A close-up of a logo

Description automatically generatedMSBA Capstone Project Proposal

**Student’s Name:** Mona Ghorayeb **AUB ID:** 202152440

**Student’s Elected Concentration Area:** MSBA

**Project Title:** Optimizing Growth: Sales, Operations, and Market Expansion for GIFCO

**Company Name:** GIFCO

**Examining Committee:**

**1. First Supervisor: Signature**

**2. Second Supervisor *(optional)*: Signature**

**3. Company Contact Name and Email:**

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**Reviewed by MSBA Coordinator:**

**Brief Summary of Capstone Project**

The focus of this project is to develop strategies that will enhance the sales performance, operational efficiency, and market expansion strategies of GIFCO. Historical sales data and operational workflows will be analyzed to identify trends, bottlenecks, and areas of potential growth. Driven by data, the work will cover sales forecasting, operational process optimization, and market opportunity analysis to aid in strategic decision-making. The significance of this project lies in equipping GIFCO with actionable insights to optimize operations, maximize profitability, and tap into new-to-developed business opportunities in both existing and new markets. This initiative intends to position GIFCO for increased competitiveness aimed at realizing its sustained growth in the logistics industry.

**Company**

GIFCO is a leading logistics and freight forwarding company established in 1971. With a diverse range of services, including land, air, and sea freight, customs clearance, and warehousing, GIFCO plays a vital role in the global supply chain. Understanding its sales and operational dynamics offers critical insights into optimizing performance, enhancing efficiency, and identifying opportunities for strategic growth in the highly competitive logistics industry.

**Data**  
This project utilizes two datasets:

1. **Sales Data:** from 2019 till 2024
   * **Features:** shipping categories, transaction volumes, revenue metrics, customer regions, and delivery timelines.
   * **Size:** Approximately 10,000 observations.
2. **Shipment Details Data:** from 2023 till 2024
   * **Features:** freight type, client names, commodity categories, package counts, gross weights, shipment dates, and routes.
   * **Size:** Around 16,000 observations.

**Project Objective**

This project will take a business-focused approach to enhance GIFCO’s sales performance, operational efficiency, and market expansion strategies. By leveraging historical sales data, predictive models will be developed to forecast trends, capturing seasonality and demand variations to optimize inventory planning, resource allocation, and client responsiveness. Through data-driven insights, the analysis will identify inefficiencies within operational workflows, recommending targeted improvements to streamline logistics, reduce costs, and enhance delivery speed and reliability. Additionally, advanced predictive analytics will identify untapped markets and high-growth business segments, offering actionable strategies for entering new geographical areas and diversifying service offerings. And so, by aligning data-driven insights with strategic decision-making, this project aims to position GIFCO for sustained growth and increased competitiveness in the logistics industry.

**Project Methodology**

First, data collection and preparation will be the first step, where historical sales and operational data from GIFCO will be gathered. Then it will follow cleaning and preprocessing the data to address missing values, inconsistencies and standardization. After we have our data ready, Exploratory Data Analysis (EDA) will follow which will help in visualizing trends in sales and profitability, identifying key patterns, anomalies, and growth opportunities. After that, predictive models will be built using techniques such as KNN, ARIMA for time-series forecasting, Exponential Smoothing for trend and seasonality analysis and others to break down sales data into components for better understanding. Linear regression may also be employed for analyzing relationships between variables. These models will forecast sales trends, focusing on seasonality, demand variations, and growth potential. Finally, reporting will be conducted through visualizing using Tableau and Python, creating dashboards that link trends to actionable recommendations. The project will conclude with recommendations to optimize operations, forecast sales, and identify opportunities for market expansion and profitability, positioning GIFCO for sustained growth in the logistics industry.