**PRODUCT SALES ANALYSIS**

PHASE 1

**PROJECT DEFINITION**:

Sales analysis is reviewing your sales data to identify trends and patterns. Sales data can help you make better decisions about your product, pricing, promotions, inventory, customer needs other aspects of your business. Sales analysis can be as simple as reviewing your sales figures regularly.

**OBJECTIVES FOR PROJECT**:

Sales objectives for selling products could include: Increasing the size of average deals. Increasing annual up-sells. Increasing quarterly cross-sells.

**DATA COLLECTION**:

1.POINT OF SALES SYSTEMS:

**SOURCE:**

Most retail businesses use POS systems to record sales transactions .These systems automatically capture data on **items** sold , prices ,and transaction times.

**ACTIONABLE INSIGHTS:**

Deriving insights from data analytics is crucial for guiding inventory management and market strategy in various ways:

• **Demand Forecasting:**

Analyzing historical sales data and market trends can help you forecast demand more accurately. This allows for better inventory planning, ensuring you have enough stock to meet customer demands without overstocking and tying up capital.

**• Inventory Optimization**:

Data analytics can identify slow-moving or obsolete inventory items. By identifying these items, you can make informed decisions on clearance sales, discontinuation, or adjustments to reorder quantities.

**• Seasonal Trends**:

Historical data can reveal seasonal fluctuations in demand. Armed with this insight, you can adjust your inventory levels and marketing strategies accordingly to capitalize on peak seasons.

**• Supplier Performance**:

Analyzing data on supplier lead times, delivery reliability, and quality can help you make data-driven decisions when selecting suppliers and negotiating contracts. This ensures a smooth supply chain.

• **Customer Segmentation:**

Segmenting your customer base based on purchase history, demographics, or behavior can guide targeted marketing efforts. It helps in tailoring product offerings and promotions to specific customer groups

**• Market Expansion**:

Data analytics can identify untapped markets or regions with potential growth opportunities. You can allocate inventory and marketing resources strategically to expand your market reach.

**• Price Optimization**:

Analyzing pricing data, competitor pricing, and customer behavior can inform pricing strategies. You can adjust prices dynamically based on demand and competition.

**• Inventory Turnover**:

Monitoring inventory turnover ratios can help you assess the efficiency of your inventory management. High turnover indicates efficient use of capital, while low turnover might suggest excess inventory.

**• Risk Management:**

Predictive analytics can help identify potential supply chain disruptions or inventory shortages. This allows you to proactively mitigate risks and ensure business continuity.

**• A/B Testing**:

Conduct controlled experiments to test marketing strategies or inventory management changes. Analyze the results to determine which strategies yield the best outcomes.

**• Customer Feedback Analysis**:

Analyze customer reviews and feedback to identify product improvement opportunities and address customer pain points, enhancing product offerings.

**• Competitive Analysis**:

Evaluate your competitors’ inventory management and market strategies through data analysis. This can reveal gaps in the market or areas where you can differentiate your offerings.

To achieve these benefits, organizations often employ data analytics tools and techniques, including data mining, machine learning, and business intelligence platforms. Continuous monitoring and adjustment based on data-driven insights are key to effective inventory management and market strategy in today’s dynamic business environment

**•**METHOD:

You can extract sales data from your POS system’s reports and export it into a spreadsheet or database for analysis

**E-commerce platforms:**

**• SOURCE:**

If you operates an online stores, e-commerce platforms like Shopify ,WooCommerce ,or Magento collect sales data for you.

**• METHOD:**

Access the built-in reporting tools of your e-commerce platform to retrieve sales data or integrate third-party analytics tools.

**SURVEYS AND FEEDBACK:**

**•SOURCE:**

Collect sales data through customer surveys or feedback forms

**•METHODS:**

Analyze responses to extract insights into customer preferences and buying behaviour.

**DATA ANALYTICS TOOLS:**

**•SOURCE**:

Utilize data analytics tools like google analytics for online sales or specialized business intelligence tools

**•METHOD**:

Set up tracking and reporting configurations within these tools to gather sales data

**IN-PERSON OBSERVATION**:

•SOURCE:

In some cases , businesses may have staff observe and record sales data in real-time

**•METHOD:**

Observers manually note sales, and this data can be transcribed and analysed

**VISUALIZATION STRATEGY:**

**DASHBOARDS:**

• On the home page, click the New icon at the bottom of the window.

• Click Dashboard.

• You see predefined templates that contain grid lines for easy arrangement and alignment of visualizations and other elements in a dashboard.

**REPORTS:**

• In the IBM Control Center console, click Tools > IBM Cognos Reports.

• Click Create New, and click Blank.

• Optional: Click the Toolbox pane, click Visualization, and it opens the visualization gallery.

• In the Data Source pane, select the items that you want to appear in the widget.

• Click Run.

• Click Save.

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**Conclusion:**

In conducting a comprehensive analysis of product sales data, several key findings have emerged that shed light on the performance and trends related to our products. These insights can guide strategic decisions and optimize future sales efforts. Here are the main conclusions drawn from the analysis:

•Sales performance

•Seasonal trends

•Customer demographics

•Marketing channel effectiveness

•Product performance

•Competitive landscape

•Recommendations for improvement

•Future outlook