Project Proposal

Protective Gear Sales Prediction Model

November 4, 2023

Contents

1. Introduction

In the dynamic and competitive protective gear market of Poland, the ability to accurately forecast sales trends is a key strategic advantage. This project proposal outlines the creation of a machine learning model to predict future sales for a Polish trading company. Leveraging historical sales data and market intelligence, the model aims to empower the company with predictive insights for inventory and supply chain management, as well as strategic business planning.

2. Scope and Objectives

Objective: The goal is to develop a predictive analytics model that will allow the Polish trading company to forecast protective gear sales with high accuracy, aiding in efficient inventory management and strategic decision-making.

Scope:

- **Data Analysis:** Examination and analysis of historical sales data in correlation with market conditions.
- **Model Development:** Designing and training a machine learning model to predict sales volumes.
- **Deployment Strategy:** Formulating a deployment plan for integrating the model into the company's operational processes.

3. Primary Stakeholder

The primary stakeholder for this initiative is the Polish trading company. The company will provide the historical data required for model training.

4. Project Overview

4.1. What?

We will create a machine learning model to forecast sales trends of protective gear by analyzing historical data provided by the trading company.

4.2. Why?

The model is critical for managing inventory efficiently, minimizing waste, ensuring product availability, and enhancing the company's profitability and customer satisfaction.

4.3. Who?

The project involves a collaborative effort between the trading company (data provider and model beneficiary), the project development team (responsible for creating the model), and academic advisors (responsible for methodological oversight).

4.4. When?

The project timeline starts immediately upon approval, with the final deliverable due within the first 12 weeks of the semester.

4.5. How?

The development will utilize Python, machine learning algorithms, emphasizing iterative development and model validation.

5. Conclusion

This project proposal sets forth a vision for a sophisticated predictive model that aligns with the strategic needs of the Polish trading company. The model is poised to deliver valuable foresight into the protective gear market, enabling the primary stakeholder to maintain a competitive edge.