

# Data Analysis Report



[click for the code](#)



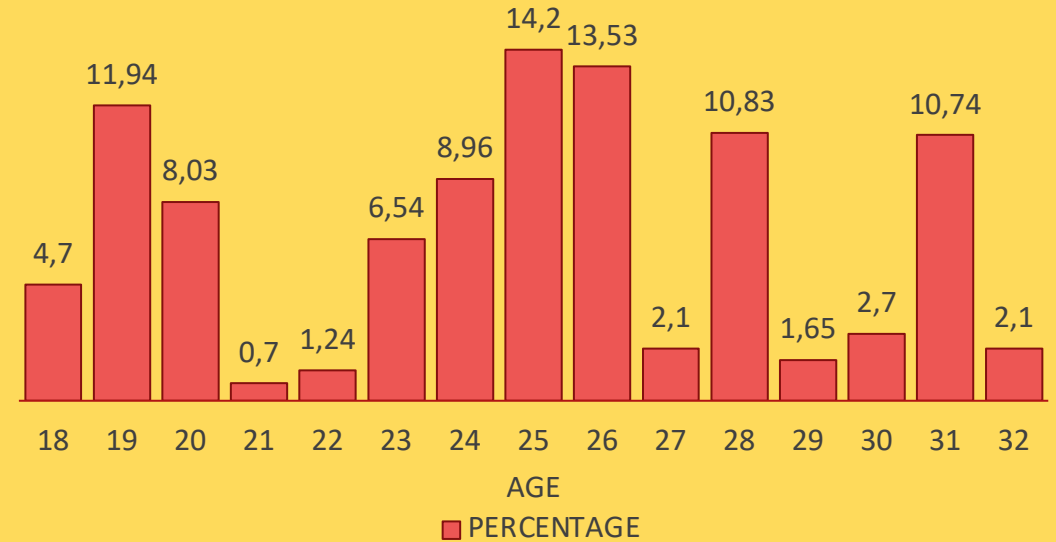
# Demographic Insights

## Gender distribution



We can see that the majority of customers identify as **female (%85)**, accounting for a larger portion of the customer base. The **male (%15)** segment, while smaller, still represents a notable proportion of customers. This gender distribution information can be crucial for tailoring marketing strategies, product offerings, and customer experiences to meet the preferences and needs of different gender groups.

## Age distribution



There is a clear trend in user age distribution. The largest age groups are users in their **mid-20s** to **early 30s**, specifically ages **25** and **26**. This points to a significant portion of our user base falling within this range.

The website also attracts users aged **19**, **28**, and **31**, who make up substantial segments of the user population. These age groups present opportunities for targeted engagement and tailored content.



# Customer Interaction Analysis

# Distribution of Events

## by day

### Event Trends:

The "Cart" and "Purchase" events show fluctuating patterns, but generally, they follow a similar trajectory with some variations.

### Peaks and Dips:

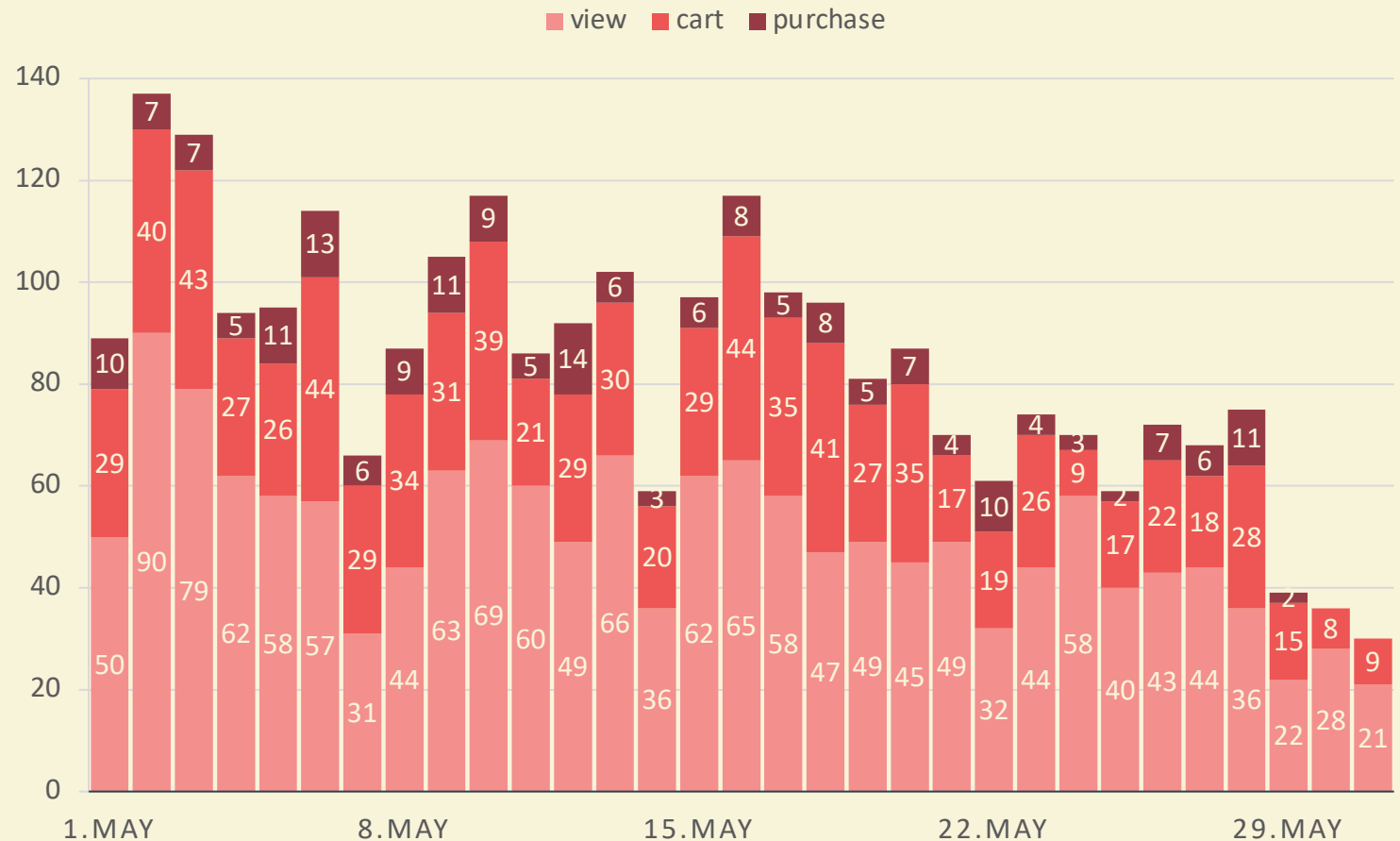
Notable spikes in the "View" event occur on specific days, such as May 2nd, 5th, 6th, and 16th, suggesting increased interest in product exploration on these days.

Similarly, there are instances of higher "Cart" and "Purchase" events on days when "View" events are also elevated.

### Behavioral Insights:

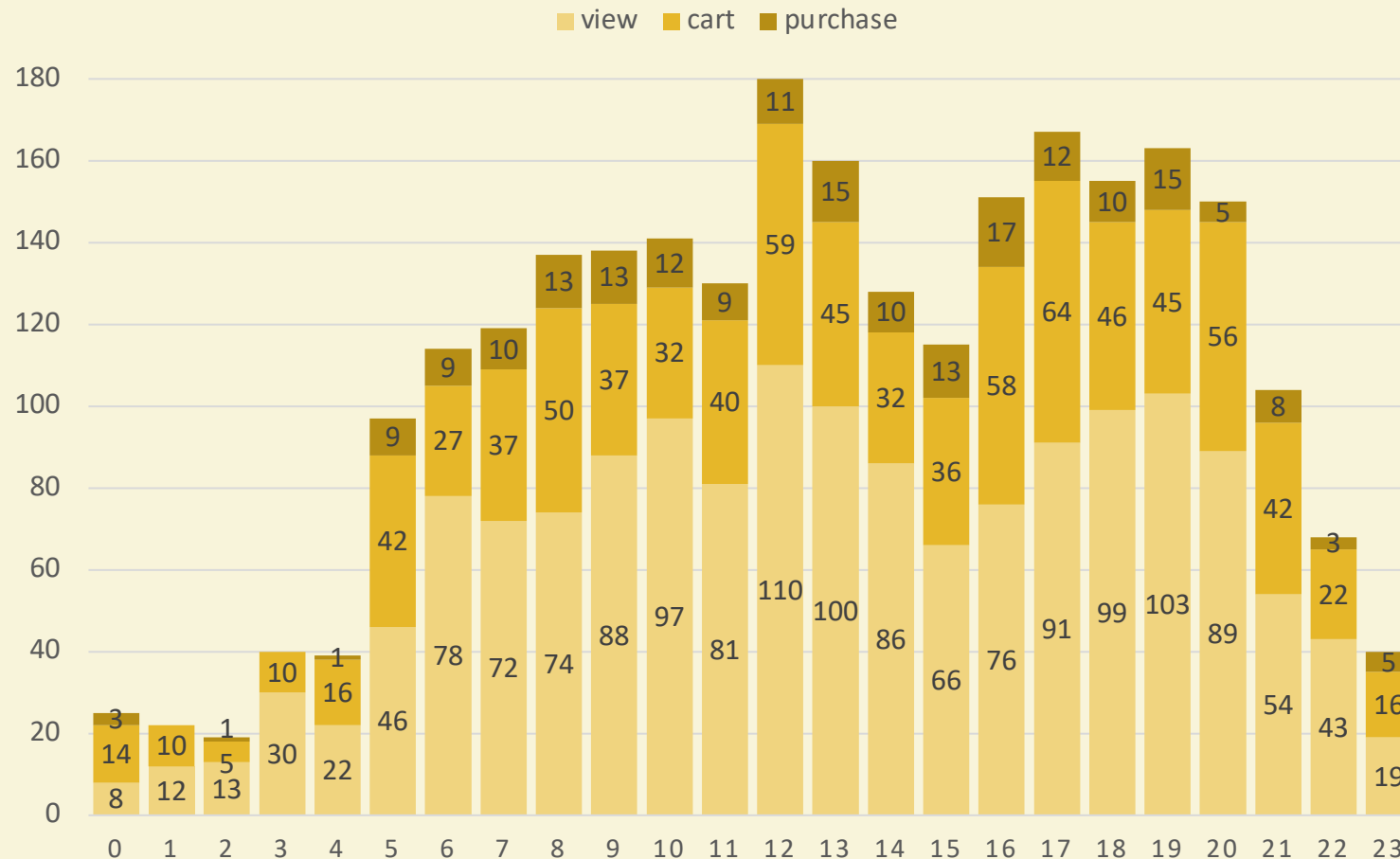
On some days, the "Cart" events do not necessarily result in a "Purchase," suggesting potential areas for optimization in the conversion process.

The last two days of the month (May 30th and 31st) show a drop in "Purchase" events, which might warrant further investigation.



# Distribution of Events

## by hour



### Event Patterns:

Engagement activities vary significantly by hour, with distinct patterns of "Cart," "Purchase," and "View" events.

### Morning Engagement:

Engagement starts off relatively low during the early hours (00 to 05), with gradual increases in "Cart," "Purchase," and "View" events.

### Peak Engagement Hours:

Engagement peaks during the mid-morning to early afternoon hours (06 to 15), with substantial numbers of all event types, indicating active product exploration and purchasing.

### Afternoon Engagement:

Engagement remains relatively stable during the afternoon hours (16 to 18), suggesting continued interaction with the platform.

### Evening Engagement:

Engagement experiences a slight dip in the late afternoon and evening hours (19 to 21) before dropping significantly during the late hours (22 to 23).

### Event Patterns:

Early to mid-week, particularly on Tuesday and Wednesday, experiences the highest engagement levels across all event types, with peak activities driven by active product exploration and potential purchases.

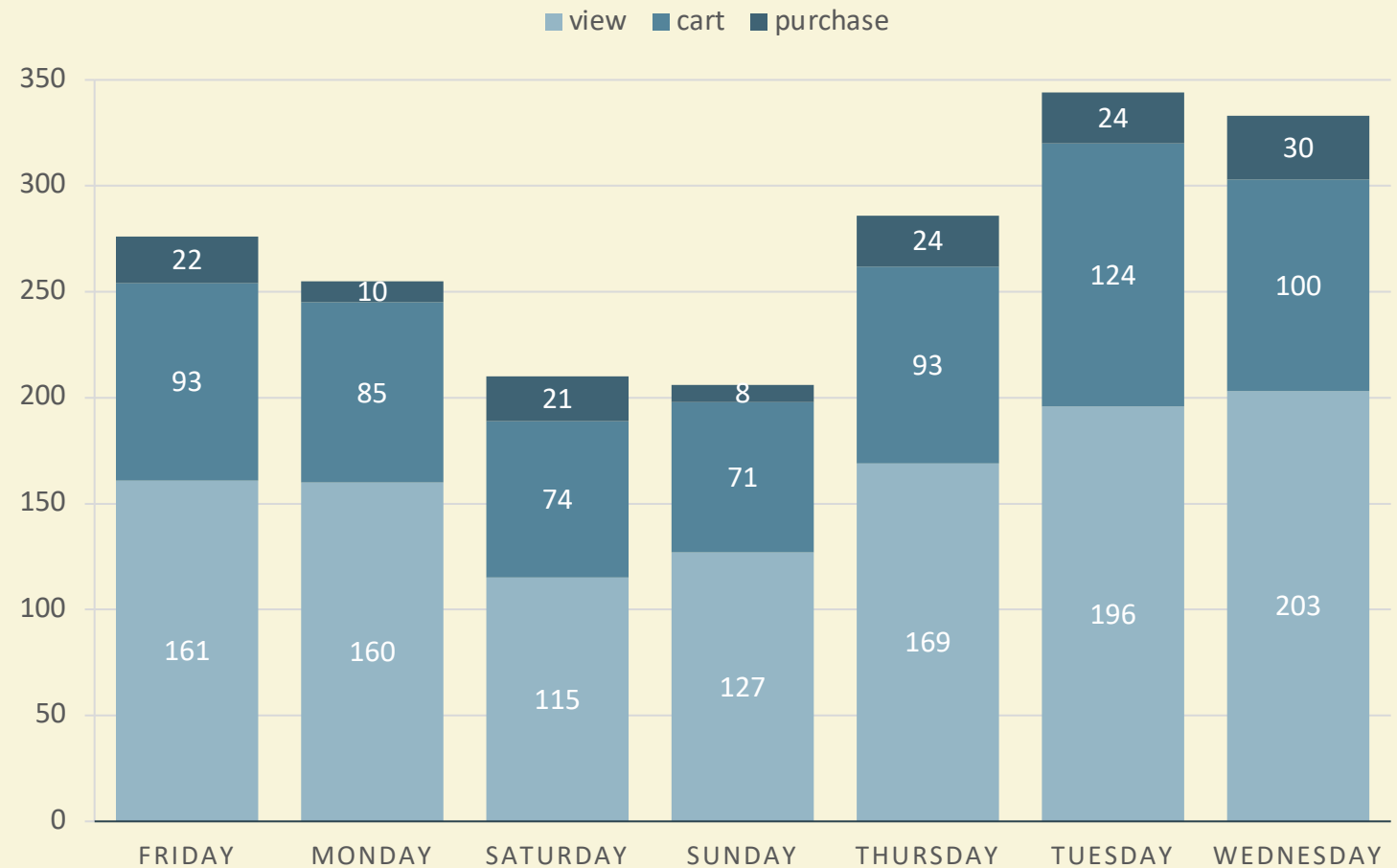
### Engagement Trends:

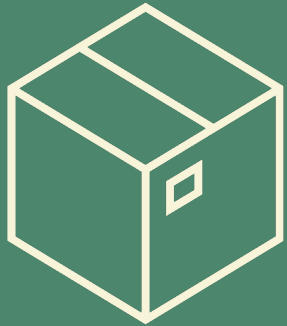
Early to mid-week (Monday to Wednesday) demonstrates the highest engagement levels across all event types. Tuesday and Wednesday emerge as peak engagement days, likely driven by consumers' active exploration of products and potential purchases.

### Weekend Engagement:

The weekend (Saturday and Sunday) showcases relatively lower engagement, possibly due to consumers' relaxation and reduced online activity.

# Distribution of Events by week





# Product Preferences



# Purchased Product Categories

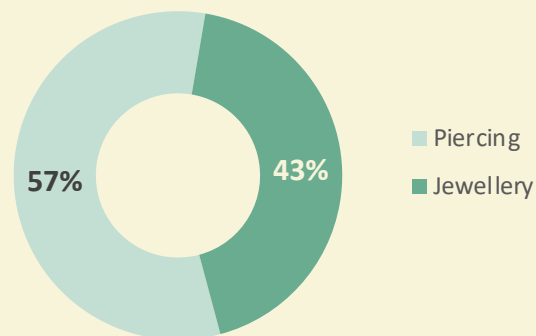
## Price Groups

**Main Categories:** We can see that the Piercings category has a higher number of purchased products compared to the Jewellery category. This might indicate that piercings are currently more popular or in demand among customers.

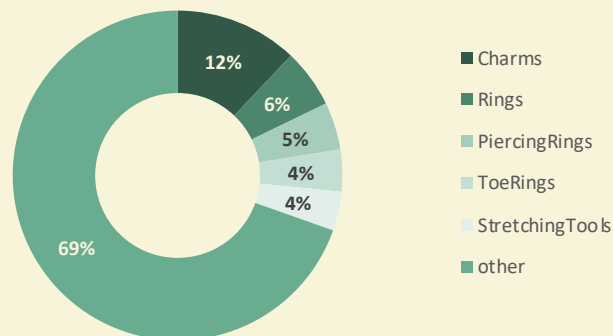
**Sub-Categories:** The top-selling sub-categories are Charms and Rings, which indicate strong customer interest. Sub-categories like Nose Jewellery & Septums and Anklets have lower sales, potentially due to niche appeal.

**Price Groups:** The €30-40 price range stands out as the most popular choice among customers, followed by €20-30 and €0-5 ranges. Higher-priced products (€50+) also have reasonable sales.

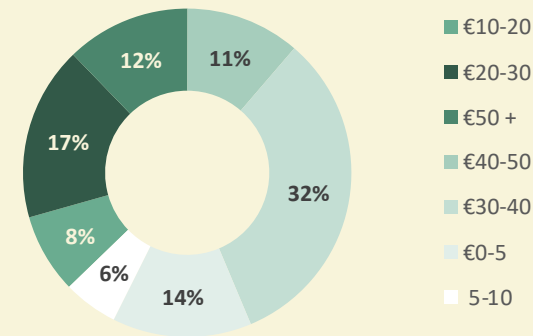
### Main Categories

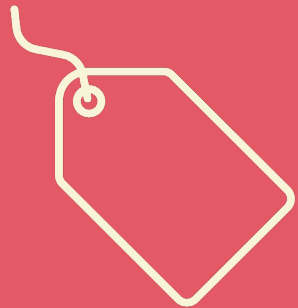


### Sub-Categories



### Price Groups

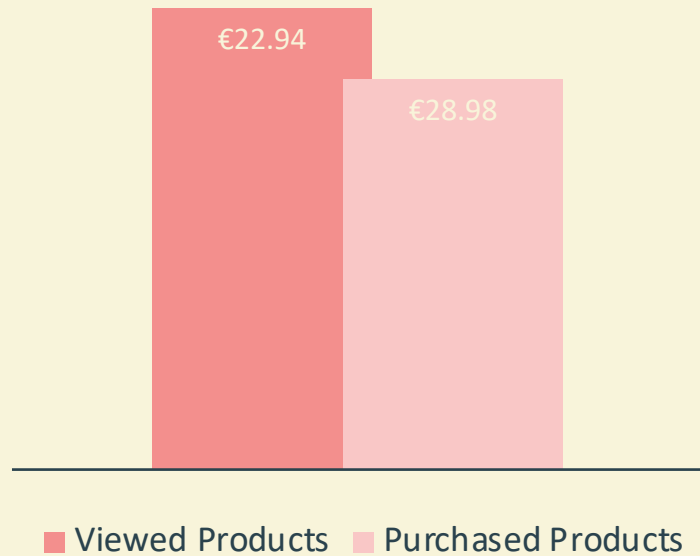




# Pricing Analysis

# Average Prices

## viewed x purchased products



### Average Price of Viewed Products:

This value represents the average price of all products that customers have viewed on your e-commerce platform. It indicates that, on average, customers are engaging with products that are priced at €22.94.

### Average Price of Purchased Products:

This value represents the average price of products that customers have not only viewed but actually purchased. It indicates that customers are spending an average of €28.98 on products they decide to buy.

Comparing these averages, it appears that customers are spending more on the products they purchase compared to the products they merely view. This difference might suggest that customers are more willing to invest in higher-priced items when making a purchase decision.

# Average Prices

## genders x main categories

The chart offers insights into the average prices of purchased products based on both gender and main categories.

From this chart, it's evident that both female and male customers spend more on jewelry products compared to piercing products. Additionally, female customers generally spend more than male customers on both jewelry and piercing items.





## Average Prices

### Age groups x main categories

The chart offers insights into the average prices of purchased products based on both age groups and main categories.

Generally, customers tend to spend more on jewellery products as they get older, with the highest average price observed in the "30+" age group for both jewellery and piercing products.

The 18 to 20-year-old age group has a slightly higher average price for piercing products compared to jewellery, while this pattern reverses in the 20 to 25 age group.

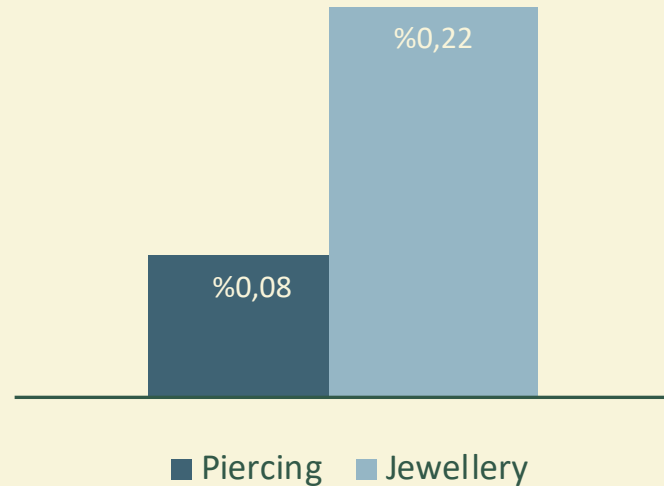
Overall, older customers are willing to invest more in both jewellery and piercing products compared to younger age groups. Based on these insights, you can tailor your marketing strategies and product offerings to cater to the spending patterns of different age groups. For instance, promoting higher-priced jewellery options to older customers or highlighting certain piercing products to younger customers might be effective strategies.



# Purchase Analysis

# Conversion Rate

viewed x purchased product categories



This chart delves into the conversion rates between two main categories, **Jewellery** and **Piercings**.

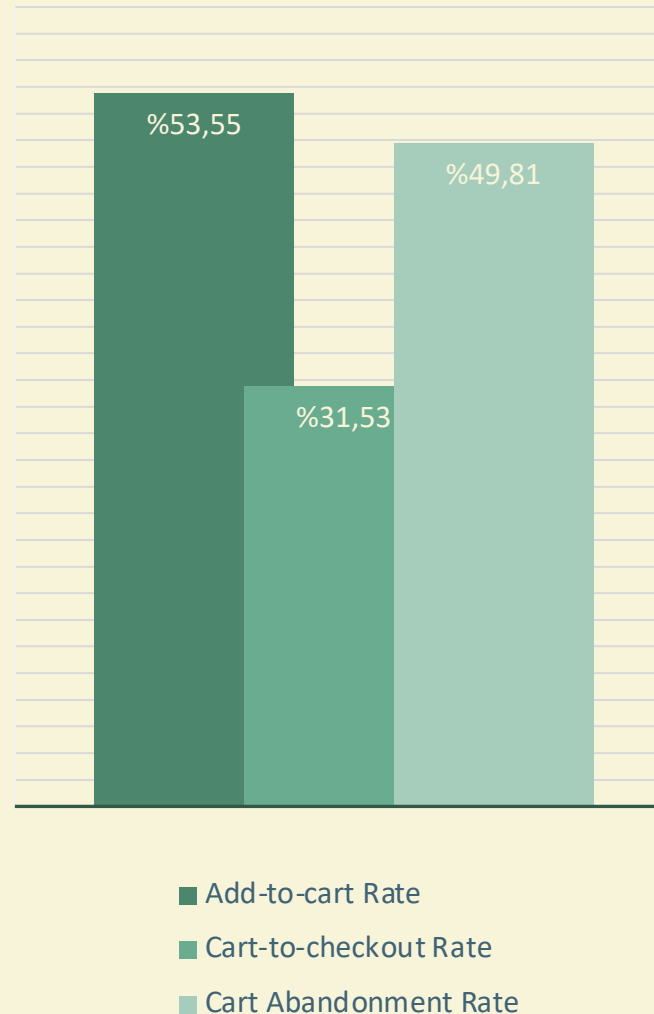
The high conversion rate for the **Jewellery** category indicates that this category resonates well with customers, driving more purchases per view.

The lower conversion rate for the **Piercings** category suggests potential areas for improvement in terms of attracting more conversions from views.

# Cart Behavior Insights

## Add-to-cart Rate (ATCR):

The ATCR signifies that over half of the visitors who view products are compelled to add them to their carts, indicating a strong initial interest in the offerings. This metric highlights successful product presentation and the appeal of the items to a significant portion of the audience.



## Cart-to-checkout Rate (CTCR):

The CTCR reveals that approximately one-third of users who add products to their carts proceed to the checkout stage, displaying a willingness to commit to a purchase.

The conversion from cart to checkout indicates that customers find the checkout process relatively user-friendly and valuable enough to complete.

## Cart Abandonment Rate (CAR):

The CAR is substantial, indicating that a significant percentage of users who reach the cart stage do not proceed to the checkout, representing a lost opportunity for conversions.

The high abandonment rate necessitates an exploration of potential friction points, distractions, or concerns that prevent users from completing their purchases.



# Customer Loyalty & Repeat Transactions

**Returning Customer Rate: 12.43%**  
**Average Time Between Repeat Transactions : 1.49 days**

The remarkably short time span between repeat transactions underscores the frequency at which customers return to make additional purchases.

This metric suggests a strong level of engagement and interest, as customers are actively and consistently engaging with your products.

The Returning Customer Rate represents the proportion of customers who return for subsequent purchases after their initial interaction with the platform.

The rate of 12.43% indicates a subset of customers who find enough value to return, contributing to a healthy retention rate.