

Business Problem

The primary objectives of this influencer campaign, run by Decathlon's Domyos brand, were:

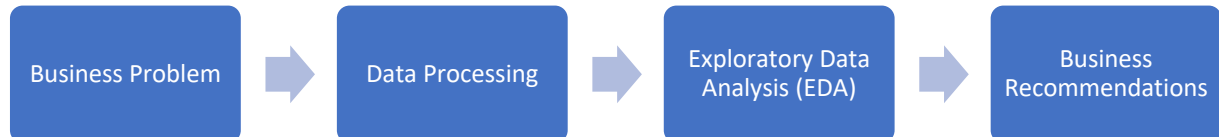
- To rejuvenate its customer base by attracting Generation Z customers.
- To assess the profitability of the campaign.

The aim was to use influencer marketing, specifically a live Instagram session by fitness influencer Sissy Mua, to appeal to younger audiences and increase Generation Z engagement with Decathlon's Cardio Fitness products.

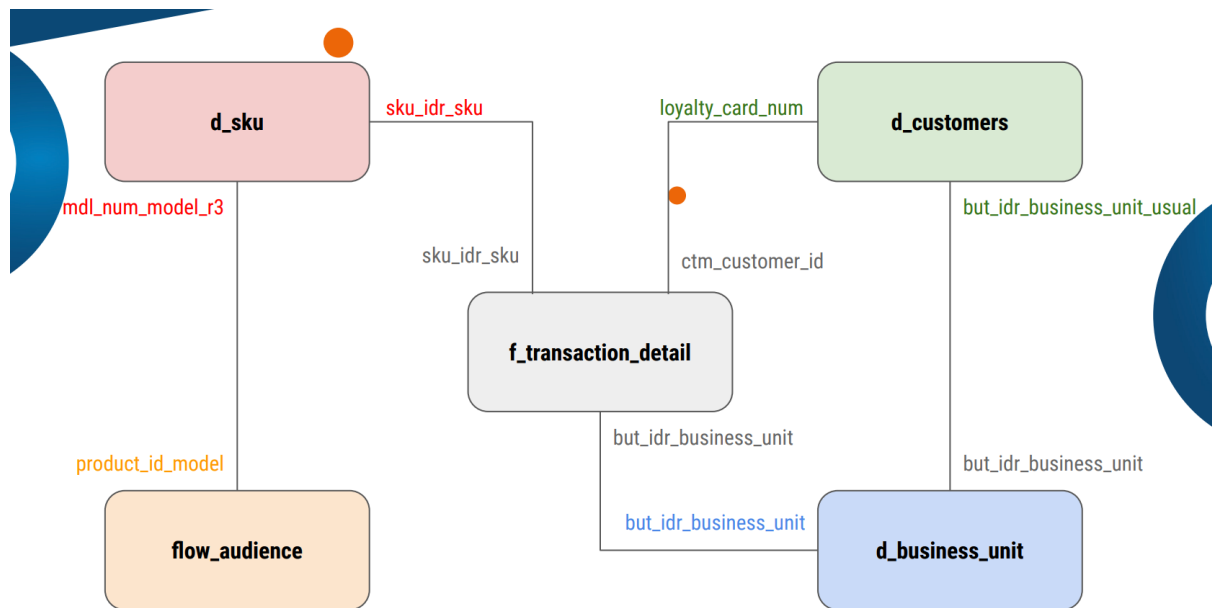
Key questions to address:

- Was the target of recruiting more Generation Z customers achieved?
- Was the campaign profitable for Decathlon?

Business Intelligence Solution



The Business Intelligence Solution framework shown here consists of four key steps: Business Problem, Data Processing, Exploratory Data Analysis (EDA), and Business Recommendations. It begins with identifying the Business Problem, which in this case is understanding the effectiveness of a campaign in reaching Generation Z customers and assessing its profitability. Next, Data Processing involves preparing and filtering data across multiple datasets, focusing on relevant model and SKU codes to ensure only the campaign-specific data is analyzed. In the EDA phase, we analyze customer demographics, purchasing behavior, and product performance to uncover insights on engagement and sales trends. Finally, Business Recommendations are derived from the insights gained, guiding strategic decisions for future campaigns to enhance customer targeting, particularly in the female sportswear market. This structured approach ensures a data-driven solution to the business problem.



```

model_codes_of_interest = [7635140, 5015822, 7166996, 2486222]
sku_codes_of_interest = [
    7446648, 7448829, 7458761, 7449633, 7450422, 7461697, 7452235, 7452821,
    7463948, 7458509, 7467777, 7463476, 7455608, 7458813, 7452661, 7457374,
    7468857, 7467008, 7460340, 7448470, 7449064, 7442821, 7455088, 7457353, 7451543
]

# Creating a new column for hierarchical relationship between model and SKU
# This ensures that each SKU is recognized as a subcode of its mdl_num_model_r3
sku_model_mapping = {
    7635140: [7446648, 7448829, 7458761, 7449633, 7450422, 7461697, 7452235],
    5015822: [7452821, 7463948, 7458509, 7467777, 7463476],
    7166996: [7455608, 7458813, 7452661, 7457374, 7468857, 7467008],
    2486222: [7460340, 7448470, 7449064, 7442821, 7455088, 7457353, 7451543]
}

# Filtering dataset to include only the specific SKUs under their respective model codes
df_sku_filtered = df_sku[(df_sku['mdl_num_model_r3'].isin(model_codes_of_interest)) & (df_sku['sku_idr_sku'].isin(sku_codes_of_interest))]
df_transaction_detail_filtered = pd.merge(df_transaction_detail, df_sku_filtered, on='sku_idr_sku', how='inner')

# Adding a new column to indicate the hierarchical mapping of SKU to Model
# This ensures that each SKU is associated with its model code explicitly in the merged dataset
df_transaction_detail_filtered['mdl_num_model_r3'] = df_transaction_detail_filtered['sku_idr_sku'].map(
    {sku: model for model, skus in sku_model_mapping.items() for sku in skus}
)

# Merge datasets to create a comprehensive dataset for analysis
# Merging transaction details with customer information
merged_df = pd.merge(df_transaction_detail_filtered, df_customers, left_on='ctm_customer_id', right_on='loyalty_card_num', how='left')

```

Data Processing

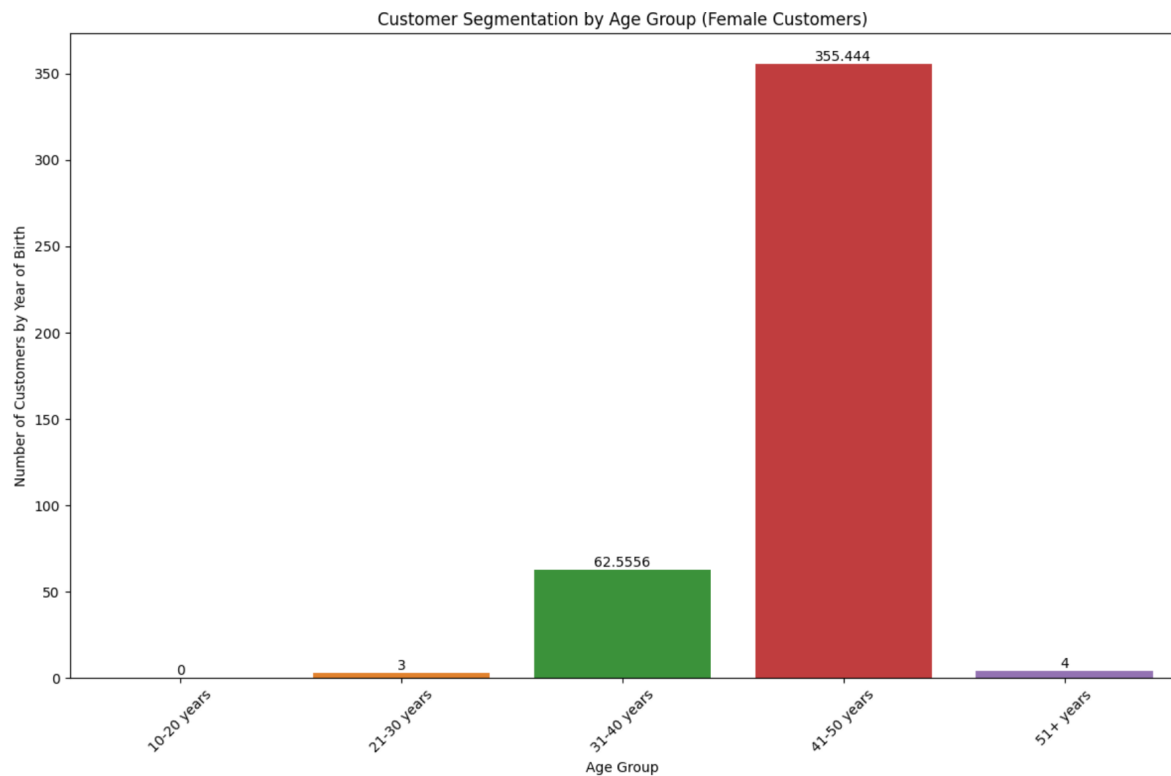
To conduct a focused analysis, we utilized five key datasets: `d_customers`, `flow_audience`, `d_business_unit`, `d_sku`, and `f_transaction_detail`. These datasets provided customer demographics, product interactions, store information, SKU-level product details, and transaction data. We narrowed down our scope by filtering for specific model codes (7635140, 5015822, 7166996, 2486222) representing the main products in the campaign—leggings, bra, t-shirt, and shoes. Each model code is associated with specific SKUs, creating a hierarchical structure that links SKUs as subcategories within their primary models. By merging filtered SKU and transaction data with customer information, we formed a comprehensive dataset that

enables targeted analysis of customer engagement and purchasing patterns within the female sportswear market, providing insights into the campaign's impact on this audience segment.

Exploratory Data Analysis (EDA)

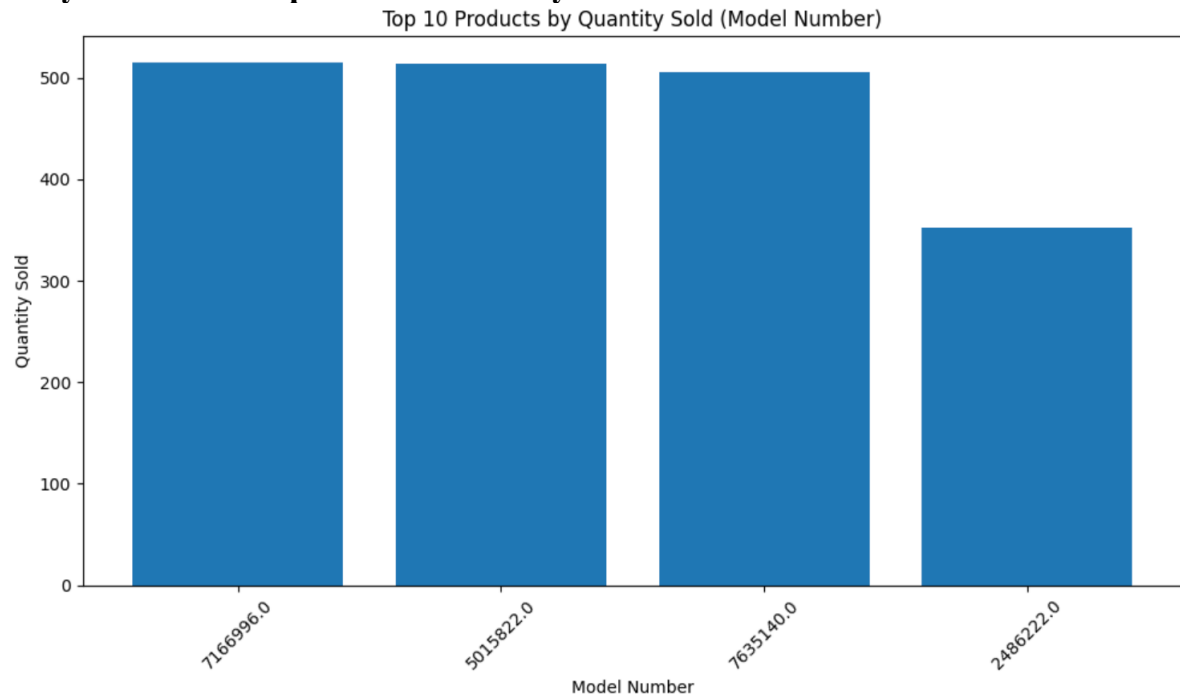
In the **Exploratory Data Analysis (EDA)** phase, we examined the filtered dataset to uncover patterns and trends related to customer demographics, purchasing behavior, and product popularity within the female sportswear market. By segmenting customer data by age and gender, we identified the dominant customer profiles and evaluated the effectiveness of the campaign in reaching its intended Generation Z audience. Sales data analysis by product type (leggings, bra, t-shirt, and shoes) and transaction status helped us understand product performance and customer satisfaction. We also analyzed transaction channels (online vs. offline) and device usage to assess digital engagement, with mobile devices showing a strong presence, reflecting current shopping trends. These insights provide a foundational understanding of customer interactions and purchasing behavior, enabling data-driven recommendations for future campaigns.

Analysis 1: Group customers by age, and gender for customer segment analysis



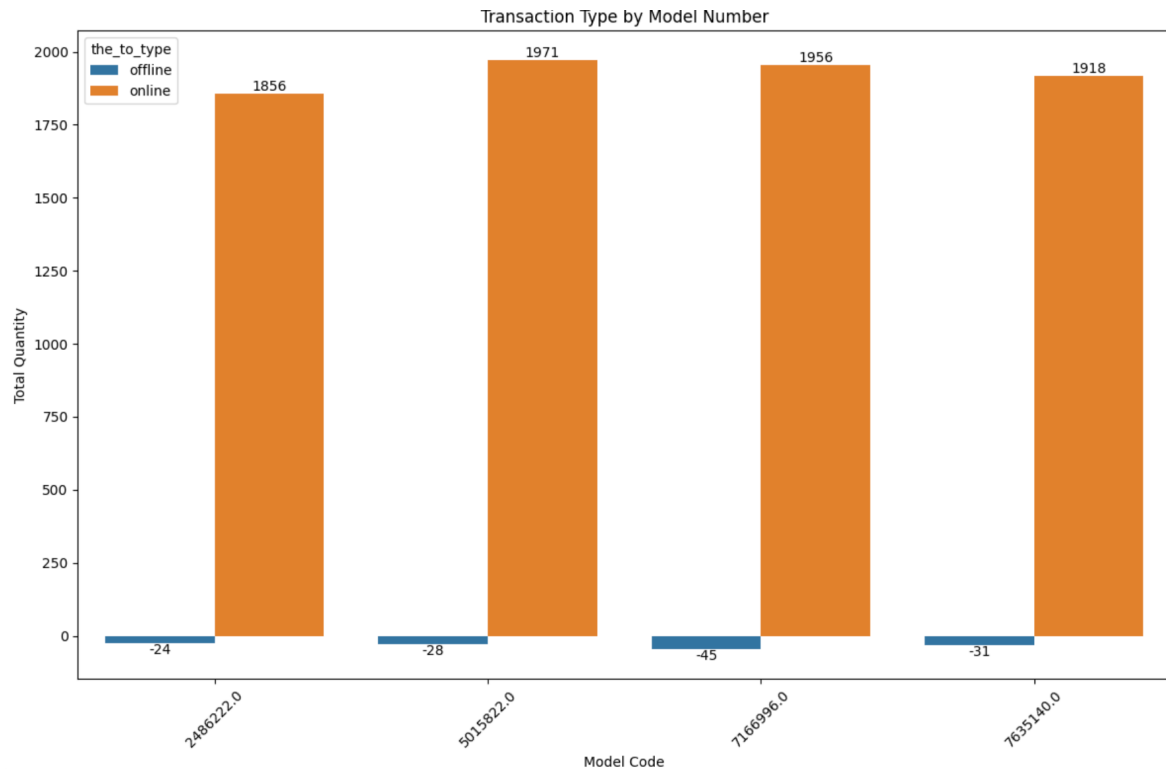
The age distribution graph shows that the 41-50 age group forms the majority of female customers, while younger age segments, including Generation Z, are underrepresented. In the female sportswear market, especially for items like leggings and sports bras, younger audiences tend to be trendsetters. This age disparity suggests an opportunity to further engage younger female customers, who are often more influenced by social media trends and activewear fashion. Tailoring marketing efforts towards Generation Z and younger millennials through trend-focused campaigns and influencer partnerships could help brands attract a younger demographic that is more likely to embrace athleisure as both activewear and casual wear.

Analysis 2: Product performance analysis



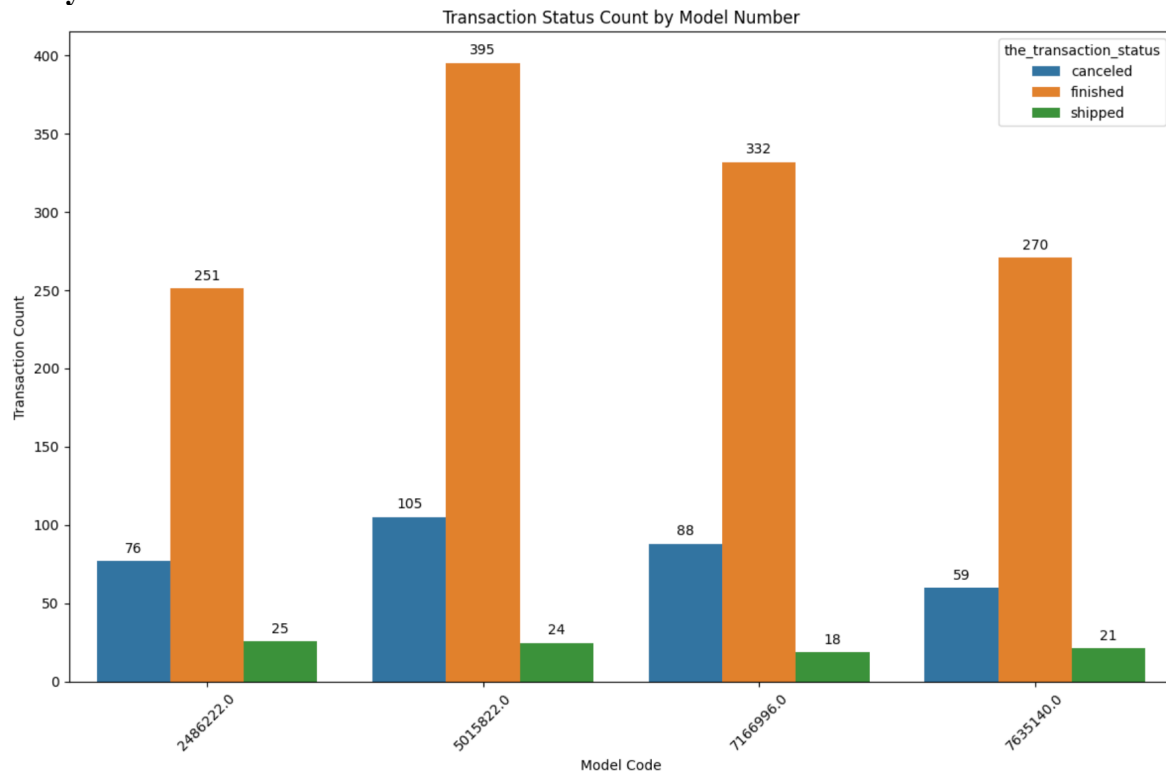
This bar chart indicates that the campaign's featured products (leggings, bra, t-shirt, and shoes) had high sales quantities, confirming their appeal. In the women's sportswear market, leggings and sports bras are often staples due to their versatility and comfort, both for workouts and everyday wear. The strong sales suggest that the product selection resonated with consumers, likely due to effective positioning by influencers. This aligns with the broader trend in women's activewear, where specific items like leggings and sports bras have become essentials in many women's wardrobes, blending functionality with fashion.

Analysis 3: Transaction Types and Status Visualization



The chart illustrates that almost all transactions occurred online, with very few in physical stores. For female sportswear, online shopping offers distinct advantages such as variety, ease of comparison, and access to reviews. This aligns with the broader trend where female consumers, particularly those purchasing sports bras and leggings, favor digital channels. With online sales dominating, there is an opportunity to enhance the online shopping experience further, potentially through virtual try-ons, detailed size guides, or targeted promotions to boost conversion rates for high-demand items like leggings and sports bras.

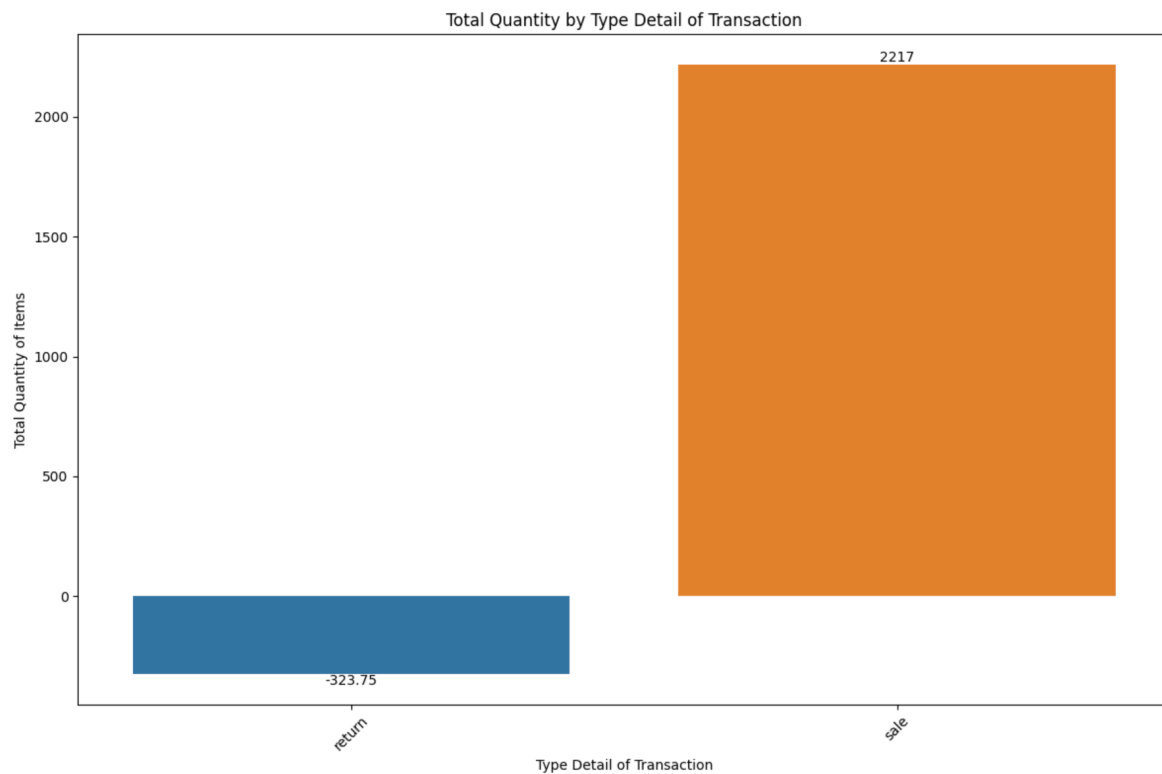
Analysis 4: Transaction Status Visualization



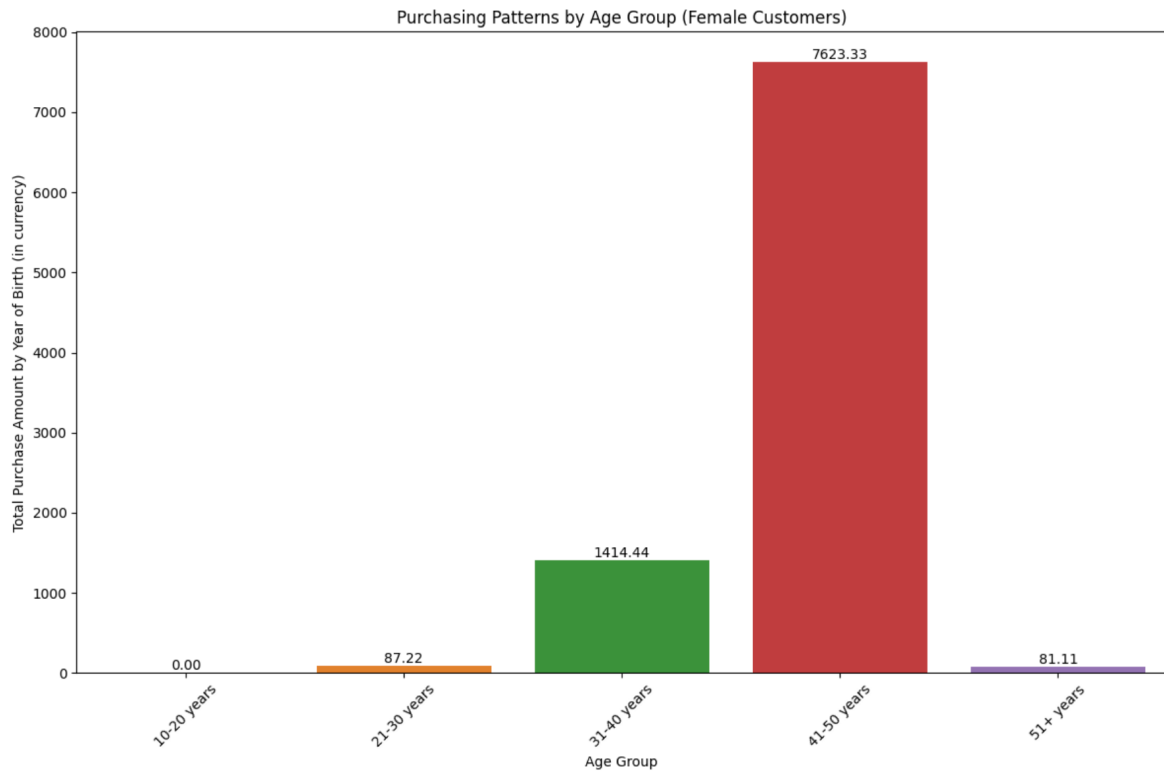
This graph shows the transaction status count (canceled, finished, and shipped) for each model code: 2486222 (shoes), 5015822 (bra), 7166996 (leggings), and 7635140 (t-shirt). Across all products, the "finished" status has the highest transaction count, indicating successful completion of most transactions. The shoes and bras have particularly high finished transaction counts at 251 and 395, respectively. However, there are also notable cancellation counts for each product, especially the bra, with 105 canceled transactions. The "shipped" status, which represents transactions in transit or awaiting final delivery, has the lowest count across all products.

For the case study, these findings highlight a generally positive response to the campaign, as most transactions were completed successfully, suggesting customer satisfaction with the promoted items. However, the higher cancellation rates for specific products like the bra indicate potential issues with customer expectations or sizing that Decathlon could investigate further. To improve customer experience, Decathlon may consider enhancing product descriptions, providing detailed size

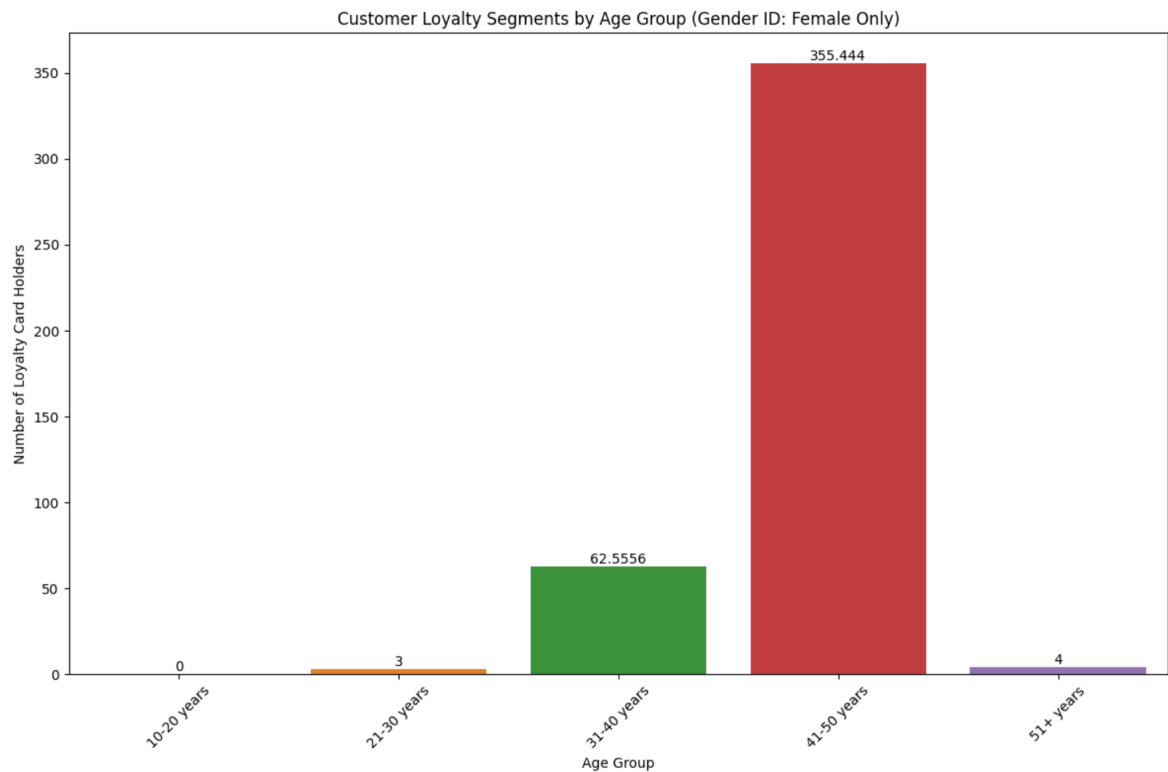
guides, or gathering feedback on canceled orders to address possible concerns. Ensuring high completion rates and minimizing cancellations will reinforce customer trust and optimize the effectiveness of future campaigns.



The bar chart shows a high number of sales transactions compared to a minimal number of returns. This suggests that customers were generally satisfied with their purchases, a critical factor in the female sportswear market where fit and comfort are essential. For items like sports bras and leggings, reducing returns often involves accurate sizing information and quality assurances. This positive sale-to-return ratio reflects a well-managed campaign with quality control measures that meet consumer expectations in the competitive women's activewear market.

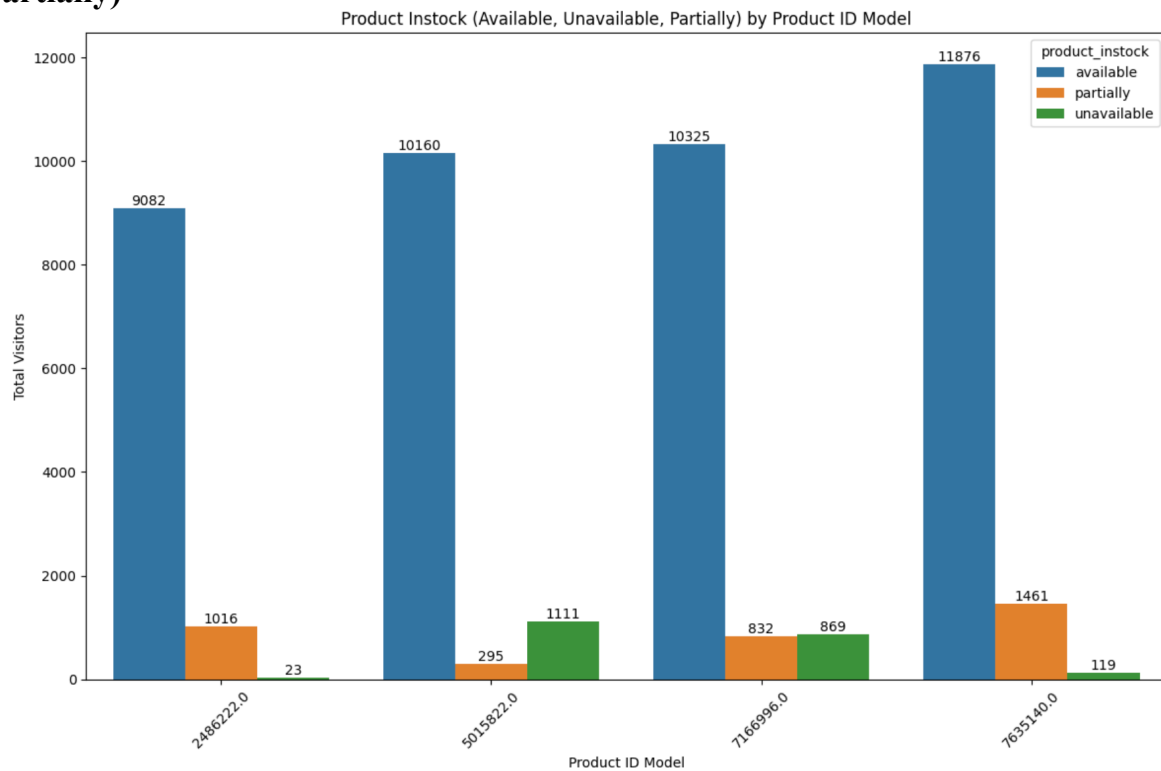


The purchasing pattern graph indicates that spending was highest among the 41-50 age group, with minimal expenditure from Generation Z. In the current market, younger women are often the most responsive to influencer marketing, particularly for athleisure items like leggings and sports bras. This suggests a missed opportunity, as Generation Z generally follows activewear trends closely. Tailoring campaigns to target younger female customers could potentially boost sales by leveraging social media platforms and influencers popular among this demographic to increase engagement with trend-driven products.



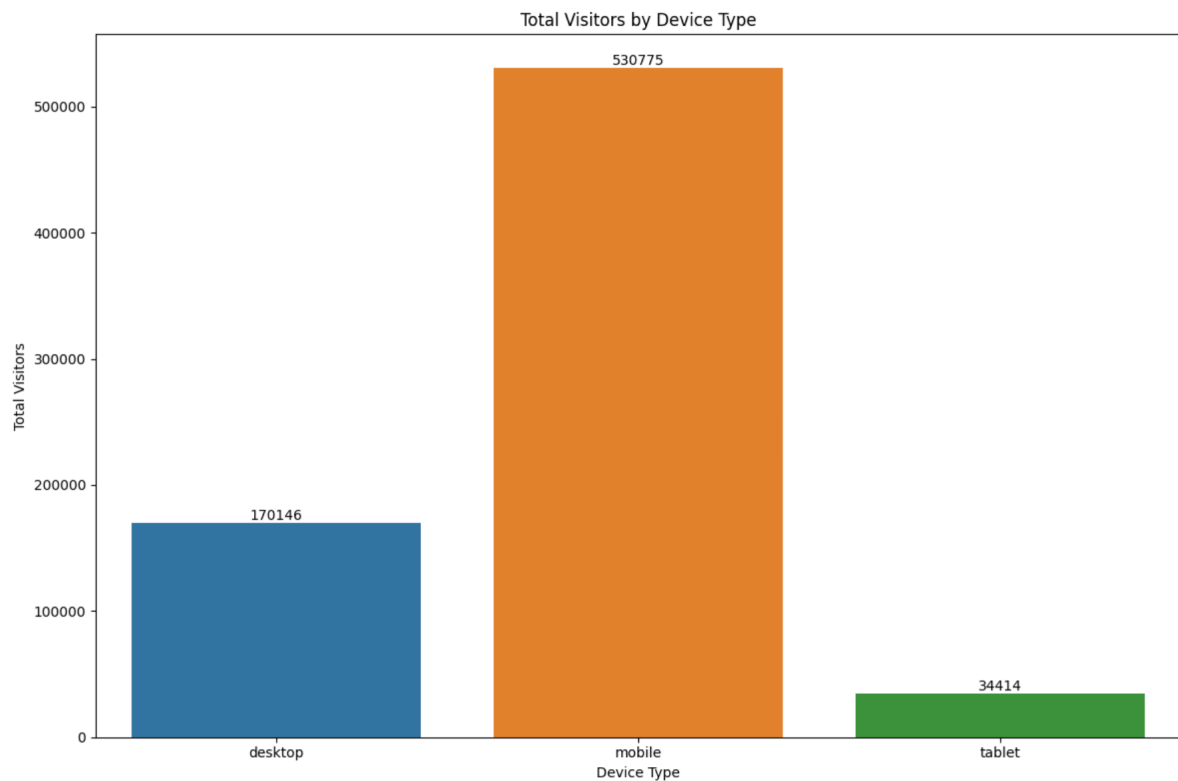
The chart shows loyalty card ownership, primarily concentrated in the 41-50 age group, with limited engagement from younger female customers. In the sportswear market, younger customers are increasingly seeking brands that align with their values, such as sustainability or unique experiences. Loyalty programs that cater to these preferences, with perks that appeal to Generation Z's interests, could increase brand loyalty. Engaging younger customers with loyalty initiatives that reward regular purchases of popular items like leggings and sports bras can help build a more diversified customer base.

Analysis 5: Product Instock by Product ID Model (Available, Unavailable, Partially)



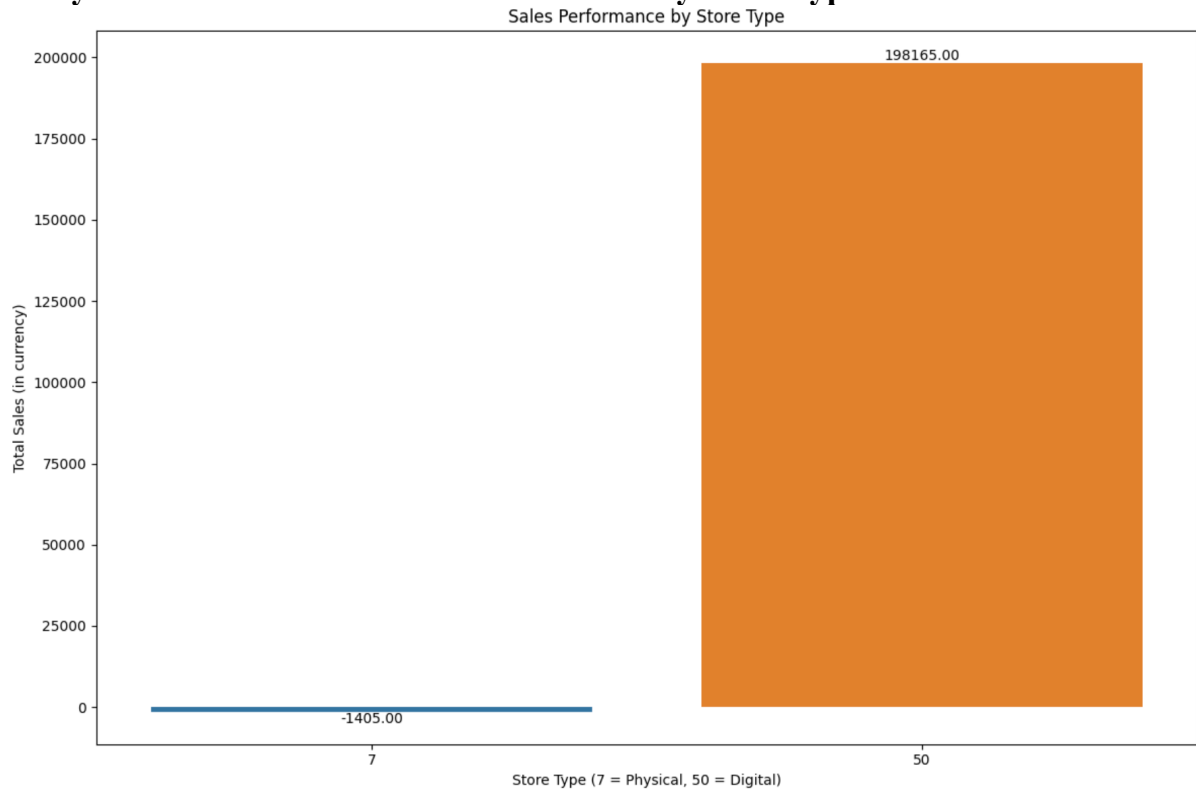
The chart shows that each product (leggings, bra, t-shirt, and shoes) was mostly available, with minimal instances of partial or unavailable status. High availability aligns with the rising demand for women's sportswear, driven by growing interest in fitness and athleisure. Sports brands must ensure inventory readiness, as limited stock could lead to missed sales opportunities. For female consumers, the ability to purchase immediately after seeing an influencer recommendation is essential, especially for popular items like leggings and sports bras, which can sell out quickly. In this market, maintaining inventory during a campaign is crucial for capturing impulse purchases and satisfying demand.

Analysis 6: Engagement Metrics by Device Type

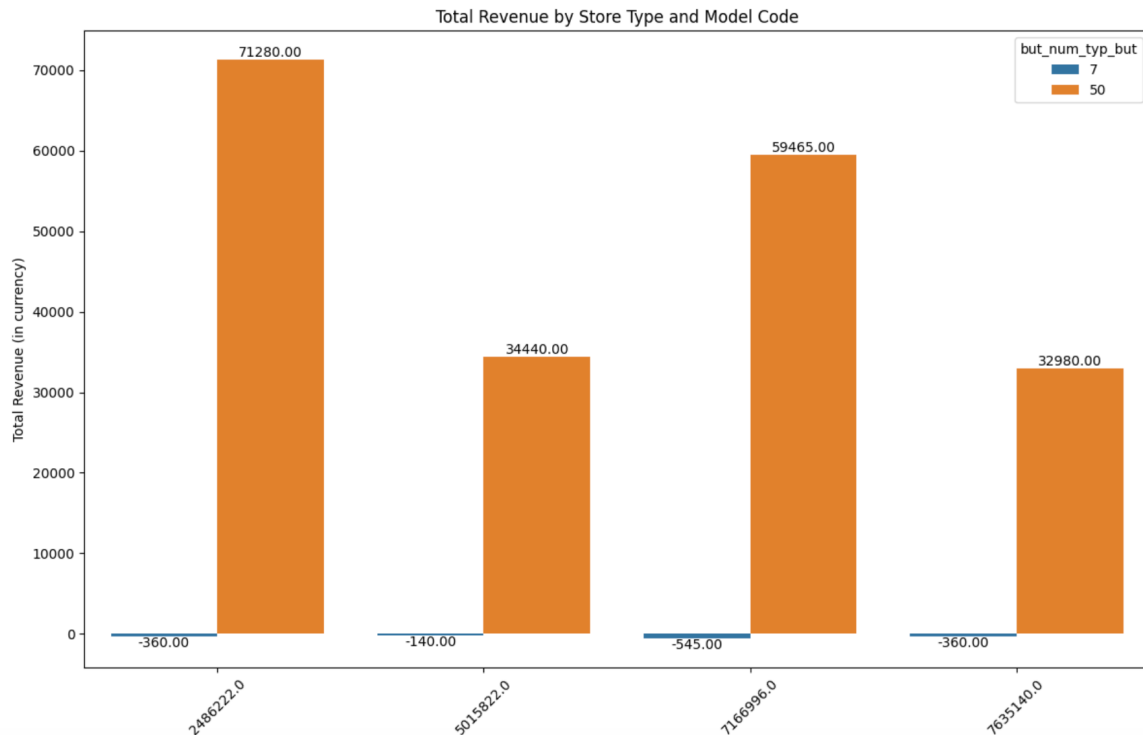


The graph demonstrates that the majority of visitors accessed the platform via mobile (530,775), followed by desktop (170,146), and tablet (34,414). This device breakdown is particularly relevant in the female sportswear market, where mobile shopping is common, especially among younger audiences. Mobile devices allow for quick access to social media and online stores, creating a seamless shopping experience from influencer posts to purchase. For women buying sportswear, especially leggings and sports bras, this accessibility allows them to easily compare items and see reviews, while potentially being influenced by trends on platforms like Instagram. The high mobile usage suggests that optimizing the mobile shopping experience is critical to capturing this audience effectively.

Analysis 7: Sales Performance and Revenue by Store Type

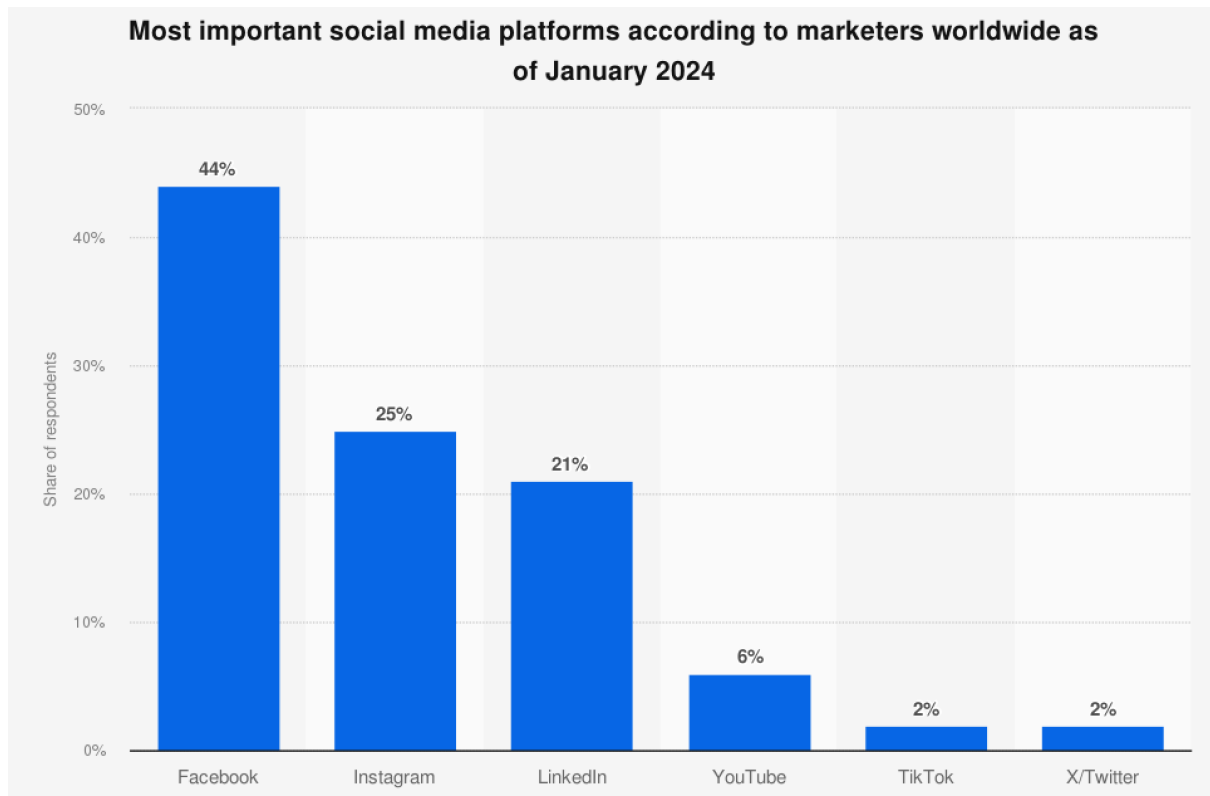


This graph highlights the substantial difference in sales performance between digital and physical stores. With a total sales value of €198,165 from digital stores compared to -€1,405 from physical stores, it's clear that online channels were far more effective. The preference for digital shopping in the female sportswear market reflects the convenience and tailored experience that e-commerce offers. Women purchasing items like leggings and sports bras often value detailed product descriptions, size guides, and customer reviews that digital platforms provide, especially when choosing functional sportswear. Additionally, online platforms allow customers to browse through an extensive range of brands, making it easier to find high-quality, trendy sports apparel.



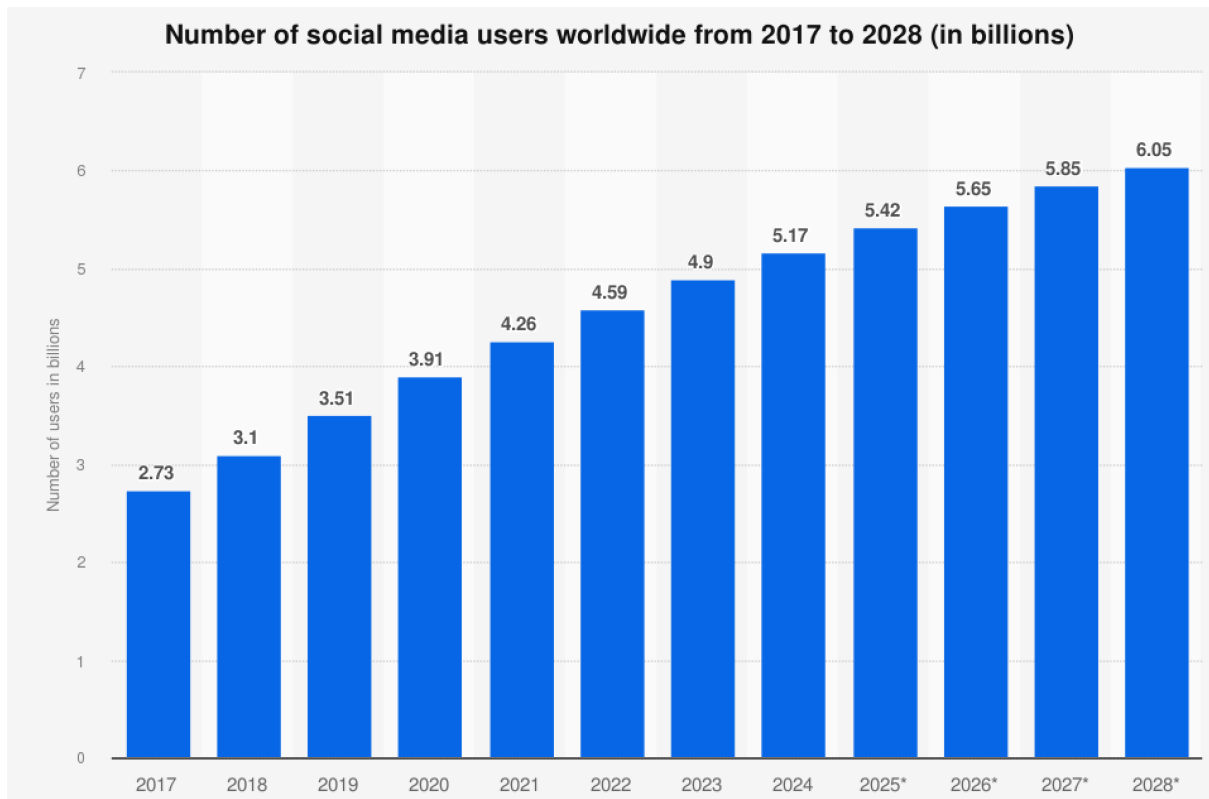
This graph displays the total revenue for each product (leggings, bra, t-shirt, and shoes) divided between digital and physical stores. Notably, digital channels generated the vast majority of revenue, while physical stores contributed minimally, with some even showing negative figures due to returns. This trend is consistent with the shift in consumer behavior, especially for female sports apparel, where online shopping offers convenience and access to a wider selection of products and reviews. Women shopping for sportswear are often influenced by online content, from reviews to influencer endorsements, making digital channels increasingly important. The success of online sales also reflects how digital channels have become the preferred method for purchasing sportswear, particularly items like leggings and sports bras, which are frequently featured in influencer content.

Business Recommendations



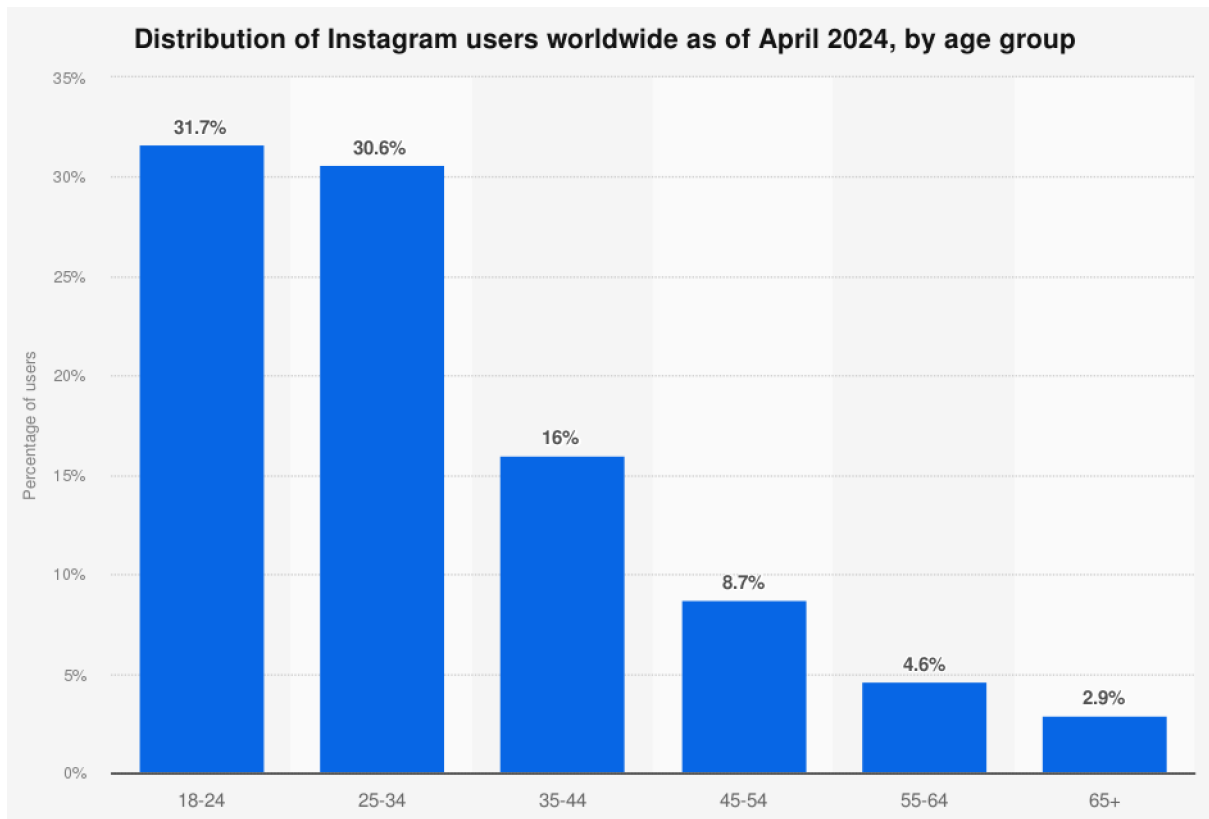
(Source: statista)

The graph shows that Facebook (44%) and Instagram (25%) are considered the most important platforms by marketers worldwide, followed by LinkedIn (21%). Instagram, specifically, aligns well with younger demographics, including Generation Z, making it a strategic platform for reaching this audience with influencer-driven campaigns. For Decathlon's campaign, continuing to leverage Instagram, where younger consumers are active, is essential for targeting Generation Z effectively, particularly in promoting trendy sportswear items like leggings and bras.



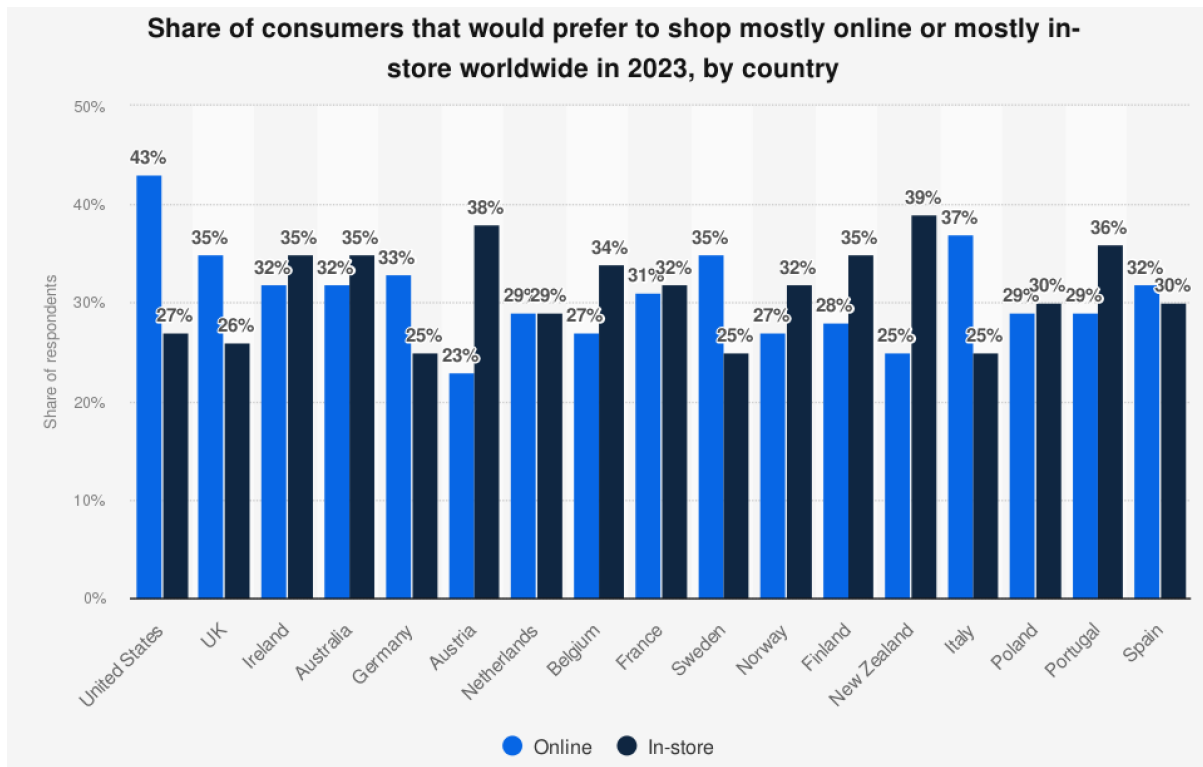
(Source: statista)

The graph illustrates the steady growth of global social media users, projected to reach over 6 billion by 2028. This increasing reach reinforces the importance of social media as a primary marketing channel. With the growing audience, Decathlon has an expanding opportunity to connect with customers globally. As more people use social media for shopping and brand discovery, optimizing online campaigns with targeted ads and influencer partnerships on popular platforms can drive engagement and brand loyalty in the sportswear segment.



(Source: statista)

The graph shows that the largest share of Instagram users falls within the 18-24 (31.7%) and 25-34 (30.6%) age groups, aligning with Generation Z and young millennials. Since these demographics are highly engaged on Instagram, Decathlon's campaign can focus on creating visually engaging content tailored to their interests, emphasizing athleisure and functionality. Using influencers who resonate with this age group, Decathlon can better appeal to these potential customers, enhancing the campaign's effectiveness and driving sales of sportswear items tailored to younger, trend-conscious consumers.



(Source: statista)

The graph illustrates the shopping preferences of consumers worldwide in 2023, with a comparison between those who prefer to shop mostly online and those who prefer in-store shopping, segmented by country. In countries like the United States, Ireland, and the Netherlands, a higher percentage of consumers show a preference for online shopping, while in countries like Austria, Italy, and Spain, in-store shopping remains more popular. This data highlights a global shift toward online shopping, although preferences vary significantly by region.

For the case study, this trend supports the campaign's focus on digital channels, especially considering the global inclination towards online shopping. Since Generation Z and younger consumers show a strong preference for online engagement, Decathlon's decision to run an influencer campaign on a digital platform like Instagram aligns well with these shopping behaviors. The findings suggest that Decathlon should continue to invest in digital marketing strategies to cater to the growing online shopper base, while also considering regional preferences. In countries with higher in-store preferences, Decathlon could integrate online-to-offline (O2O) strategies, like click-and-collect or in-store events, to bridge the digital and physical shopping experiences. This approach would maximize reach and engagement, especially in markets where in-store shopping still has strong support.