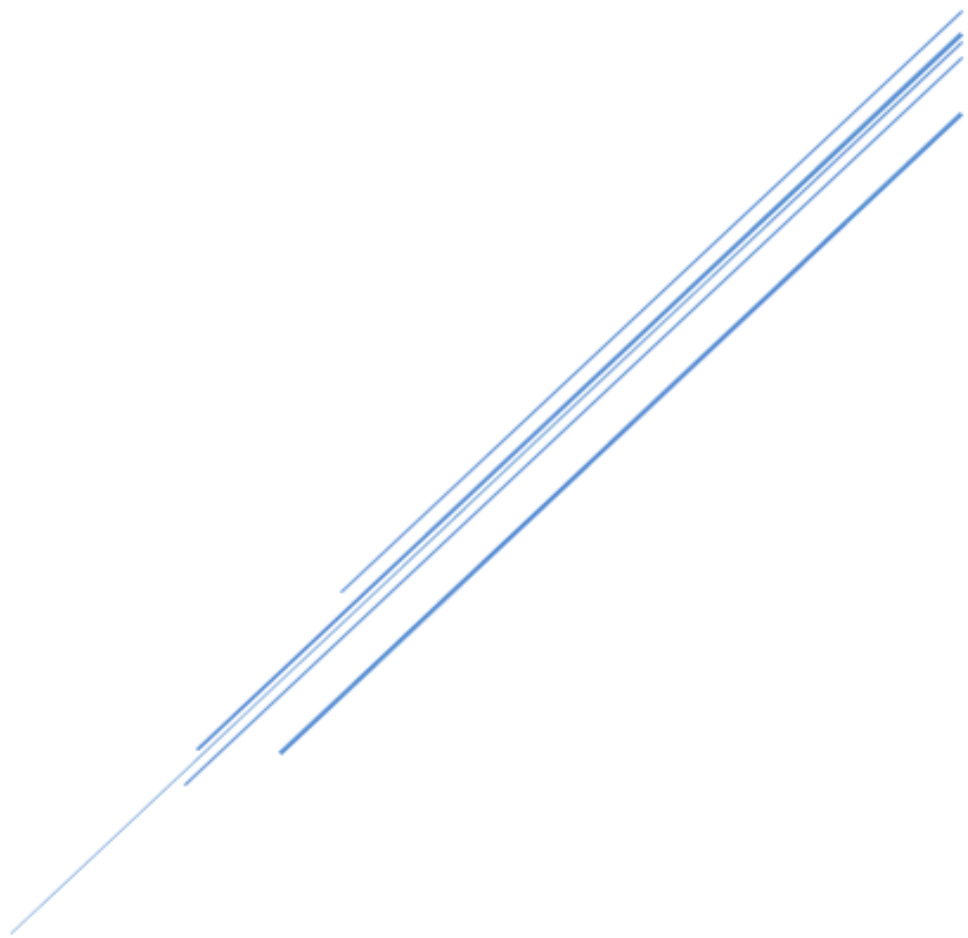


# DATA ANALYSIS

E-Commerce



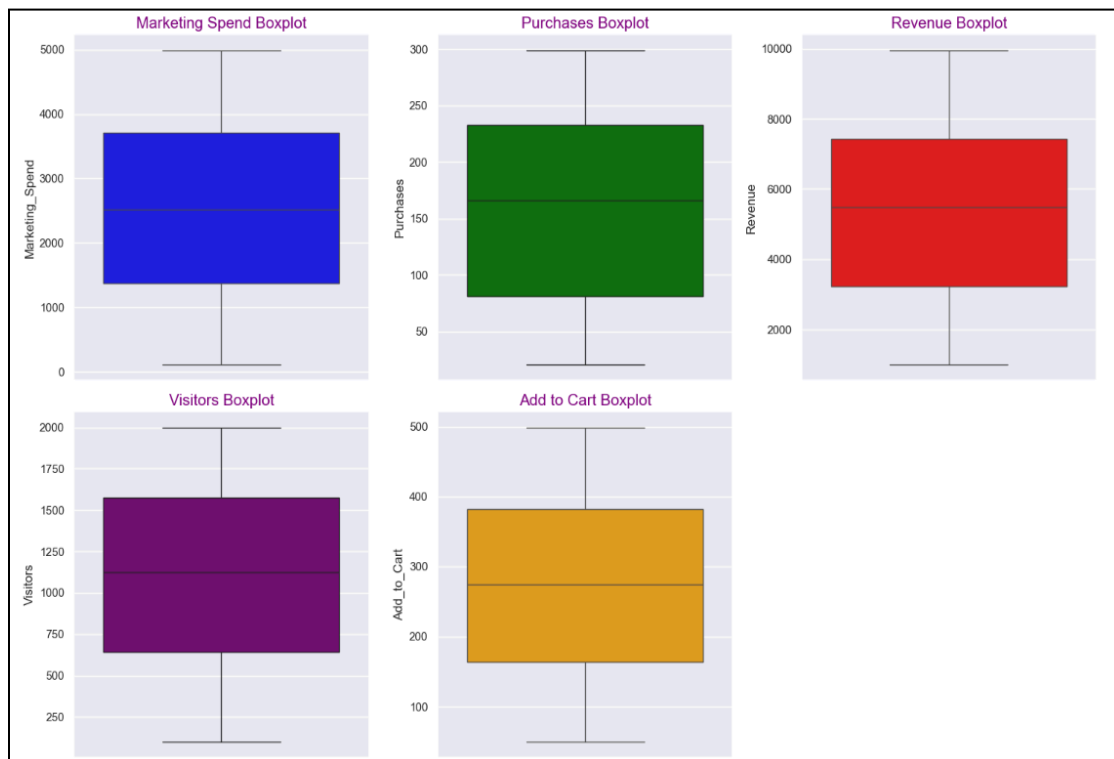
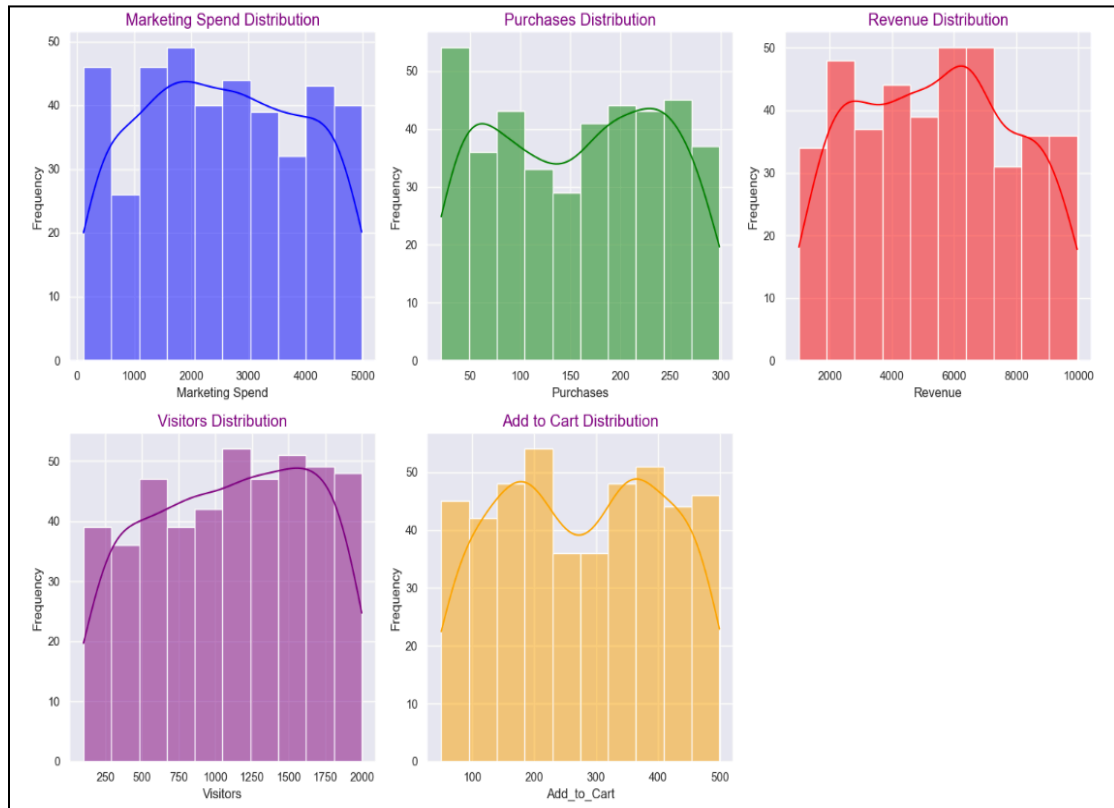
<b>Step 1: Understanding the Data.....</b>	<b>2</b>
1.1 Exploring Feature Distributions.....	3
1.2 Handling Business-Defined Metrics.....	4
<b>Step 2: Data Preprocessing and Cleaning.....</b>	<b>5</b>
2.1 Identifying Patterns in Missing Data.....	5
2.2 Imputation Strategy.....	6
<b>Step 3: Campaign Performance Analysis.....</b>	<b>7</b>
2.1 Key Insights.....	8
2.2 Suggestions.....	9
<b>Step 4: Traffic Source Performance Analysis.....</b>	<b>11</b>
4.1 Key Insights.....	12
4.2 Suggestions.....	13
<b>Step 5: Customer Type Analysis.....</b>	<b>16</b>
5.1 Key Insights.....	17
5.2 Suggestions:.....	18
<b>Step 6: Cross Vertical Analysis.....</b>	<b>20</b>
6.1 Top 10 Highest Cart Abandonment Rates.....	20
6.2 Top 10 Highest Repeat Purchase Rates.....	20
6.3 Top 10 Highest Conversion Rates.....	21
6.4 Top 10 highest ROI.....	21
<b>Step 7: Find Cluster Patterns.....</b>	<b>22</b>
7.1 Campaign Wise.....	22
7.2 Customer Wise.....	23
7.3 Traffic Source Wise.....	24
<b>8. Main Findings and Suggestions.....</b>	<b>25</b>
8.1 Key Findings:.....	25
8.2 Targeted Suggestions:.....	25

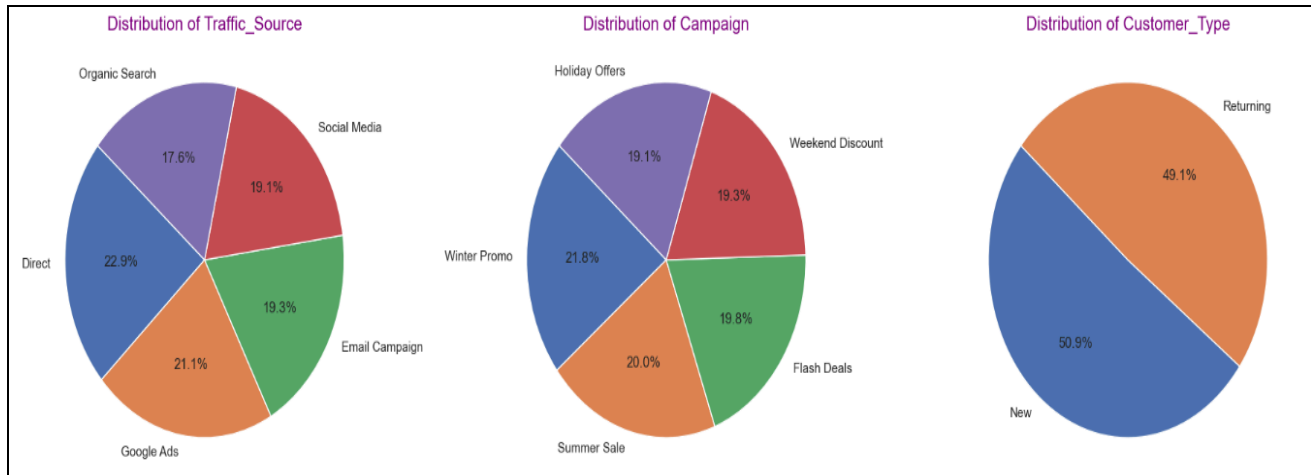
## Step 1: Understanding the Data

- The dataset consists of 450 rows and 12 columns.
- The date column was converted into a datetime object for proper analysis.
- A summary of the dataset was generated using the `describe()` function, revealing no unusual patterns or inconsistencies.

Date	The date when the data was recorded.
Traffic Source	The origin of website visitors
Campaign	The specific marketing campaign responsible for bringing traffic.
Customer Type	Classification of visitors based on behavior
Visitors	The number of users who visited the website
Marketing Spend	The amount spent on marketing campaigns
Add to Cart	The number of visitors who added items to their shopping cart
Purchases	The number of completed transactions
Revenue	The total money earned from purchases
Cart Abandonment Rate	The percentage of users who add items to their cart but don't complete checkout.
Repeat Purchase Rate	The percentage of customers who buy again within a specific period
Conversion Rate	The percentage of visitors who complete a purchase.

## 1.1 Exploring Feature Distributions





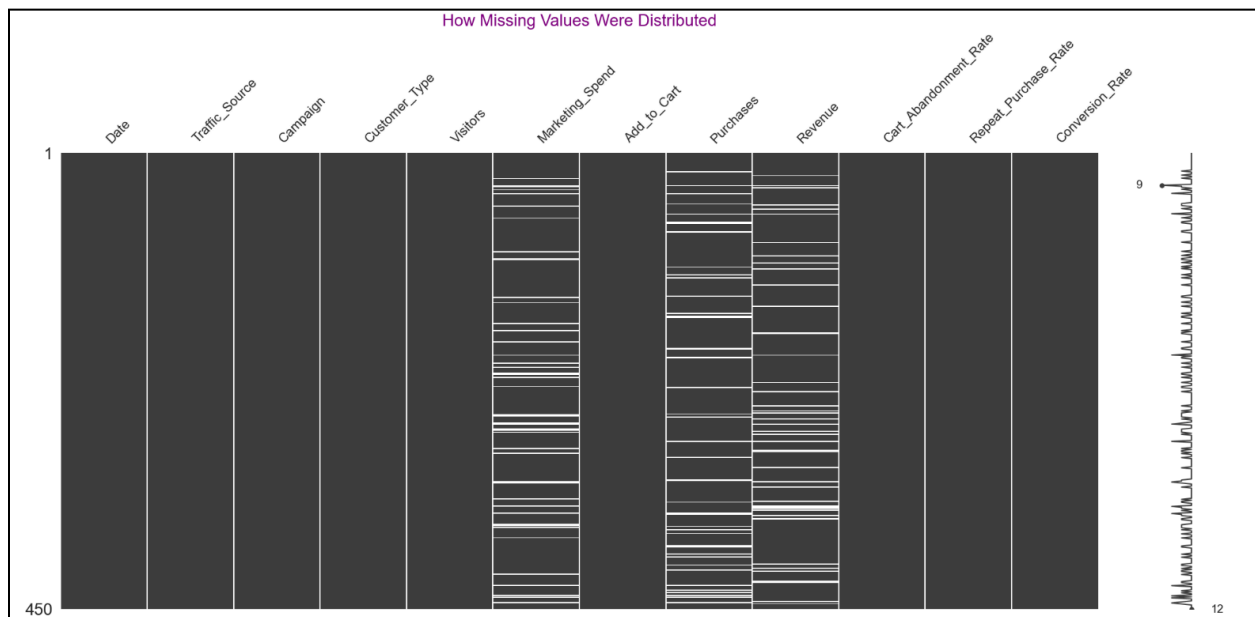
- Histograms, box plots, and pie charts were used to visualize feature distributions.
- The data showed nearly uniform distributions with no skewness.
- There were no significant outliers observed in the dataset.
- Categorical variables were well-balanced, with no dominance of any single category

## 1.2 Handling Business-Defined Metrics

- The provided conversion rates and cart abandonment rates differed from the rates calculated using raw data.
- Since businesses often define and calculate these metrics using specific logic, it is best to use the provided values instead of recalculating them.
- Using the business-defined metrics helps:
  - Ensure alignment with how the business interprets these key performance indicators.
  - Avoid misinterpretation of business logic, which could lead to incorrect insights or confusion.

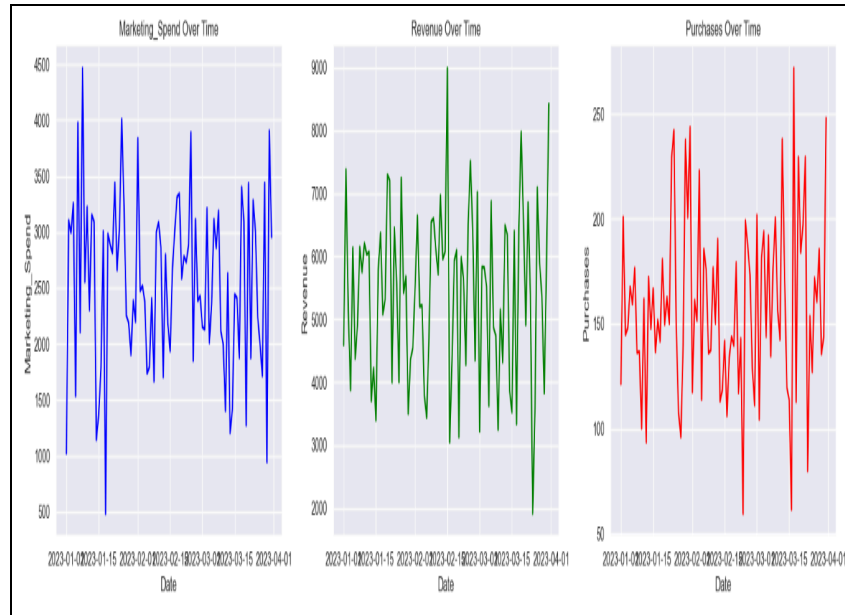
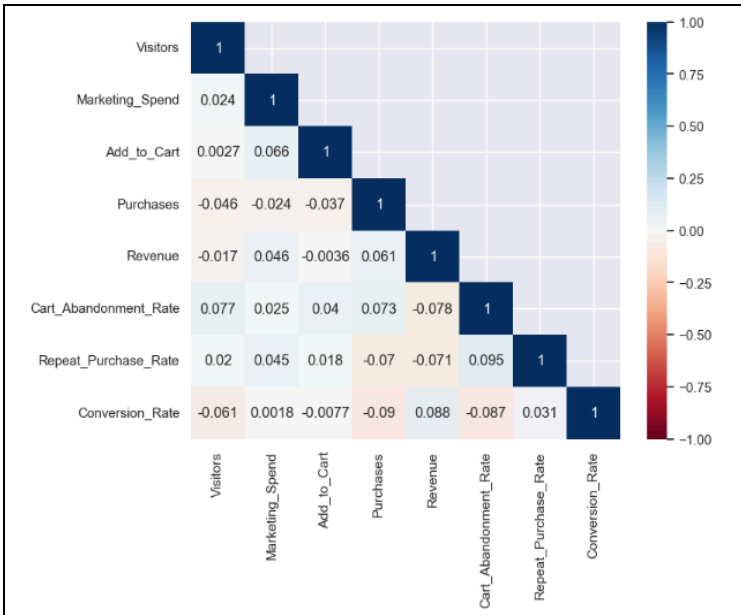
## Step 2: Data Preprocessing and Cleaning

- No duplicate entries were found in the dataset.
- Missing values were detected in the **marketing\_spend**, **purchases**, and **revenue** columns.
  - Only one row had all three values missing.
  - 12 rows had at least two missing values.
  - 121 rows had at least one missing value, accounting for 28% of the data—too high for simple deletion.



### 2.1 Identifying Patterns in Missing Data

- Correlation analysis showed no significant relationships with other features for imputing missing values.
- Time series visualization revealed no seasonal or cyclic patterns in the data.
- Analysis by **traffic\_source**, **campaign**, and **customer\_type** showed no specific pattern in missing values.



## 2.2 Imputation Strategy

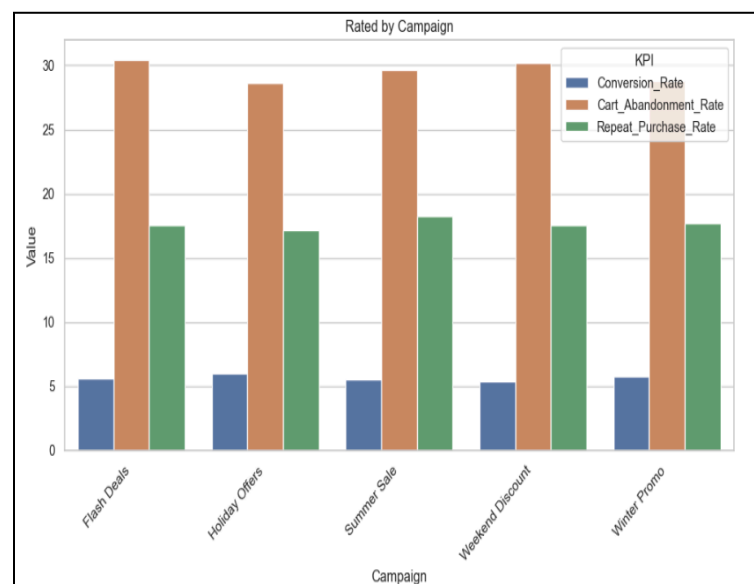
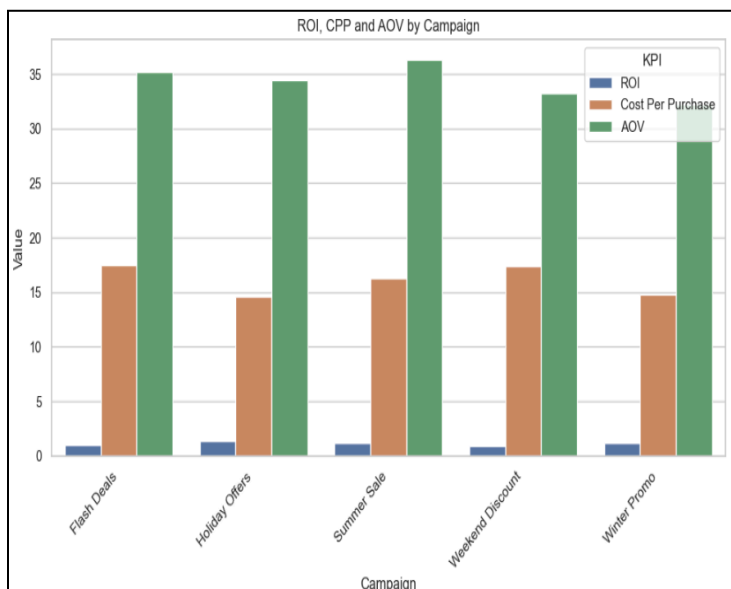
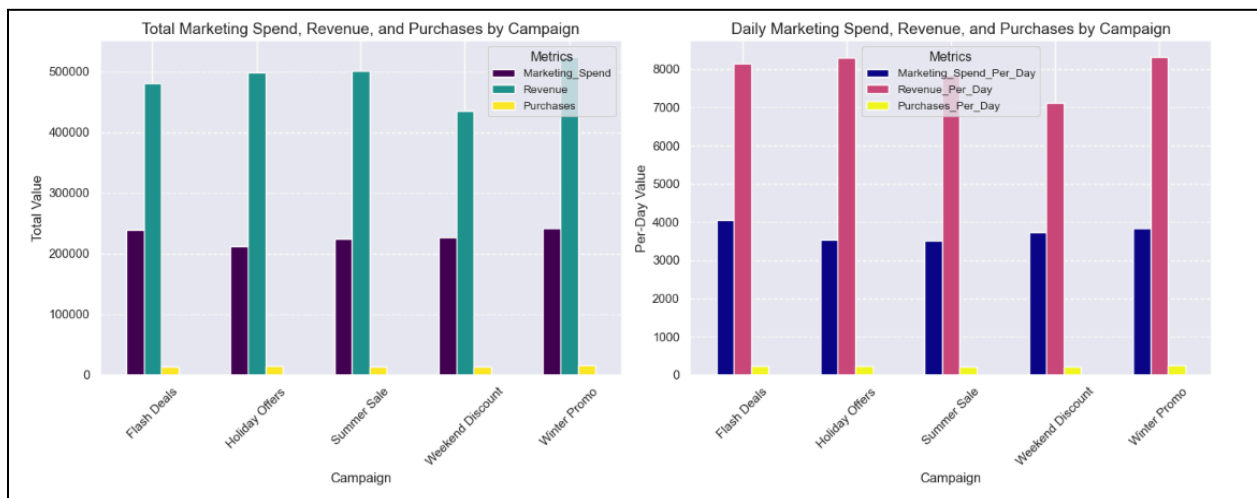
Since there were no outliers, mean imputation was chosen as the best approach.

- For **marketing\_spend**:
  - Imputed using mean values grouped by **traffic\_source** and **campaign** because:
    - Different traffic sources have distinct spending patterns.
    - Spending is planned at the campaign level, not at the customer level.
- For **revenue** and **purchases**:
  - Imputed using mean values grouped by **traffic\_source**, **campaign**, and **customer\_type** considering real-world business logic:
    - Different customer types generate different revenues.
    - Some campaigns target returning customers, who are more likely to make purchases.

## Step 3: Campaign Performance Analysis

Campaign-wise performance was analyzed using key metrics: revenue, marketing spend, total purchases, cost per purchase, average order value (AOV), return on investment (ROI), cart abandonment rate, repeat purchase rate, and conversion rate.

Campaign	Marketing_Spend	Revenue	Purchases	Conversion_Rate	Cart_Abandonment_Rate	Repeat_Purchase_Rate	ROI	Cost Per Purchase	AOV
Holiday Offers	211942.08	497796.67	14466.0	5.96	28.66	17.14	1.35	14.65	34.41
Summer Sale	224294.44	501663.75	13811.0	5.51	29.63	18.24	1.24	16.24	36.32
Winter Promo	241361.63	524334.99	16284.0	5.73	28.80	17.68	1.17	14.82	32.20
Flash Deals	238562.56	480212.77	13648.0	5.61	30.43	17.58	1.01	17.48	35.19
Weekend Discount	227200.28	434486.13	13074.0	5.39	30.19	17.58	0.91	17.38	33.23





## 2.1 Key Insights

### **Holiday Offers Campaign is the Most Successful:**

- It has the revenue (497,796.67), the purchases (14,466), and the best ROI (1.35).
- It also boasts the highest conversion rate (5.96%) and the lowest cost per purchase (14.65).

### **Weekend Discount Campaign is the Least Effective:**

- It has the lowest revenue (434,486.13), the fewest purchases (13,074), and the lowest ROI (0.91).
- It also has the lowest conversion rate (5.39%) and a high cost per purchase (17.38).

### **Cart Abandonment Rates are Consistently High:**

- All campaigns have cart abandonment rates above 28%, with Flash Deals exceeding 30%. This indicates potential issues in the checkout process.

### **Repeat Purchase Rates are Relatively Low:**

- Repeat purchase rates are all below 20%, suggesting a need for strategies to improve customer loyalty.

### **AOV (Average Order Value) is Fairly Consistent:**

- AOV ranges from 32.20 to 36.32, indicating a relatively stable spending pattern per order.

### **Marketing Spend vs. Revenue Correlation:**

- There's a general trend of higher marketing spend leading to higher revenue, but the efficiency varies significantly across campaigns.

## 2.2 Suggestions

### 1. Optimize the Weekend Discount Campaign:

Campaign	Traffic_Source	ROI	Conversion_Rate	Cost_Per_Purchase	Repeat_Purchase_Rate	Cart_Abandonment_Rate	AOV
Weekend Discount	Social Media	1.23	5.31	17.77	16.76	27.62	39.71
Weekend Discount	Google Ads	1.01	5.68	14.81	17.56	26.83	29.74
Weekend Discount	Direct	1.00	4.87	17.51	16.88	29.44	34.95
Weekend Discount	Organic Search	0.70	5.13	21.29	19.86	33.15	36.18
Weekend Discount	Email Campaign	0.69	6.30	15.64	16.51	34.98	26.47

- Social Media Traffic Source ROI was good. There Were High Cart Abandonment Rates in other Traffic sources. Also AOV is relatively low in other traffic sources compared to social media.
- **Targeting:** Review the targeting strategy. Is it reaching the right audience? Experiment with different demographics or interests. In Social Media ROI was Good.
- **Landing Page and Product Selection:** Ensure the landing page is relevant and engaging. Highlight popular or discounted items.
- **Urgency and Scarcity:** Create a sense of urgency (e.g., limited-time offer) or scarcity (e.g., limited stock) to encourage immediate purchases.

### 2. Address Cart Abandonment:

- **Simplify the Checkout Process:** Reduce the number of steps, offer guest checkout, and minimize required information.
- **Offer Multiple Payment Options:** Cater to diverse customer preferences by providing various payment methods.
- **Send Abandoned Cart Emails:** Implement automated emails to remind customers about their abandoned carts, potentially with a small incentive.
- **Improve Site Speed and Mobile Optimization:** Ensure a seamless experience across all devices.
- **Transparent Shipping and Return Policies:** Clearly display shipping costs and return policies to build trust.

### 3. Capitalize on the Success of the Holiday Offers Campaign:

Campaign	Traffic_Source	ROI	Conversion_Rate	Cost_Per_Purchase	Repeat_Purchase_Rate	Cart_Abandonment_Rate	AOV
Holiday Offers	Social Media	1.95	6.47	12.31	14.02	25.49	36.35
Holiday Offers	Direct	1.77	6.06	12.60	19.28	30.93	34.86
Holiday Offers	Email Campaign	1.24	5.93	13.82	15.70	32.04	30.94
Holiday Offers	Google Ads	1.07	5.80	16.49	16.79	24.13	34.13
Holiday Offers	Organic Search	1.01	5.73	18.70	18.38	29.18	37.66

- **Recorded High ROIs in social media, direct and email campaigns while maintaining lower cost per purchase.**
- **Replicate Strategies:** Apply successful strategies from the Holiday Offers campaign to other campaigns.
- **Increase Marketing Budget:** Consider allocating a larger budget to the Holiday Offers campaign or similar campaigns in the future.

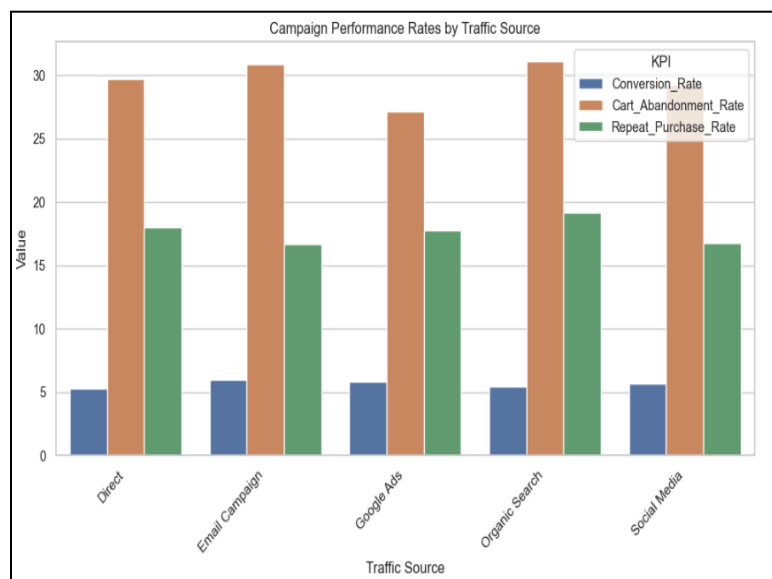
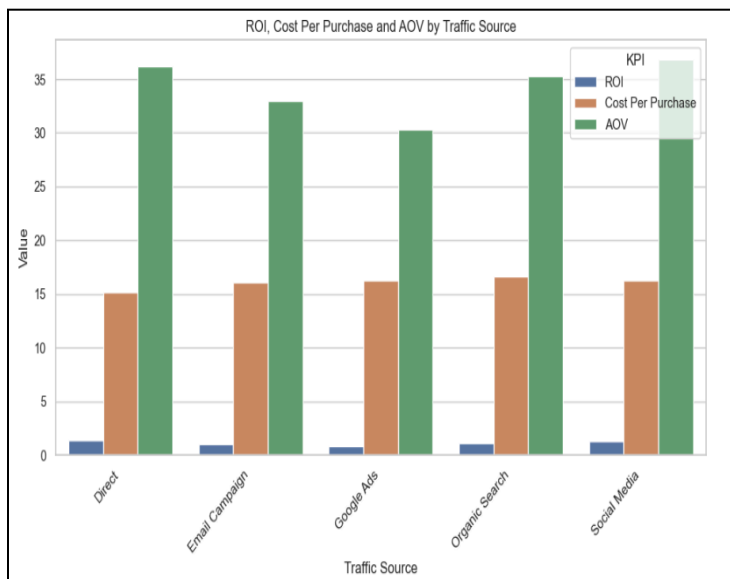
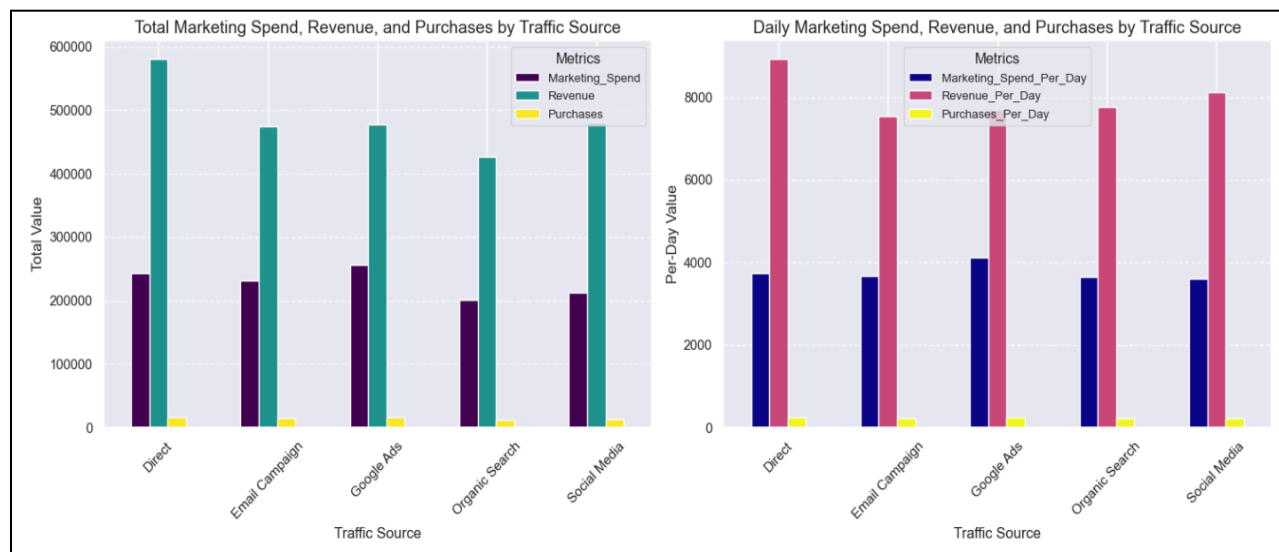
### 4. AOV Improvement:

- **Upselling and Cross-selling:** Offer related or complementary products during the checkout process.
- **Bundle Deals:** Create attractive bundle deals to encourage customers to purchase more items.
- **Minimum Purchase Thresholds:** Offer free shipping or discounts for orders above a certain amount.

## Step 4: Traffic Source Performance Analysis

Traffic source performance was analyzed using key metrics (revenue, marketing spend, total purchases, cost per purchase, average order value (AOV), return on investment (ROI), cart abandonment rate, repeat purchase rate, and conversion rate).

Traffic_Source	Marketing_Spend	Revenue	Purchases	Conversion_Rate	Cart_Abandonment_Rate	Repeat_Purchase_Rate	ROI	Cost Per Purchase	AOV
Direct	243462.21	580113.79	16008.0	5.31	29.67	17.98	1.38	15.21	36.24
Email Campaign	231010.29	474540.72	14406.0	5.99	30.89	16.70	1.05	16.04	32.94
Google Ads	255457.75	477224.01	15743.0	5.84	27.15	17.74	0.87	16.23	30.31
Organic Search	200966.75	426692.13	12085.0	5.43	31.06	19.13	1.12	16.63	35.31
Social Media	212463.99	479923.67	13041.0	5.66	29.20	16.76	1.26	16.29	36.80



## 4.1 Key Insights

### **Direct Traffic Generates the Most Revenue and Purchases:**

- It leads in revenue (580,113.79), purchases (16,008), and visitors (114,651).
- It also has a strong ROI (1.38) and the lowest cost per purchase (15.21).

### **Email Campaign Has the Highest Conversion Rate:**

- It has the highest conversion rate (5.99%), indicating effective targeting and messaging.

### **Google Ads Have the Lowest ROI:**

- Despite significant marketing spend (255,457.75), Google Ads have the lowest ROI (0.87) and a relatively high cost per purchase (16.23).

### **Organic Search Has the Highest Repeat Purchase Rate:**

- It has the highest repeat purchase rate (19.13%), suggesting strong customer loyalty from this channel.

### **All Channels Have High Cart Abandonment Rates:**

- Cart abandonment rates are consistently high across all traffic sources, ranging from 27.15% to 31.06%, indicating a potential issue with the checkout process.

### **AOV Varies Across Channels:**

- AOV ranges from 30.31 (Google Ads) to 36.80 (Social Media), showing differences in customer spending habits across traffic sources.

## 4.2 Suggestions

### 1. Capitalize on Direct Traffic:

Traffic_Source	Campaign	Customer_Type	ROI	Conversion_Rate	Cost_Per_Purchase	Repeat_Purchase_Rate	Cart_Abandonment_Rate	AOV
Direct	Winter Promo	Returning	2.05	5.09	8.72	19.16	23.75	26.54
Direct	Holiday Offers	New	1.93	7.38	15.88	20.08	31.76	46.57
Direct	Summer Sale	New	1.82	4.92	14.98	15.49	31.51	42.30
Direct	Summer Sale	Returning	1.39	5.46	16.50	19.91	30.56	39.42
Direct	Holiday Offers	Returning	1.36	3.74	8.43	17.87	29.48	19.92
Direct	Weekend Discount	New	1.36	5.62	21.10	19.88	34.70	49.84
Direct	Flash Deals	Returning	1.28	4.68	20.61	20.00	30.95	47.00
Direct	Flash Deals	New	1.18	4.85	16.95	16.80	24.03	36.93
Direct	Winter Promo	New	1.07	5.89	15.41	17.12	32.22	31.83
Direct	Weekend Discount	Returning	0.80	4.47	16.02	15.27	26.60	28.76

- **Improve User Experience:** Ensure the website is user-friendly and easy to navigate for direct visitors.
- **Build Brand Awareness:** Invest in marketing efforts that drive direct traffic, such as PR, content marketing, and offline advertising.
- **Enhance Website Speed and Performance:** Optimize website loading times to improve user experience and reduce bounce rates.

### 2. Optimize Google Ads Campaign:

Traffic_Source	Campaign	Customer_Type	ROI	Conversion_Rate	Cost_Per_Purchase	Repeat_Purchase_Rate	Cart_Abandonment_Rate	AOV
Google Ads	Weekend Discount	New	1.30	6.64	14.36	17.99	27.30	32.98
Google Ads	Summer Sale	Returning	1.24	5.90	15.48	16.86	29.67	34.69
Google Ads	Holiday Offers	Returning	1.14	5.55	13.95	14.81	22.66	29.80
Google Ads	Winter Promo	New	1.01	5.66	14.66	21.59	27.03	29.49
Google Ads	Holiday Offers	New	1.01	6.01	19.85	18.42	25.33	39.83
Google Ads	Winter Promo	Returning	0.62	6.40	18.37	18.49	29.43	29.83
Google Ads	Flash Deals	Returning	0.62	5.60	16.79	19.87	25.85	27.15
Google Ads	Summer Sale	New	0.61	7.03	16.32	13.95	25.20	26.23
Google Ads	Flash Deals	New	0.47	5.12	18.48	16.31	31.13	27.15
Google Ads	Weekend Discount	Returning	0.44	3.37	15.79	16.54	25.71	22.80

- **ROI was very low in most combinations.**
- **Refine Targeting:** Review keyword targeting, demographics, and interests to ensure ads are reaching the right audience.
- **Improve Ad Creatives:** Create compelling ad copy and visuals that resonate with the target audience.
- **Optimize Landing Pages:** Ensure landing pages are relevant to the ad and provide a seamless user experience.
- **A/B Test Ad Elements:** Continuously test different ad elements (e.g., headlines, descriptions, call-to-actions) to identify what works best.
- **Consider Retargeting:** Implement retargeting campaigns to reach users who have previously interacted with the website.

### 3. Leverage the Email Campaign's High Conversion Rate:

- **Expand Email List:** Implement strategies to grow the email list, such as offering incentives for signing up.
- **Personalize Email Content:** Segment the email list and personalize content based on customer preferences and behavior.
- **Automate Email Campaigns:** Set up automated email campaigns for abandoned carts, welcome messages, and post-purchase follow-ups.
- **Test Different Email Subject Lines and Content:** Continuously test email elements to optimize open and click-through rates.

### 4. Strengthen Organic Search Performance:

- **Improve SEO:** Optimize website content, meta descriptions, and title tags for relevant keywords.
- **Build High-Quality Backlinks:** Earn backlinks from reputable websites to improve search engine rankings.
- **Create Valuable Content:** Develop high-quality content that attracts organic traffic and establishes the website as an authority in its niche.
- **Optimize for Mobile:** Ensure the website is mobile-friendly and provides a seamless experience on all devices.

### 5. Address Cart Abandonment Across All Channels:

- **Simplify Checkout Process:** Reduce the number of steps, offer guest checkout, and minimize required information.
- **Offer Multiple Payment Options:** Cater to diverse customer preferences by providing various payment methods.

- **Send Abandoned Cart Emails:** Implement automated emails to remind customers about their abandoned carts, potentially with a small incentive.
- **Improve Site Speed and Mobile Optimization:** Ensure a seamless experience across all devices.
- **Transparent Shipping and Return Policies:** Clearly display shipping costs and return policies to build trust.

#### 6. Capitalize on Organic Search's High Repeat Purchase Rate:

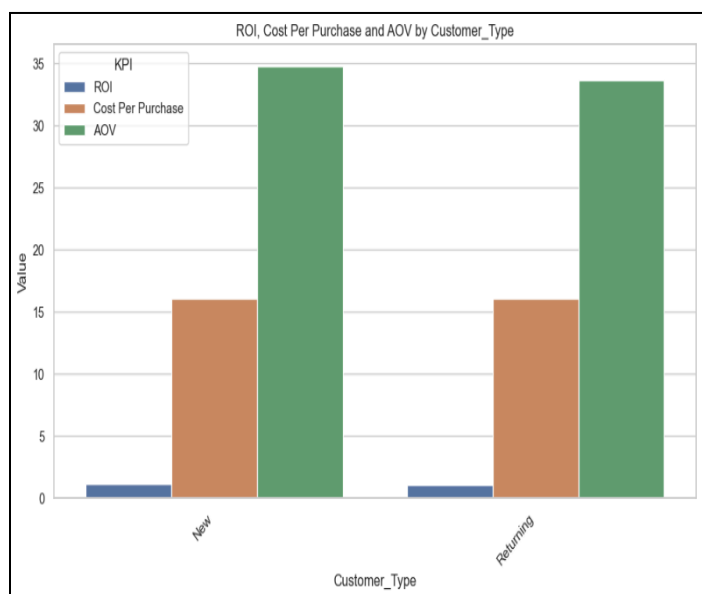
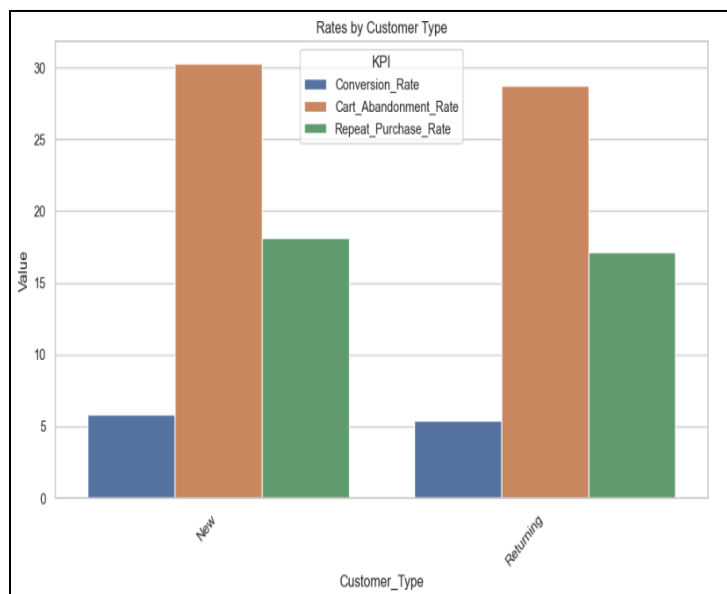
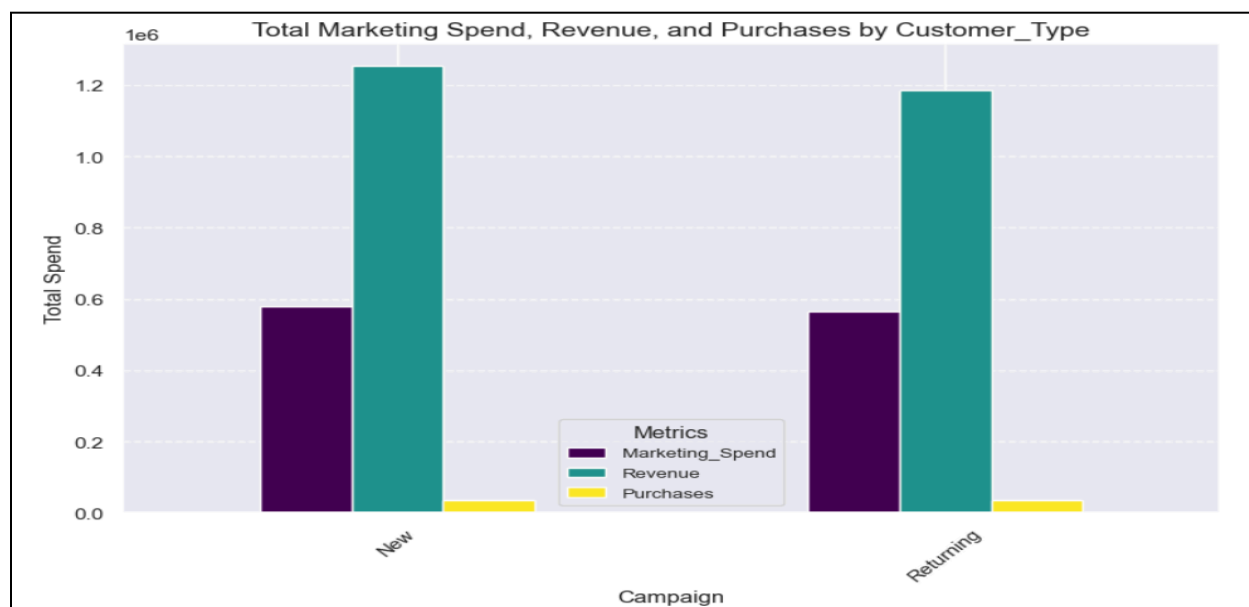
- **Loyalty Programs:** Implement a points-based or tiered loyalty program to reward repeat customers.
- **Personalized Recommendations:** Use customer data to provide personalized product recommendations.
- **Email Marketing:** Send targeted emails with exclusive offers, product updates, or content relevant to past purchases.
- **Post-Purchase Engagement:** Follow up with customers after their purchase to ensure satisfaction and encourage feedback.
- **Subscription Services:** Consider offering subscription options for frequently purchased items.



## Step 5: Customer Type Analysis

There were no significant differences observed in any of the metrics (revenue, marketing spend, total purchases, cost per purchase, average order value (AOV), ROI, cart abandonment rate, repeat purchase rate, and conversion rate) when analyzed by customer type

Customer_Type	Marketing_Spend	Revenue	Purchases	Conversion_Rate	Cart_Abandonment_Rate	Repeat_Purchase_Rate	ROI	Cost Per Purchase	AOV
New	578006.303385	1.252416e+06	36026.0	5.832314	30.287336	18.116856	1.166787	16.044143	34.764237
Returning	565354.696428	1.186078e+06	35257.0	5.441946	28.742941	17.167014	1.097936	16.035247	33.640920



## 5.1 Key Insights

- **New Customers Drive More Revenue and Purchases:**
  - New customers generate significantly more revenue (1,252,416) and purchases (36,026) compared to returning customers.
- **New Customers Have a Higher Conversion Rate:**
  - New customers have a higher conversion rate (5.83%) than returning customers (5.44%), indicating effective acquisition strategies.
- **New Customers Have a Higher Cart Abandonment Rate:**
  - New customers have a higher cart abandonment rate (30.29%) compared to returning customers (28.74%).
- **Returning Customers Have a Lower AOV (Average Order Value):**
  - Returning customers have a slightly lower AOV (33.64) compared to new customers (34.76).
- **New Customers Have a Higher Repeat Purchase Rate:**
  - Interestingly, new customers have a higher repeat purchase rate (18.12%) than returning customers (17.17%). This is unusual and warrants further investigation.
- **Both Customer Types Have Similar Cost Per Purchase:**
  - The cost per purchase is almost identical for both new and returning customers (around \$16).
- **New Customers Have a Higher ROI:**
  - New customers have a higher ROI (1.17) compared to returning customers (1.10).

## 5.2 Suggestions:

### 1. Investigate the Higher Repeat Purchase Rate for New Customers:

- **Campaign Attribution:** Review campaign attribution to ensure new customers are not being incorrectly attributed to repeat purchases.
- **Product Appeal:** Analyze the products purchased by new customers. Is there something specific that is driving repeat purchases from this segment?
- **Early Engagement:** Investigate if there are specific onboarding or engagement strategies targeting new customers that are contributing to repeat purchases.

### 2. Optimize the Returning Customer Experience:

- **Personalized Recommendations:** Leverage purchase history and browsing behavior to provide personalized product recommendations.
- **Loyalty Programs:** Implement a robust loyalty program to reward repeat customers and encourage higher AOV.
- **Exclusive Offers:** Offer exclusive discounts or promotions to returning customers to incentivize purchases.
- **Email Marketing:** Send targeted email campaigns with personalized content and offers.
- **Improve Customer Service:** Ensure returning customers have a seamless and positive experience with customer service.

### 3. Address Cart Abandonment for New Customers:

- **Simplify Checkout Process:** Reduce the number of steps, offer guest checkout, and minimize required information.
- **Build Trust:** Display trust signals like security badges, customer reviews, and testimonials.
- **Offer Incentives:** Consider offering a small discount or free shipping to new customers to encourage them to complete their purchase.
- **Abandoned Cart Emails:** Implement targeted abandoned cart emails for new customers, potentially with a stronger incentive.

#### 4. Increase AOV for Returning Customers:

- **Upselling and Cross-selling:** Offer related or complementary products during the checkout process.
- **Bundle Deals:** Create attractive bundle deals to encourage customers to purchase more items.
- **Minimum Purchase Thresholds:** Offer free shipping or discounts for orders above a certain amount.

#### 5. Leverage the High Conversion Rate of New Customers:

- **Scale Acquisition Efforts:** Invest in marketing channels that are effectively driving new customer acquisition.
- **Optimize Landing Pages:** Ensure landing pages are optimized for conversion and provide a seamless user experience.
- **Refine Targeting:** Continuously refine targeting strategies to reach the most relevant audience.

## Step 6: Cross Vertical Analysis

### 6.1 Top 10 Highest Cart Abandonment Rates

Traffic_Source	Campaign	Customer_Type	Cart_Abandonment_Rate
Organic Search	Holiday Offers	New	39.037500
Email Campaign	Weekend Discount	Returning	37.351667
Social Media	Flash Deals	New	36.784615
Organic Search	Flash Deals	New	35.480000
Organic Search	Weekend Discount	New	34.942500
Direct	Weekend Discount	New	34.697143
Social Media	Weekend Discount	New	34.176667
Organic Search	Summer Sale	New	33.568182
Social Media	Flash Deals	Returning	33.505556
Email Campaign	Holiday Offers	New	33.123750

### 6.2 Top 10 Highest Repeat Purchase Rates

Traffic_Source	Campaign	Customer_Type	Repeat_Purchase_Rate
Organic Search	Summer Sale	New	23.424545
Organic Search	Holiday Offers	New	22.795000
Google Ads	Winter Promo	New	21.587692
Organic Search	Weekend Discount	New	20.267500
Direct	Holiday Offers	New	20.079286
Organic Search	Summer Sale	Returning	20.056364
Direct	Flash Deals	Returning	19.996667
Direct	Summer Sale	Returning	19.913636
Direct	Weekend Discount	New	19.877143
Google Ads	Flash Deals	Returning	19.872857

### 6.3 Top 10 Highest Conversion Rates

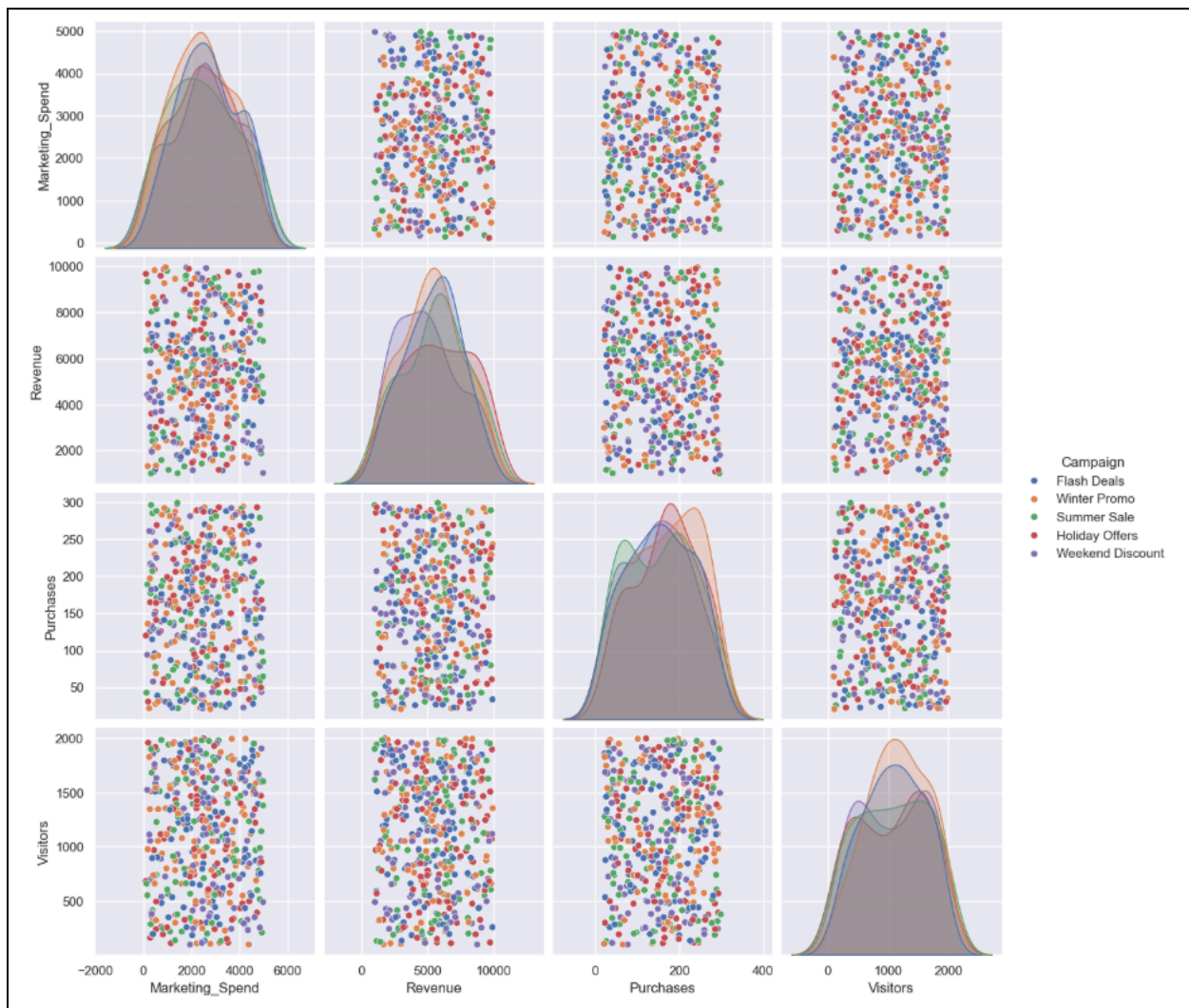
Traffic_Source	Campaign	Customer_Type	Conversion_Rate
Email Campaign	Flash Deals	New	7.633000
Direct	Holiday Offers	New	7.382857
Google Ads	Summer Sale	New	7.034286
Social Media	Winter Promo	New	6.818889
Email Campaign	Holiday Offers	New	6.647500
Google Ads	Weekend Discount	New	6.637500
Social Media	Holiday Offers	New	6.615000
Email Campaign	Summer Sale	New	6.405000
Google Ads	Winter Promo	Returning	6.398000
Social Media	Holiday Offers	Returning	6.365000

### 6.4 Top 10 highest ROI

Traffic_Source	Campaign	ROI
Social Media	Holiday Offers	1.953064
Direct	Holiday Offers	1.765735
Direct	Summer Sale	1.579416
Organic Search	Flash Deals	1.562921
Organic Search	Summer Sale	1.453305
Social Media	Winter Promo	1.330401
Direct	Winter Promo	1.326154
Organic Search	Winter Promo	1.281211
Social Media	Summer Sale	1.273515
Email Campaign	Winter Promo	1.254577

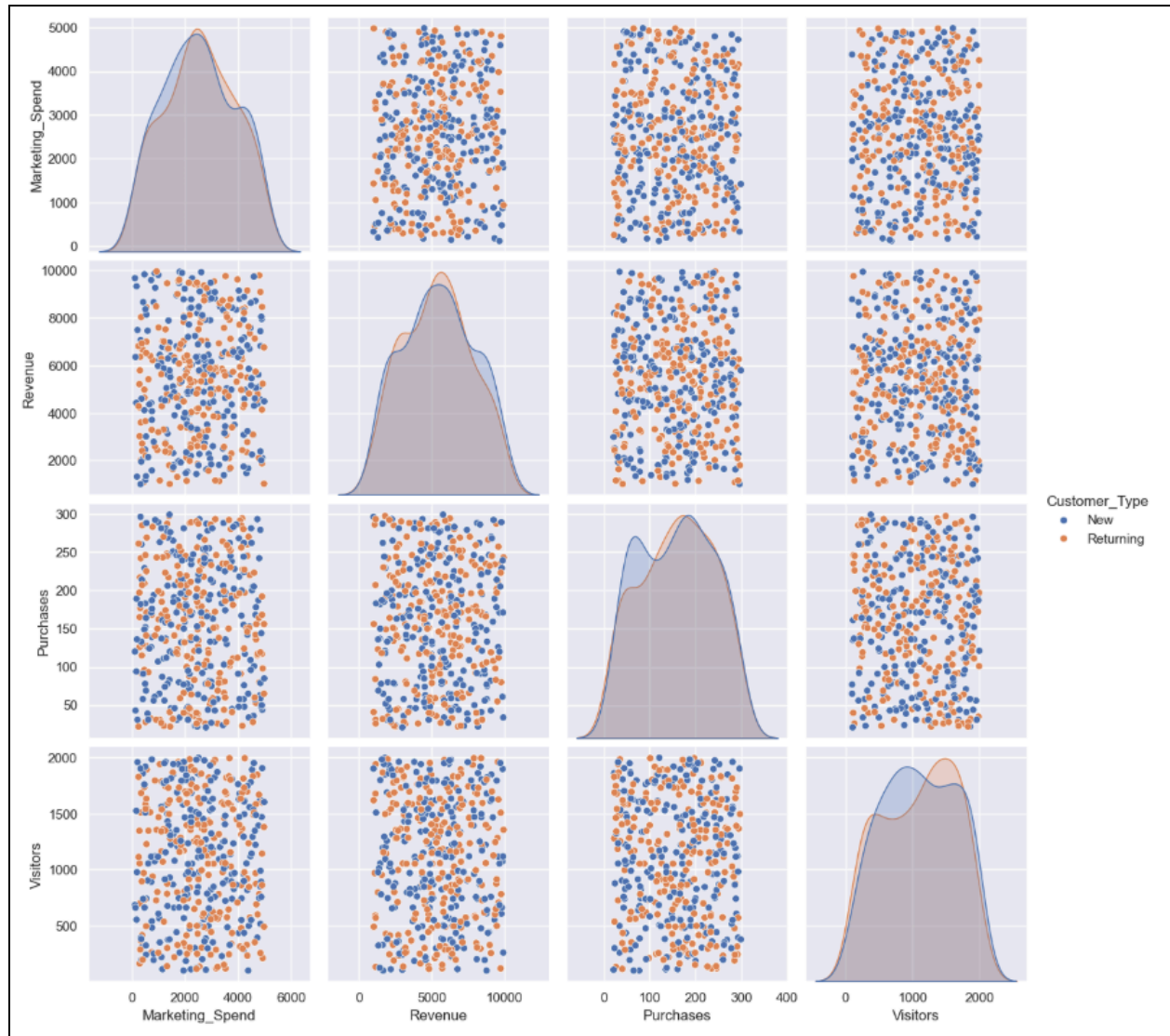
## Step 7: Find Cluster Patterns

### 7.1 Campaign Wise



- There Are No Any Visible Groups.

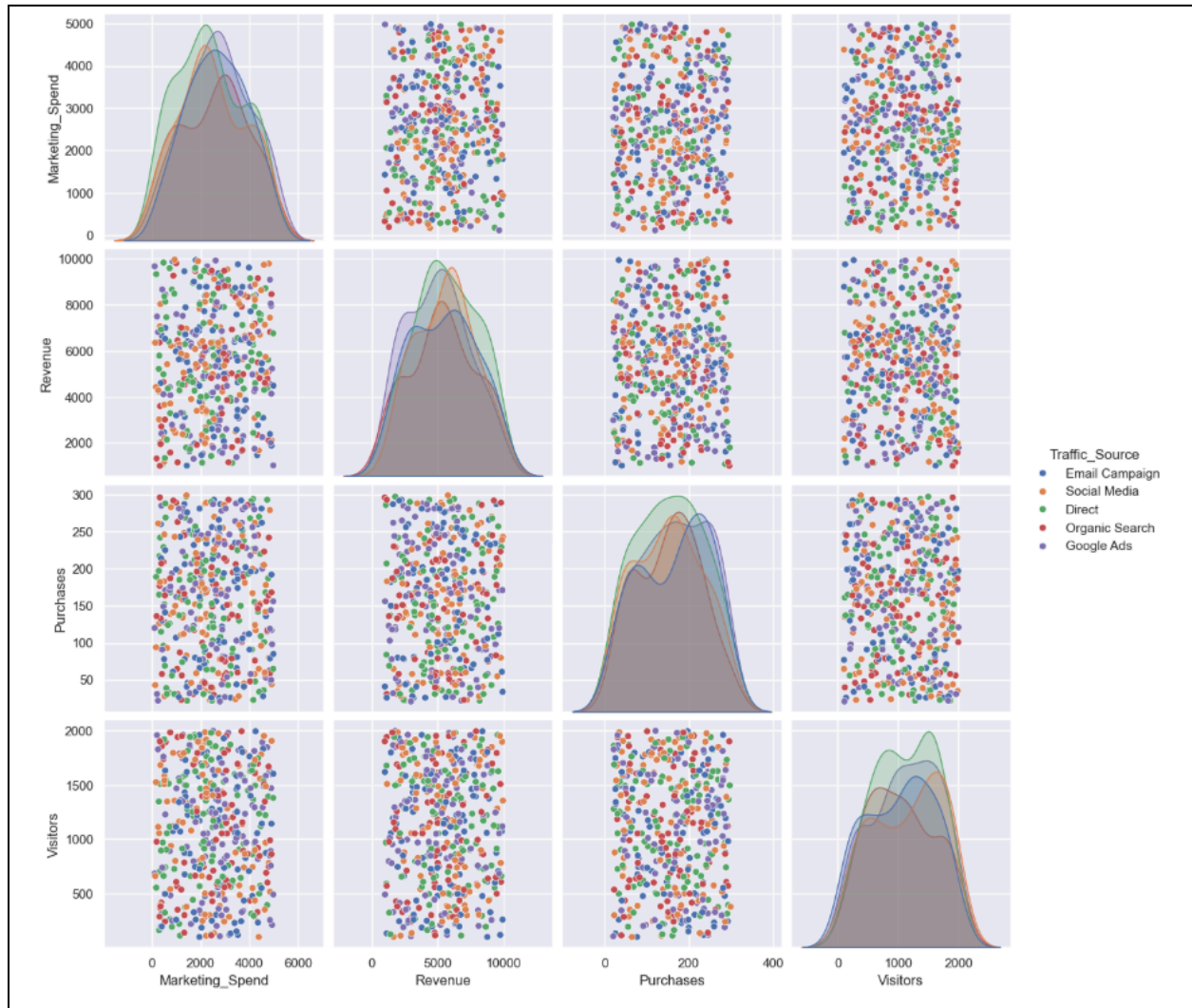
## 7.2 Customer Wise



- There Are No Any Visible Groups.



## 7.3 Traffic Source Wise



- There Are No Any Visible Groups.

## 8. Main Findings and Suggestions

### 8.1 Key Findings:

- **High-Performing Areas:**
  - **Holiday Offers Campaign:** This campaign excels in almost all metrics, indicating a successful strategy.
  - **Direct Traffic:** Direct traffic brings in the most revenue and has a high ROI, suggesting strong brand awareness and customer loyalty.
  - **Email Marketing:** High conversion rate demonstrates effective targeting and messaging.
  - **New Customers:** New customer acquisition is strong, with high conversion rates and ROI.
  
- **Areas for Improvement:**
  - **Weekend Discount Campaign:** Underperforms across the board, needing a revamp in offer, targeting, and messaging.
  - **Google Ads:** Low ROI despite significant spend suggests inefficient targeting or ad creatives.
  - **Cart Abandonment:** Consistently high across all channels and customer types, indicating a critical checkout process issue.
  - **Returning Customer Engagement:** Lower repeat purchase rate and AOV compared to new customers signal a need for better retention strategies.

### 8.2 Targeted Suggestions:

#### 1. Replicate Holiday Offers Success:

- Analyze the Holiday Offers campaign in detail: What specific products, discounts, or messaging resonated most? Which channels drove the best results?
- Apply these learnings to other campaigns, especially the Weekend Discount campaign. Consider testing similar offers, creatives, and targeting strategies.

## 2. Double Down on Direct Traffic:

- Since direct traffic is already strong, focus on initiatives that further capitalize on it:
  - **Referral programs:** Incentivize existing customers to refer friends.
  - **Brand building content:** Create high-quality content (blog posts, videos, etc.) that establishes the brand as an authority and encourages direct visits.
  - **Optimize website for brand-related keywords:** Improve SEO for searches directly related to the brand name.

## 3. Fix the Checkout Process:

- This is a priority as high cart abandonment affects all areas.
- Conduct user testing to identify pain points in the checkout process.
- Consider A/B testing different checkout flows, payment options, and form fields.
- Ensure clear communication of shipping costs, return policies, and security measures.

## 4. Re-engage Returning Customers:

- Implement a tiered loyalty program with exclusive benefits for higher tiers.
- Use customer data to personalize product recommendations and email offers.
- Create targeted email campaigns based on past purchase behavior.
- Consider offering a "welcome back" discount or exclusive early access to sales for lapsed customers.

## 5. Optimize Google Ads with a Focus on ROI:

- Conduct thorough keyword research to identify high-converting, lower-competition keywords.
- Improve ad quality and relevance to increase Quality Score and reduce costs.
- Implement conversion tracking to accurately measure campaign performance.
- Experiment with different ad formats and bidding strategies.
- Consider using audience targeting options to reach specific customer segments.

**6. Maximize Email Marketing Potential:**

- Segment email lists based on customer behavior and preferences.
- Personalize email content and offers based on segment data.
- A/B test different subject lines, email designs, and call-to-actions.
- Automate email sequences for welcome series, abandoned carts, and post-purchase follow-ups.

**7. Monitor New Customer Behavior Closely:**

- Continue tracking the unusually high repeat purchase rate for new customers.
- If the trend continues, analyze their behavior and purchase patterns to identify potential insights and opportunities.