

THE FINAL ASSESSMENT

TECHSAKSHAM

2025

Topic: Impact of Marketing on Sales.

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IMPACT OF MARKETING ON SALES

- Title: Impact of Marketing Strategies on Sales.
- Objective: The primary objective of this study is to analyze and understand the measurable effects of various marketing campaigns and strategies on sales growth by leveraging historical sales data. This analysis aims to provide insights into how marketing efforts directly influence sales performance over a specific period.
- Problem Statement: In today's competitive business environment, organizations often face significant challenges in accurately quantifying and evaluating the effectiveness of their marketing strategies. This lack of clarity can lead to inefficient allocation of resources and missed opportunities for optimizing sales performance, ultimately affecting overall business growth and profitability.
- Solution: To address this challenge, Python will be utilized as a powerful analytical tool to process, visualize, and interpret sales data collected before and after the implementation of marketing campaigns. This data-driven approach will help organizations gain actionable insights into the success of their marketing efforts, enabling them to make informed decisions and refine future strategies for improved sales outcomes.

➤ Implementation Code:

```
import pandas as pd
import matplotlib.pyplot as plt

# Marketing campaign data
campaign_data = {
    'Month': ['Jan', 'Feb', 'Mar', 'Apr', 'May'],
    'Sales_Before': [200, 220, 210, 230, 240],
    'Sales_After': [250, 270, 260, 300, 320]
}

# Create a DataFrame from the campaign data
df = pd.DataFrame(campaign_data)

# Calculate the percentage increase in sales
df['Increase (%)'] = ((df['Sales_After'] - df['Sales_Before']) / df['Sales_Before']) * 100

# Display the DataFrame
print("Marketing Campaign Data with Percentage Increase:")
print(df)

# Visualization of sales data before and after the campaign
plt.figure(figsize=(8, 5)) # Set the figure size
plt.plot(df['Month'], df['Sales_Before'], label='Before Campaign', marker='o',
         linestyle='--', color='blue')
plt.plot(df['Month'], df['Sales_After'], label='After Campaign', marker='o', linestyle='-',
         color='green')

# Add title and labels
plt.title('Sales Comparison Before and After Marketing Campaign', fontsize=14)
plt.xlabel('Month', fontsize=12)
plt.ylabel('Sales', fontsize=12)

# Add legend
plt.legend(loc='upper left')

# Display the plot
plt.grid(True, linestyle='--', alpha=0.6) # Add grid for better readability
plt.tight_layout() # Adjust layout to prevent overlap
plt.show()
```

➤ Output:

