A NOVEL MACHINE LEARNING MODEL FOR PREDICTIVE BUSINESS ANALYTICS WITH BIG DATA

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INTRODUCTION

- **What is Predictive Business Analytics ?**

  - ✓ Use of statistical algorithms, machine learning techniques, to analyze historical data and make predictions about future events or trends.

  - ✓ Predictive analytics is a powerful tool that can help businesses identify trends and patterns in large datasets, allowing them to make more informed decisions

  This presentation proposes a novel machine learning model for predictive business analytics with big data

LITERATURE OVERVIEW

- According to a study by (Zeng, 2020), machine learning algorithms have been widely used for predictive analytics. Still, their performance could be better due to the complexity of big data.
- In addition, (Li, 2019) study examined the potential of combining deep learning and big data for predictive analytics.
- A study by (Shen, 2020) evaluated the effectiveness of a novel machine-learning algorithm for predictive analytics. They proposed an algorithm that uses deep learning and ensemble learning methods to improve the accuracy of predictive analytics.

RISKS AND LIMITATIONS

- **Risks**：
  - Models are only as reliable as the data they are trained on
  - Model could be overfitted to the training data

- **Limitations** :
  - Complexity of the problem
  - Predictive accuracy of the model may be affected by biases in the data due to the lack of control over the data source

SOLUTIONS

- Ensuring the data is reliable
- Data should be checked for biases
- Should be tested on validation set
- Model must be monitored to respond and adjust to changing data.

METHODOLOGY AND EXPERIMENTS

- The proposed model combines multiple techniques, including advanced statistical algorithms and natural language processing, to analyze and predict business outcomes using big data.
- Experiments were conducted using real-world business data, We can make a comparison of the performance of the model with existing algorithms. This can be done by comparing the results on various benchmark datasets .
- Through this comparison, we could demonstrate the effectiveness of my model compared to other machine learning models.

RESULTS AND IMPLICATIONS

- The key findings of this research demonstrate that the novel machine learning model for predictive business analytics with big data has significant potential to transform the way businesses analyze and use big data.
- This model can continually refine its predictions and provide businesses with more accurate insights over time, which can improve decision-making processes.
- Potential applications include customer segmentation, product recommendations, and risk management. Future research could focus on improving the scalability of the model and exploring new applications.

THANK YOU