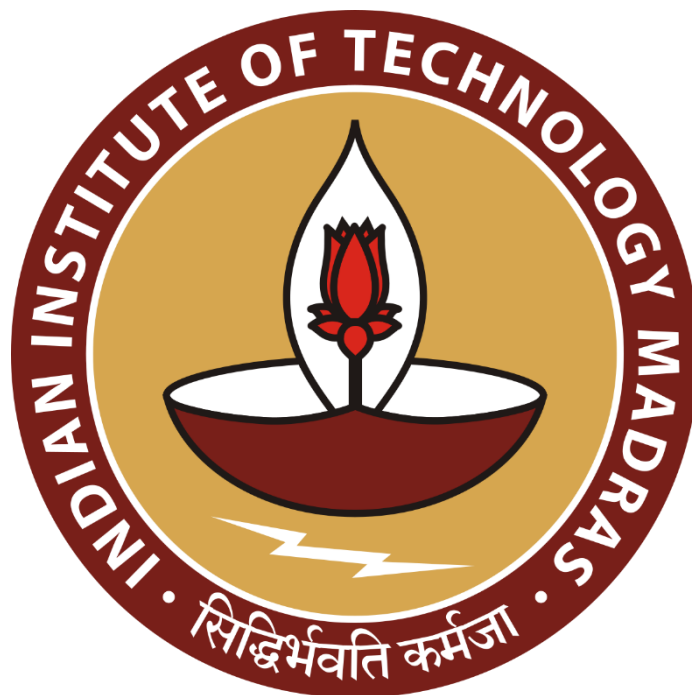# Analyzing The Business Model of
Kissan Sewa Kendra

A Proposal report for the BDM Capstone Project

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Executive Summary: -

The project focuses on a small shop of Fertilizers, Pesticides, and Insecticides located in Meham of Dist. Rohtak in Haryana. The business is B2C. The shop specializes in offering a wide range of products to cater to the needs of farmers, gardeners, and individuals involved in agricultural activities.

The major business issues faced by the organization are managing the inventory of fertilizers, pesticides, and insecticides can be complex due to the wide range of products available. These products have expiry dates and require regular rotation to ensure freshness and effectiveness. Overstocking or understocking can lead to financial losses or dissatisfied customers. Pesticides and Insecticides can be hazardous substances if not handled correctly. Demand for fertilizers, pesticides, and insecticides often fluctuates based on agricultural seasons and local market conditions. Pesticides, insecticides, and fertilizers are regulated substances, and shops selling these products need to comply with various regulations and licensing requirements. Many customers do have lack of knowledge about proper usage, dosage, and application of fertilizers, pesticides, and insecticides. The use of pesticides and insecticides can have environmental implications, including the potential for water and soil contamination or harm to non-target organisms. The cost of pesticides, insecticides, and fertilizers can be a subject to fluctuations due to factors like demand and supply, raw material prices, and government policies. Dealing with these challenges requires careful planning, adherence to regulations, continuous learning, and a customer-centric approach. By addressing these issues proactively, local shops selling pesticides, insecticides, and fertilizers can enhance their operations and build a loyal customer base.

The issues will be addressed by analyzing the data via different analytical approaches to obtain a fruitful outcome. It is crucial for these shops to have effective systems in place to monitor stock levels, track expiration dates, and ensure proper rotation to prevent wastage or selling expired products. Shops need to ensure the safety of their staff and customers by implementing proper safety protocols, providing necessary protective equipment, and training employees on safe handling and storage practices. Failure to adhere to safety measures can lead to accidents, health risks, or legal consequences. Shops may face challenges in managing inventory during peak seasons, ensuring availability of popular products, and adjusting prices according to market dynamics. Shops may face public scrutiny and pressure to promote environmentally friendly products and provide guidance on sustainable agricultural practices.

Organization Background: -

Kissan Seva Kendra is a renowned and trusted name in the realm of agricultural supplies, specializing in pesticides, fertilizers, and insecticides. Our journey began in 2010 when Mr. Ramesh Chahal, a passionate farmer himself, recognized the need for a reliable source of agricultural inputs in the region. With a vision to support farmers and promote sustainable farming practices, he established a shop of pesticides, fertilizers, and insecticides in a small town. In the early years, the shop primarily catered to local farmers, offering a limited range of products. However, driven by a commitment to excellence and a deep understanding of farmers' needs, the business steadily grew. As word spread about our quality products and personalized service, Kissan Seva Kendra became the go-to destination for agricultural solutions in the area. The turning point for our shop came in 2018 when Mr. Chahal's son, Mr. Dinesh Chahal, joined the family business. With his background in agricultural sciences, he introduced a broader range of

innovative products, including organic fertilizers and eco-friendly pesticides. This expansion helped Kissan Seva Kendra to reach a wider customer base and further solidify its position as a comprehensive agricultural solutions provider. Over the years, Kissan Seva Kendra has earned a reputation for its commitment to customer satisfaction and expertise in the field. Today, Kissan Seva Kendra stands tall as a well-established and respected name in the nearby shops of fertilizers and pesticides. Our wide range of high-quality products, coupled with our dedication to customer service, has enabled us to build long-term relationships with farmers, gardeners, and agricultural enthusiasts across the town. As we continue to grow, Kissan Seva Kendra remains committed to supporting farmers. With our comprehensive selection of pesticides, fertilizers, and insecticides, we strive to empower our customers to achieve higher yields, healthier crops, and a greener future.

Problem Statement: -

1. Analyze the company's total sales, and analyze how weather conditions, particularly seasonal changes, can influence the demand for specific products.

2. How to compete with other Pesticides, Fertilizers, and Insecticides outlets in town, to get higher revenues as compared to establishments.

3. How to educate and sell products to farmers with poverty-stricken farmers.

Background of the Problem: -

During the shop's initial launch, the proprietors encountered no difficulties in procuring land or attracting investors due to the comprehensive support they received from their family members. An advantageous factor stemmed from the absence of establishments retailing fertilizers, pesticides, and insecticides in the region, which facilitated their wide accessibility to the populace. Most farmers in the area belonged to the middle or lower socioeconomic class. Since no outlets for these products existed, only a fraction of individuals could afford them, further compounded by the arduous task of obtaining them from distant towns. After the shop's establishment, the availability of these items at lower prices, in contrast to those offered by alternative vendors in different towns, contributed to a noticeable surge in sales. Regrettably, the advent of new factories ushered in heightened pollution levels, thereby directly impacting the weather and precipitating a host of ensuing problems. All the crops cultivated in the region are subject to seasonal variations, and changes in weather patterns often pose challenges to the farmers, particularly due to irregular rainfall. Furthermore, a significant proportion of farmers lack adequate education, leading to a lack of knowledge regarding the appropriate utilization of fertilizers, pesticides, and insecticides. Consequently, instances of overdosing occur, and in such cases, farmers may incorrectly assign blame to the shopkeeper, presuming that incorrect products were provided. The lack of education among farmers regarding the proper application of these agricultural inputs exacerbates this issue. Given that India is a developing country, the number of fertilizer shops has been steadily increasing over time, resulting in intensified competition for the original shop. Consequently, the shop experienced a sudden decline in sales as other shops began offering the same products at lower prices. This sudden loss of trust among farmers primarily stems from the higher prices offered by the original shop in comparison to its competitors. As not all farmers can afford expensive products, they opt for more affordable alternatives available elsewhere. Consequently, the sales of the original shop continue to decline day by day.

Problem Solving Approach: -

1. Define the Problem: Begin by clearly defining the problem or objective of the analysis. For instance, you may want to identify the most popular products, determine customer buying patterns, or evaluate the effectiveness of marketing campaigns.

2. Data Collection: Collect relevant data from various sources, such as point-of-sale systems, purchase orders, invoices, and customer databases. Ensure that the data is comprehensive and accurate, covering a sufficient time period to capture meaningful trends.

3. Data Cleaning and Preprocessing: Clean the data to remove any errors, duplicates, or outliers that could skew the analysis. Standardize the data format and resolve any inconsistencies or missing values. This step ensures that the data is reliable and ready for analysis.

4. Data Exploration: Perform exploratory data analysis (EDA) techniques to gain an initial understanding of the data. Visualize the data using charts, graphs, and statistical measures to identify patterns, trends, and relationships between variables. Explore factors such as sales volume, product categories, customer demographics, and seasonal variations.

5. Segmentation and Profiling: Segment the customer base and products into meaningful categories based on relevant criteria such as geographic location, customer type, product type, or sales volume. Develop customer and product profiles to identify the most valuable customer segments and high-performing products.

6. Sales and Purchase Trends: Analyze sales and purchase trends over time to identify patterns and seasonality. Evaluate which products have shown consistent growth or decline, and examine factors that may have influenced these trends, such as marketing campaigns, changes in pricing, or external factors like weather conditions or regulations.

7. Customer Behavior Analysis: Analyze customer buying behavior to understand their preferences, repeat purchases, and loyalty. Identify the most profitable customers and the factors that drive their purchasing decisions. This analysis can help in designing targeted marketing campaigns, improving customer retention strategies, and optimizing product offerings.

8. Inventory Management: Analyze the purchase data to optimize inventory management. Identify products with slow-moving or excess inventory and take appropriate actions such as adjusting procurement levels or offering discounts. Use historical data to forecast future demand and ensure that the right inventory levels are maintained to avoid stockouts or overstocking.

9. Supplier Analysis: Evaluate the performance of suppliers based on purchase data. Identify suppliers that provide high-quality products, timely deliveries, and competitive pricing. This analysis can help negotiate better terms, establish long-term relationships, or explore alternative suppliers to improve profitability and customer satisfaction.

10. Actionable Insights and Decision Making: Summarize the findings of the analysis and extract actionable insights. Use the insights to make data-driven decisions, such as adjusting pricing strategies, optimizing marketing efforts, diversifying product offerings, or refining inventory management practices. Regularly monitor and review the outcomes of the decisions to assess their effectiveness and make necessary adjustments.

In conclusion, analyzing sales and purchase data for a fertilizers, pesticides, and insecticides shop requires a systematic approach that involves defining the problem, collecting and preprocessing the data, exploring the data, segmenting and profiling customers and products, analyzing trends, understanding customer behavior, optimizing inventory management, evaluating suppliers, and making informed decisions based on actionable insights. This comprehensive analysis enables businesses to improve their operations, enhance customer satisfaction, and drive profitability in a highly competitive market.

Expected Timeline: -

1. Work Breakdown Structure: -
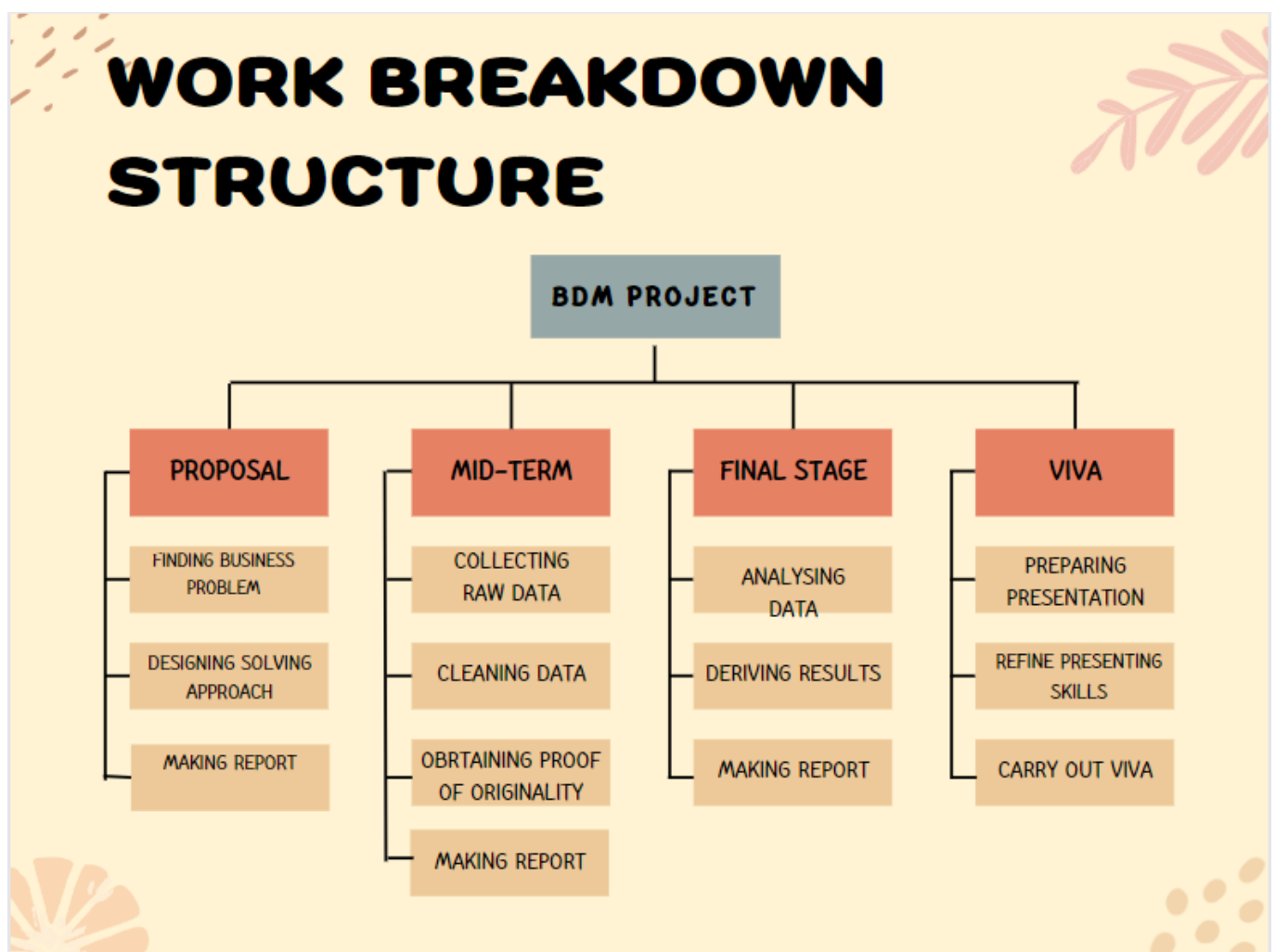
2. Gantt chart: -
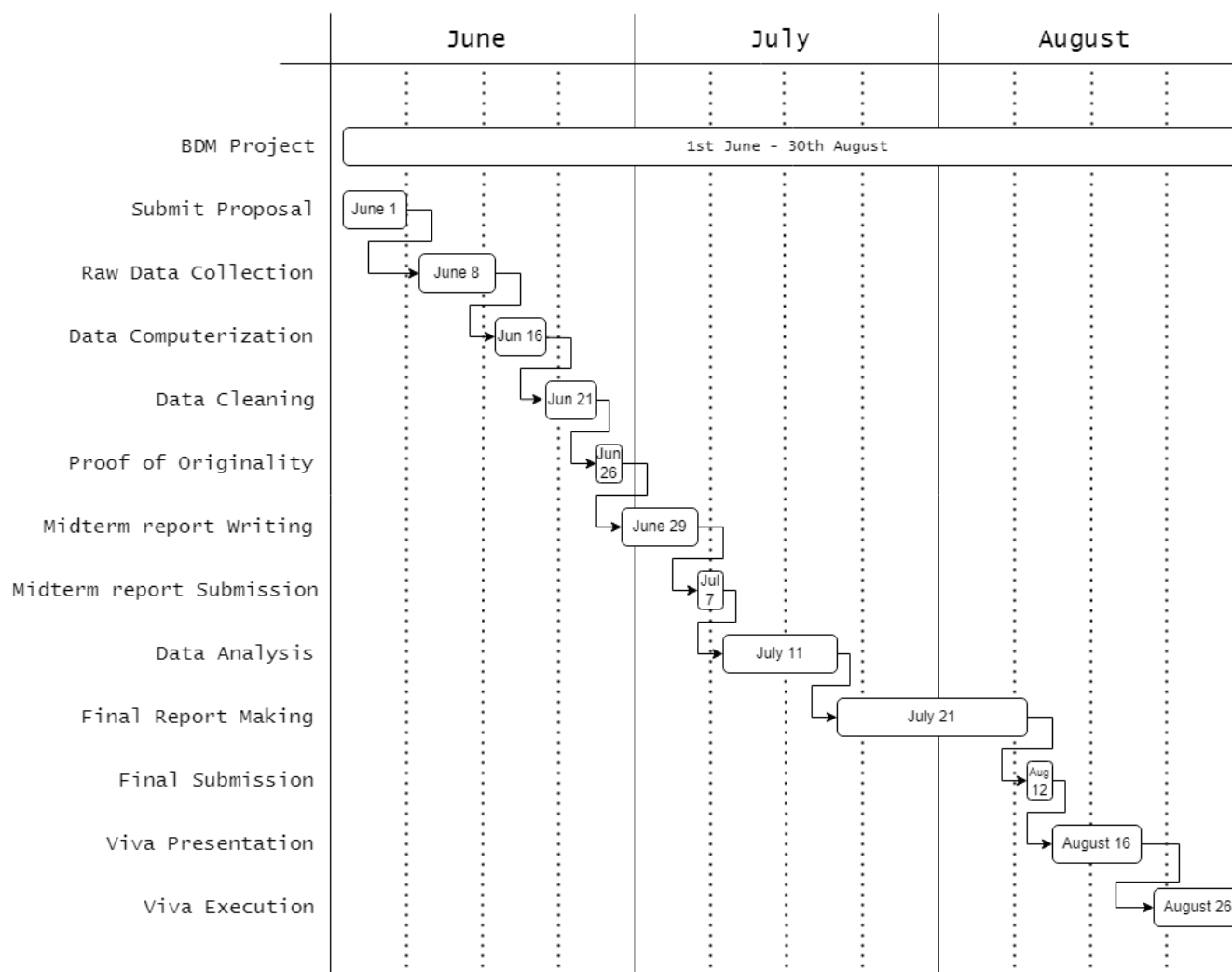
*Dates in the boxes are the starting date of each event

Expected Outcome: -

Analyzing the data of sales and purchase in a fertilizers, pesticides, and insecticides shop can lead to outcomes such as identifying top-selling products, optimizing inventory management, understanding customer preferences, improving marketing strategies, enhancing supplier relationships, forecasting demand, identifying profitable customer segments, and enabling data-driven decision making. These outcomes help businesses make informed decisions, increase customer satisfaction, drive sales, and maximize profitability in a competitive market.