (the three types of analytics leading to strategic foresight and agility) that I can reference to explain how business analytics creates real strategic value, moving beyond just better daily decisions.