The Journal of Information Technology and Digital Solutions (JITDS)

Volume 1, Number 3, 2025

Data Analytics and Big Data Technologies for Intelligent Decision Making

DEMO / THEME CONTENT

Authors

[Author Full Name 1] — [Institution Name], Pakistan — author1@example.com

[Author Full Name 2] — [Institution Name], Pakistan — author2@example.com

Abstract

The rapid growth of digital technologies has generated large volumes of structured and unstructured data. This paper examines the role of big data technologies and analytics in intelligent decision-making, including data collection, storage, processing, visualization, governance, scalability, privacy, and security.

Keywords

Big Data; Data Analytics; Data Science; Data Visualization; Decision Making

1. Introduction

Organizations generate large amounts of data through websites, mobile applications, sensors, enterprise systems, and online platforms. Big data technologies provide scalable methods for storing and processing such information.

2. Literature Review

Big data is commonly associated with volume, velocity, variety, veracity, and value. Chen et al. (2012) discuss the relationship between big data and business intelligence.

3. Methodology

A conceptual literature review was conducted to examine major big data technologies and analytics approaches.

4. Results and Discussion

Effective data-driven decision-making depends on the quality of the entire data lifecycle. Scalable infrastructure and visualization can improve analysis, while data governance supports accuracy and security.

5. Conclusion

Big data analytics can improve organizational decision-making when supported by reliable infrastructure and effective governance. Future studies should investigate AI-driven and real-time analytics.

References

1. Chen, H., Chiang, R. H. L., & Storey, V. C. (2012). Business intelligence and analytics. MIS Quarterly, 36(4), 1165–1188.

2. Kitchin, R. (2014). The Data Revolution. SAGE Publications.

3. Provost, F., & Fawcett, T. (2013). Data science and its relationship to big data. Big Data, 1(1), 51–59.

Sample manuscript created only to demonstrate the JITDS OJS theme and publishing workflow. It is not a genuine research publication.