Project Initialization and Planning Phase

Date	8th July 2024
Team ID	SWTID1720435231
Project Name	Walmart Sales Analysis For Retail Industry With Machine Learning
Maximum Marks	3 Marks

Problem Statement:

Walmart faces several challenges in optimizing sales performance and customer satisfaction. Retail managers struggle with accurate demand forecasting, leading to stockouts and overstock situations due to current methods not accounting for all influencing factors. Marketing managers find it difficult to effectively segment the customer base, as they lack comprehensive insights into customer behaviour and preferences, reducing the effectiveness of marketing campaigns. Additionally, pricing analysts face hurdles in optimizing pricing strategies, as current models fail to capture price elasticity and competitive pricing, affecting revenue and competitiveness. Addressing these issues through advanced machine learning techniques will enhance inventory management, targeted marketing, and pricing optimization, ultimately improving overall customer satisfaction and operational efficiency.

Customer Problem Statement Template

I am	I'm trying to	But	Because	Which makes me feel
A retail manager at Walmart	Accurately forecast demand for various products	I struggle with stockouts and overstock situations	The current forecasting methods do not account for all influencing factors such as holidays, weather conditions, and promotions	Frustrated and concerned about lost sales, increased inventory costs, and inefficient supply chain operations
A marketing manager at Walmart	Effectively segment our customer base to enhance marketing strategies	I find it challenging to identify distinct customer groups based on their purchase behavior and preferences	I lack comprehensive insights and data analysis capabilities to understand customer patterns and trends	Uncertain about the effectiveness of our marketing campaigns, leading to lower customer engagement and loyalty
A pricing analyst at Walmart	Optimize our pricing strategies to maximize revenue and competitiveness	It is difficult to understand the impact of different pricing strategies on sales performance and customer purchasing decisions	The current pricing models do not accurately capture price elasticity, competitive pricing, and consumer behavior	Frustrated and worried about not being able to achieve optimal pricing that balances profitability with customer satisfaction

Problem Statement (PS)	I am	I'm trying to	But	Because	Which makes me feel
PS-1	A retail manager at Walmart	Accurately forecast demand for various products	I struggle with stockouts and overstock situations	The current forecasting methods do not account for all influencing factors such as holidays, weather conditions, and promotions	Frustrated and concerned about lost sales, increased inventory costs, and inefficient supply chain operations
PS-2	A marketing manager at Walmart	Effectively segment our customer base to enhance marketing strategies	I find it challenging to identify distinct customer groups based on their purchase behaviour and preferences	I lack comprehensive insights and data analysis capabilities to understand customer patterns and trends	Uncertain about the effectiveness of our marketing campaigns, leading to lower customer engagement and loyalty
PS-3	A pricing analyst at Walmart	Optimize our pricing strategies to maximize revenue and competitiveness	It is difficult to understand the impact of different pricing strategies on sales performance and customer purchasing decisions	The current pricing models do not accurately capture price elasticity, competitive pricing, and consumer behaviour	Frustrated and worried about not being able to achieve optimal pricing that balances profitability with customer satisfaction