

(Saurabh Deshetti)

Loyalitics Business Case

Problem statement:

Loyalitics is an AI and analytics company helping some of the world's leading brands solve their complex data challenges. Their end-to-end platform enables companies to leverage the power of data to craft strategies, create engaging customer experiences, and drive measurable business impact. They were voted one of the best CRM solutions providers in India by the CIO Review magazine in the year 2019. Analyse the sales data from the past 2 years and give recommendations to the brand in order to improve performance in the future.

Dataset:

<https://drive.google.com/file/d/1D5aS3Ynq8RJBtnNZmQWgreqILT6P2dOF/view?usp=sharing>

Data Dictionary:

https://docs.google.com/document/d/12WILZL1nxhbx_IrsmuZfhAtrhk88DBMGLbtW0g-1I7I/edit?usp=sharing

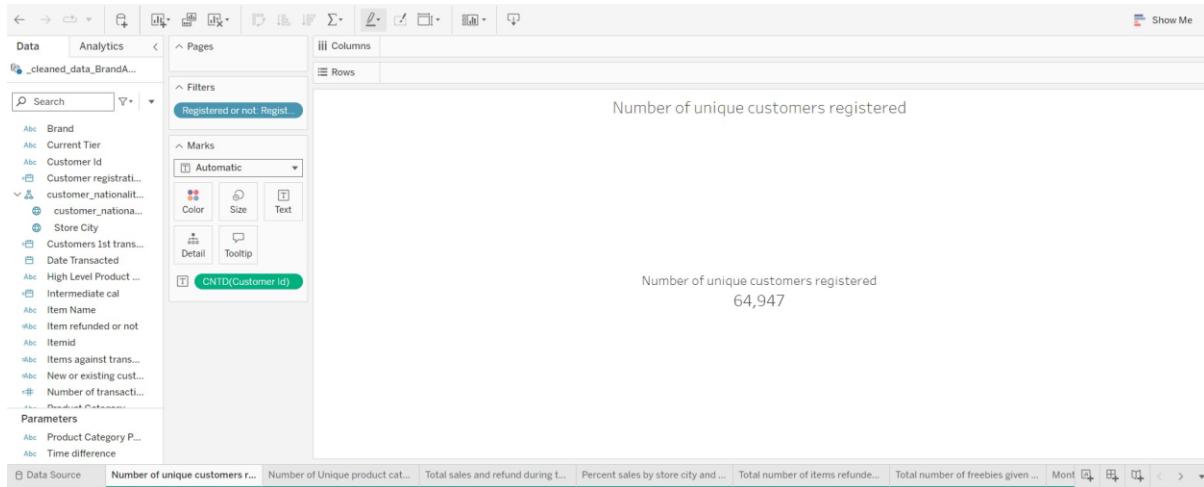
Expectations:

Below are questions that were already given to you as part of the Tableau-Excel module as homework to solve if you have already solved them, please proceed to solve advanced questions and if not please first solve basic questions first and then proceed to solve the advanced question.

Note: Prior to solving the case study, please perform basic data cleaning and the creation of additional field steps as mentioned in the data dictionary document.

Basic questions:

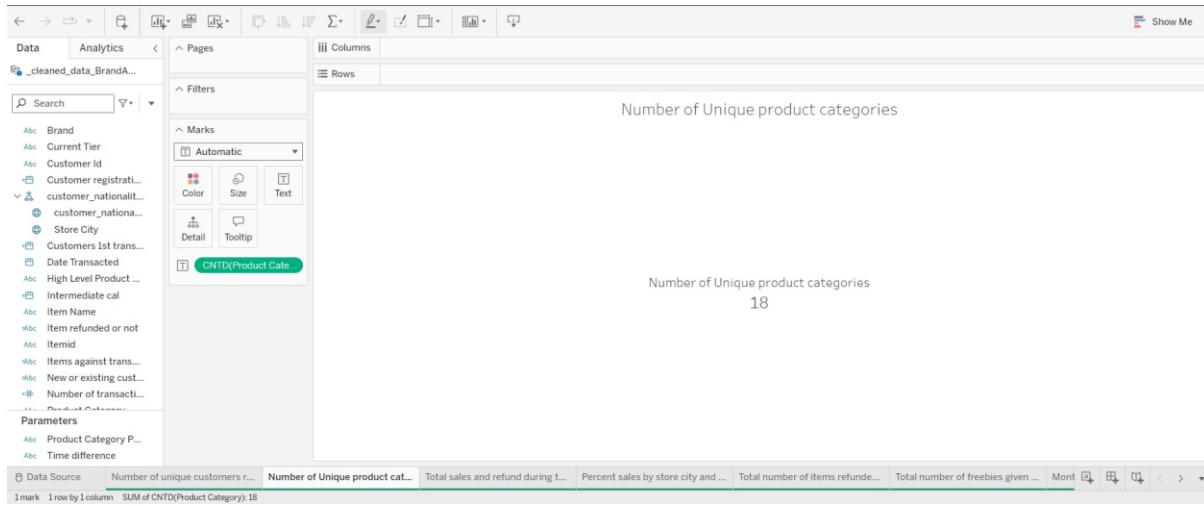
- Number of customers registered for the program



Insights:

- The total number of registered customers indicates the program's overall appeal and effectiveness.
- A noticeable increase in registrations during promotional periods suggests successful marketing campaigns.
- The demographic breakdown of registered customers can inform targeted marketing strategies.
- Monitoring registration trends can help identify peak seasons for customer engagement.
- A high retention rate among registered customers may indicate satisfaction with the program.

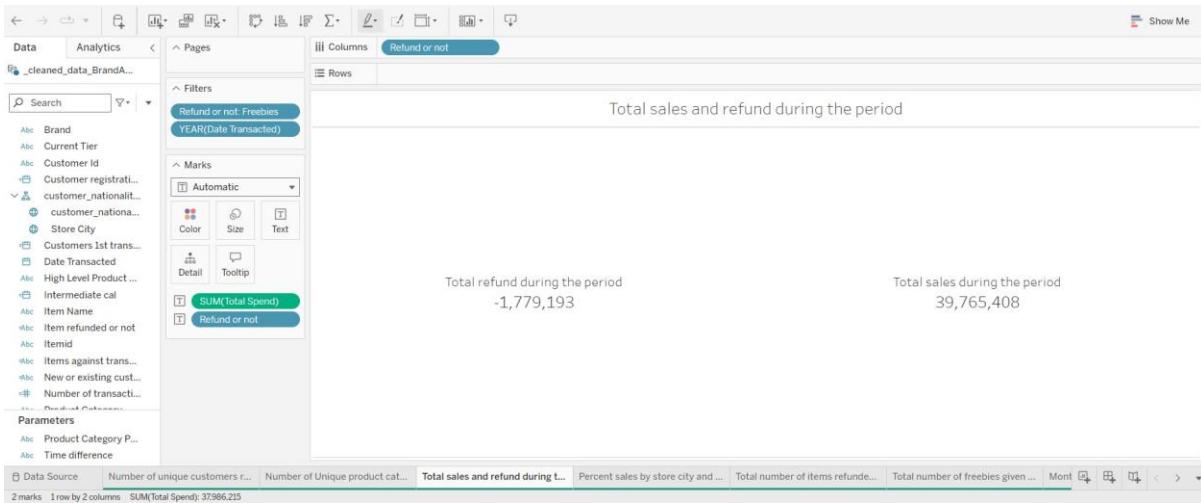
- **Total number of unique product category**



Insights:

- A diverse range of product categories can enhance customer choice and satisfaction.
- Tracking the number of unique categories over time can reveal shifts in market demand.
- An increase in unique categories may indicate successful product development and expansion.
- Understanding customer preferences across categories can guide inventory management.
- A balanced portfolio of categories can minimize risks associated with market fluctuations.

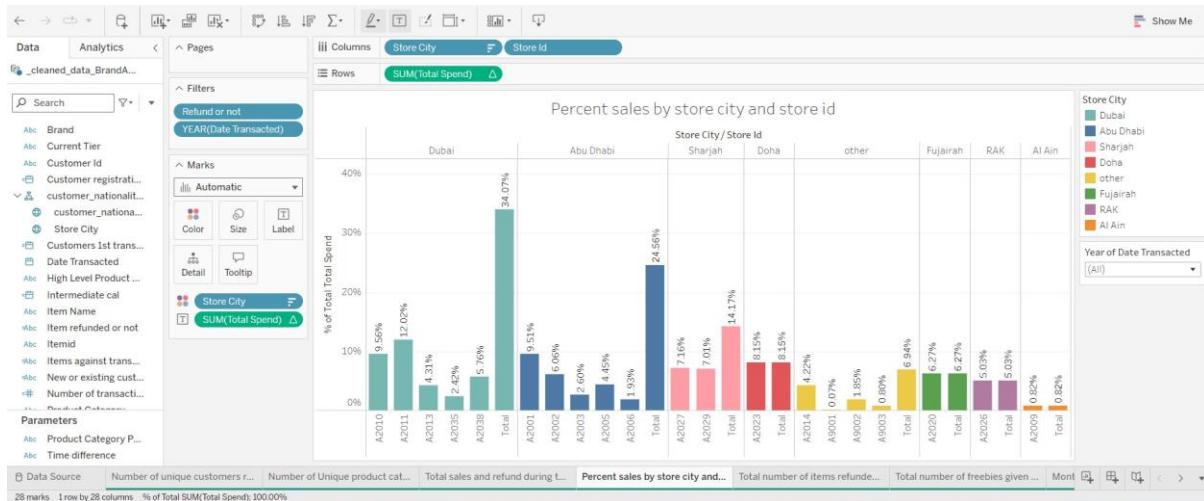
- Find out the total sales and refund during the given period



Insights:

- Comparing total sales to refunds provides insights into customer satisfaction and product quality.
- A high refund rate relative to sales may indicate issues with specific products or services.
- Seasonal trends in sales and refunds can highlight the effectiveness of promotions.
- Understanding the reasons behind refunds can inform product improvements and customer service strategies.
- Analysing sales and refunds together can help in forecasting future revenue more accurately.

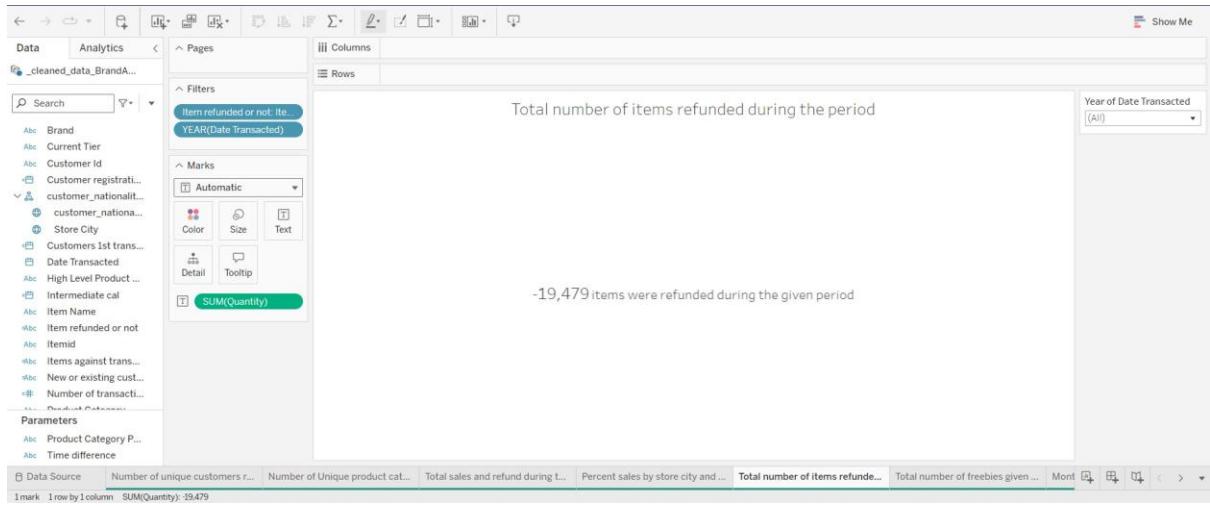
- Percent sales contribution by each store city and store id to the total sales for the given period



Insights:

- Identifying top-performing cities and stores can inform localized marketing efforts.
- Variations in sales contributions across locations may highlight regional preferences or operational efficiencies.
- This analysis can assist in resource allocation and strategic planning for store expansions.
- Understanding sales contributions can help identify underperforming areas that may need attention.
- Monitoring changes in sales contributions over time can provide insights into market dynamics.

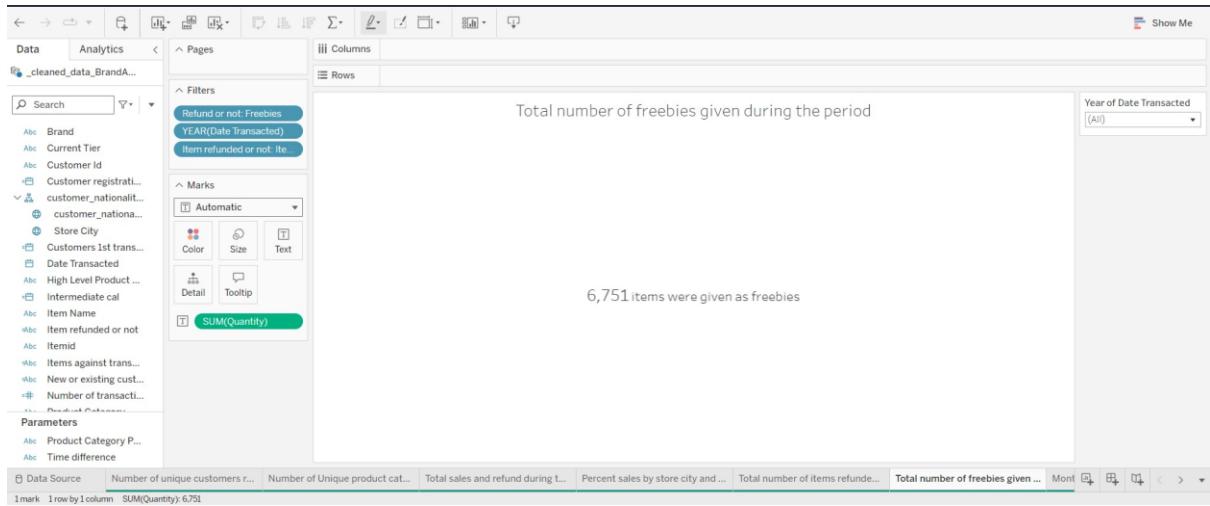
- **Total number of items refunded during the period**



Insights:

- A high number of refunds may indicate product quality issues or customer dissatisfaction.
- Tracking refunds over time can help identify trends and potential areas for product improvement.
- Understanding refund patterns can aid in customer service strategies and retention efforts.
- Analysing refunds by product category can highlight specific issues that need addressing.
- Monitoring refunds can also inform inventory management and purchasing decisions.

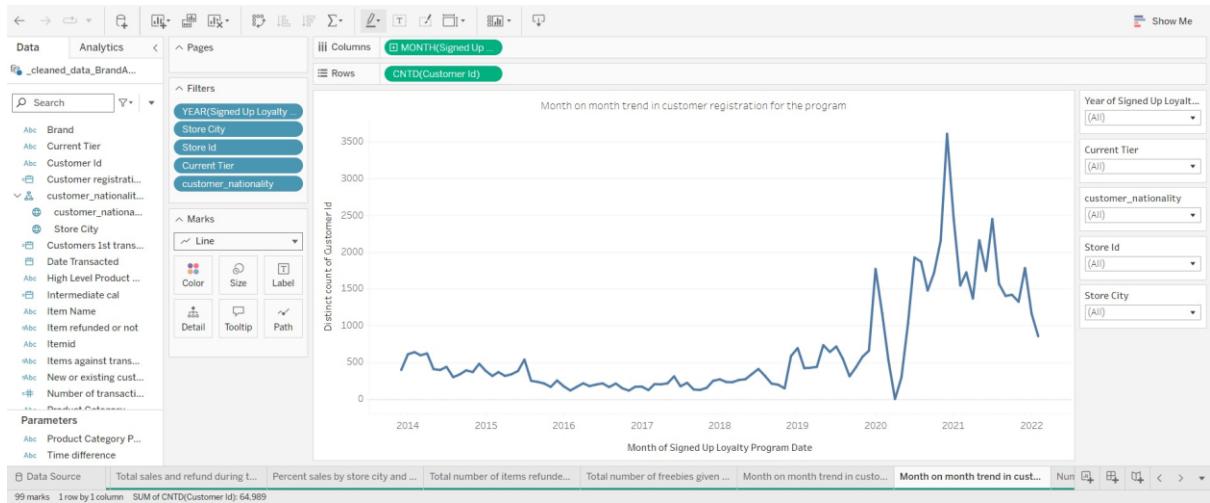
- Total number of freebies given during the period



Insights:

- Analysing the number of freebies can provide insights into promotional effectiveness and customer engagement.
- A high number of freebies may correlate with increased customer loyalty and repeat purchases.
- Understanding the impact of freebies on sales can help optimize future promotional strategies.
- Tracking the types of freebies given can inform future product offerings and marketing efforts.
- Monitoring customer feedback on freebies can enhance future promotional campaigns.

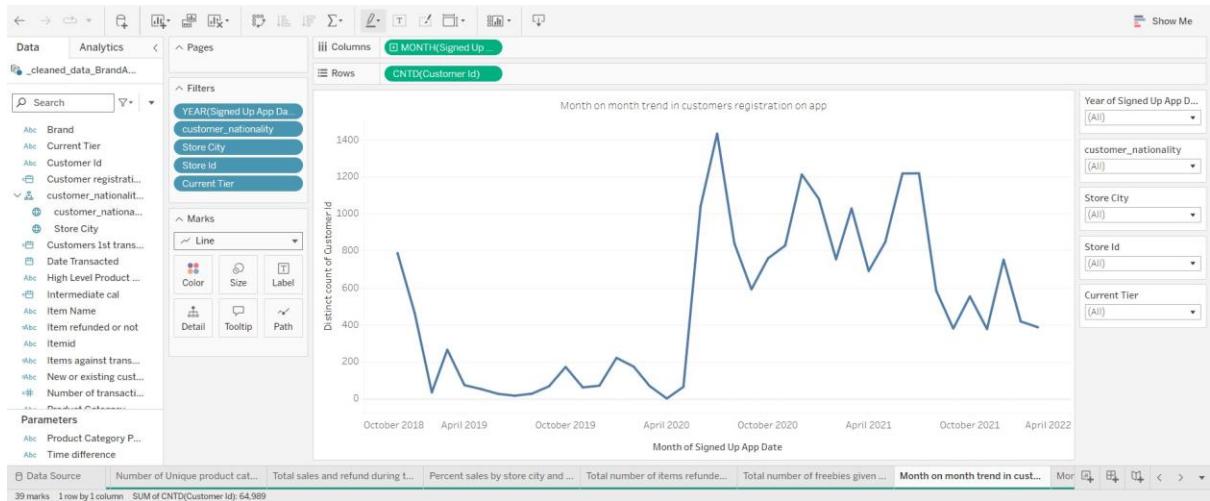
- Get the month-on-month trend of customers registration for the program



Insights:

- Month-on-month trends can highlight seasonal patterns in customer engagement and registration.
- Identifying spikes in registrations can inform future marketing campaigns and promotional strategies.
- A consistent upward trend may indicate growing brand loyalty and program effectiveness.
- Analysing registration trends can help in forecasting future customer acquisition.
- Understanding the impact of external events (e.g., holidays) on registrations can guide timing for promotions.

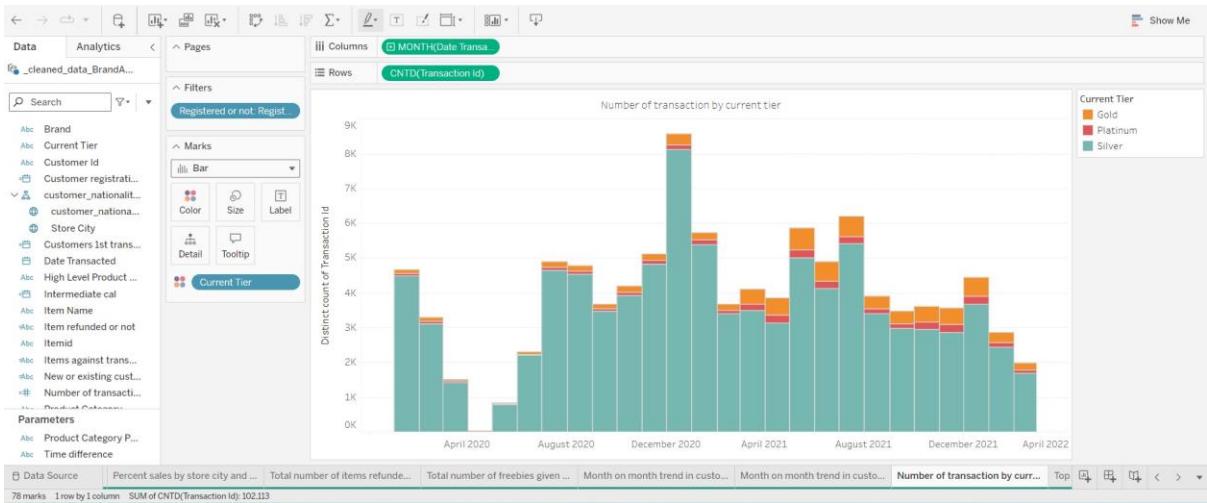
- Get the month-on-month trend of customers registering on the app



Insights:

- Tracking app registrations provides insights into digital engagement and user experience.
- A steady increase in app registrations may reflect successful digital marketing efforts.
- Understanding app registration trends can guide app development and feature enhancements.
- Comparing app registrations with program registrations can highlight the app's value proposition.
- Month-on-month trends can help identify periods of increased customer interest in digital platforms.

- Monthly trend in number of transactions of registered customers by current tier.



Insights:

- Analysing transaction trends by customer tier can reveal the effectiveness of tier-based incentives.
- Higher transaction volumes in certain tiers may indicate successful loyalty strategies.
- Understanding tier performance can help tailor offerings and promotions to different customer segments.
- This analysis can inform decisions about adjusting tier thresholds or benefits.
- Monitoring trends can help identify potential churn in lower-performing tiers.

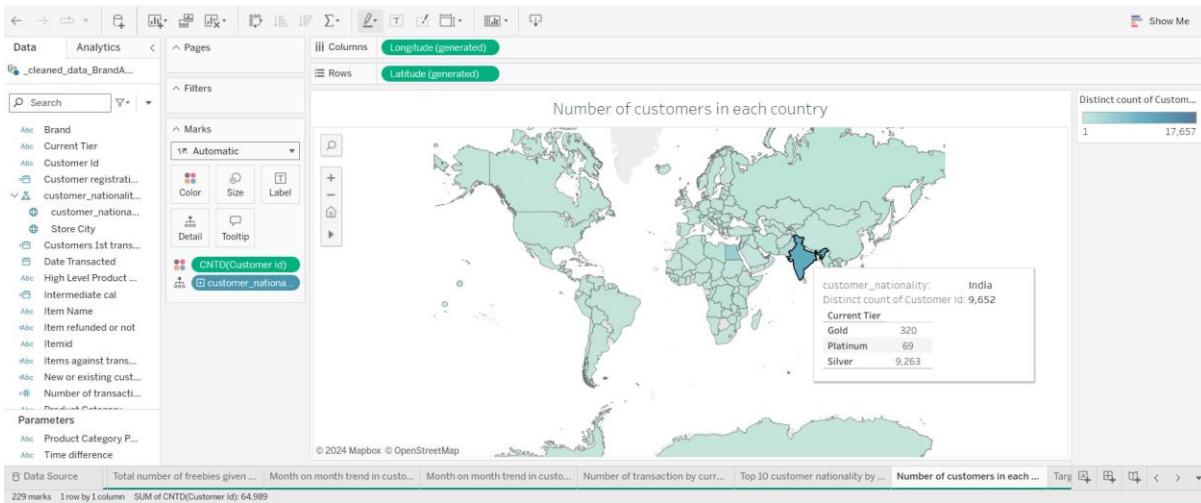
- **Top 10 customer nationality by number of customers signing up for loyalty program.**



Insights:

- Understanding customer demographics can inform targeted marketing strategies and personalized communications.
- Identifying the top nationalities can help in customizing offers and promotions to specific groups.
- This insight can assist in expanding the loyalty program to underrepresented nationalities.
- Analysing nationality trends can help in assessing the effectiveness of international marketing efforts.
- Understanding cultural preferences can guide product offerings and marketing messages.

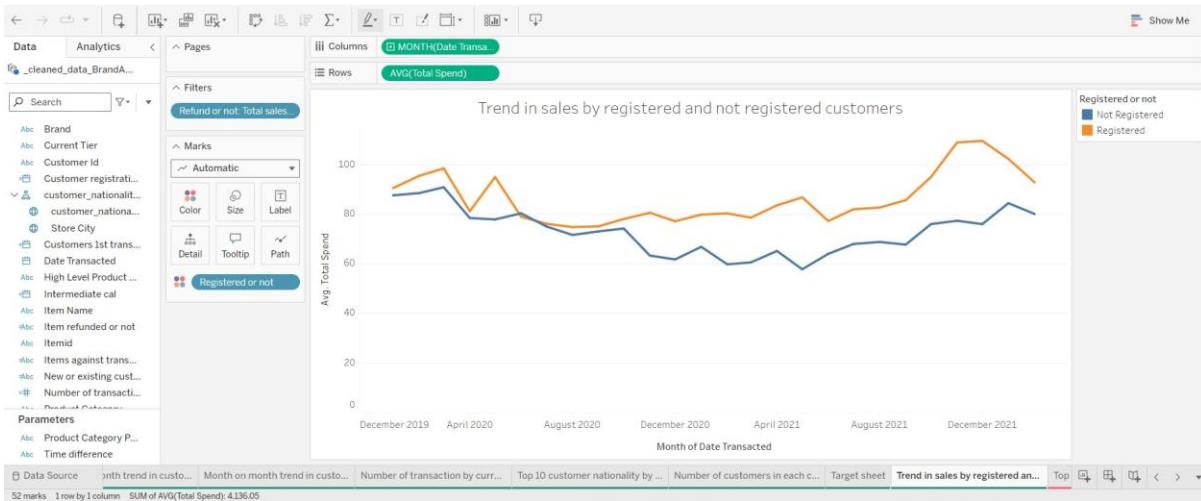
- Count of customer from each country and number of customers based on current tier



Insights:

- A detailed breakdown of customers by country and tier can highlight market penetration and engagement.
- This information can guide localized marketing efforts and tier adjustments based on demographics.
- Understanding tier distribution can help evaluate the effectiveness of loyalty initiatives across regions.
- Analysing customer counts can inform decisions about expanding into new markets or regions.
- Monitoring changes in customer counts can help assess the impact of marketing campaigns.

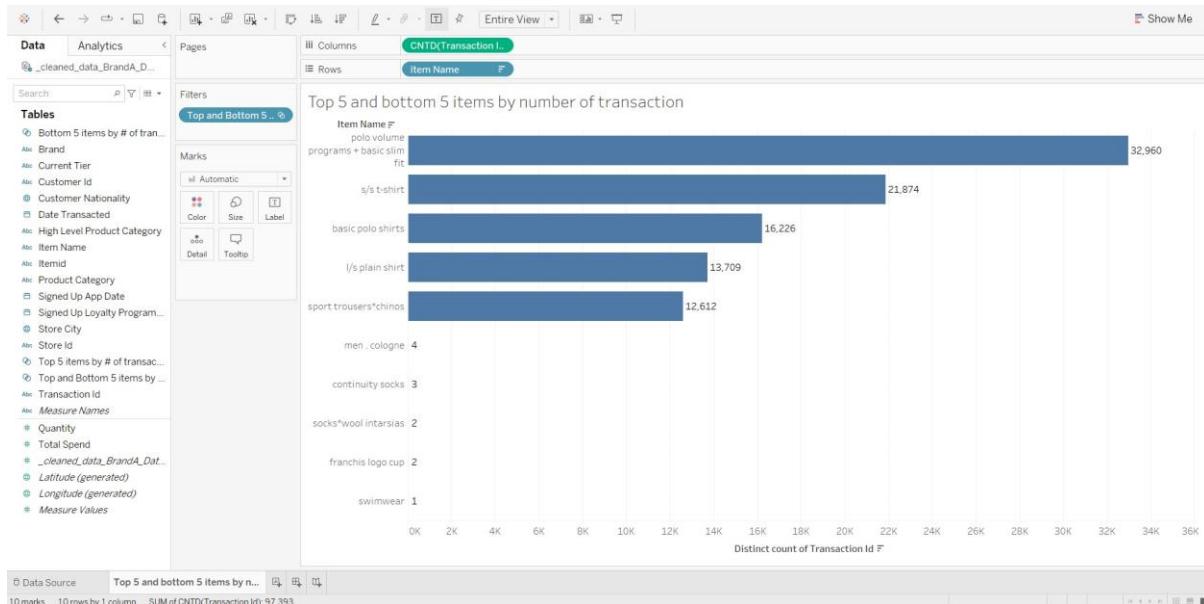
- Trend in average total spent by registered customers and not registered customers



Insights:

- Comparing spending trends can reveal the financial impact of loyalty programs on customer behaviour.
- Registered customers typically show higher spending, indicating program effectiveness and value.
- Understanding these trends can inform customer retention strategies and marketing efforts.
- Analysing spending differences can help identify opportunities to convert non-registered customers.
- Monitoring changes in average spending can guide pricing strategies and promotional offerings.

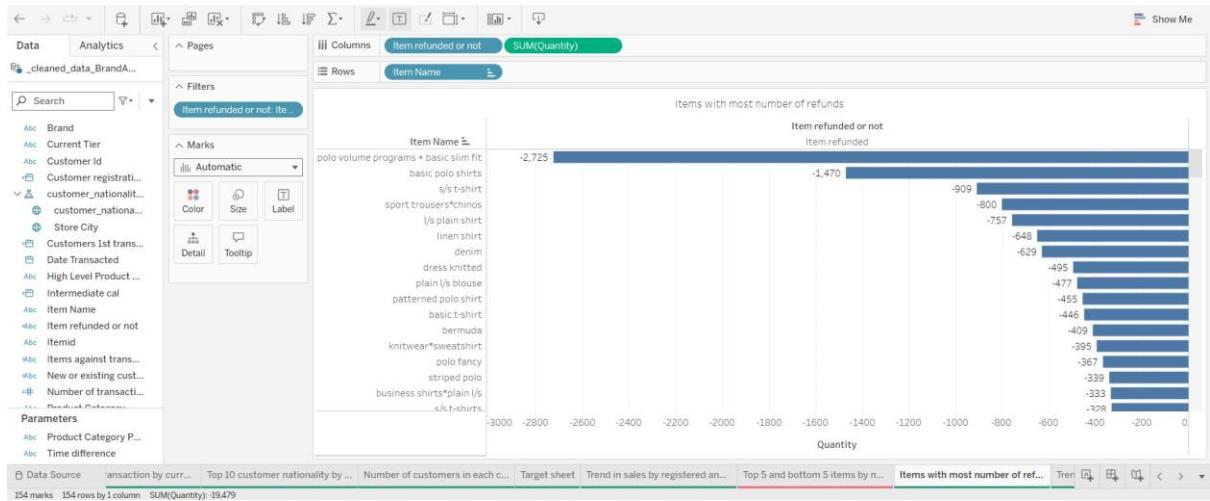
- Top 5 and bottom 5 items by number of transactions done



Insights:

- Identifying top-selling items can inform inventory management and promotional strategies.
- Understanding low-performing items can help in making decisions about discontinuation or rebranding.
- This analysis can guide marketing efforts to boost sales of underperforming products.
- Analysing transaction data can reveal insights into customer preferences and buying behaviour.
- Monitoring changes in item performance can help adjust marketing strategies accordingly.

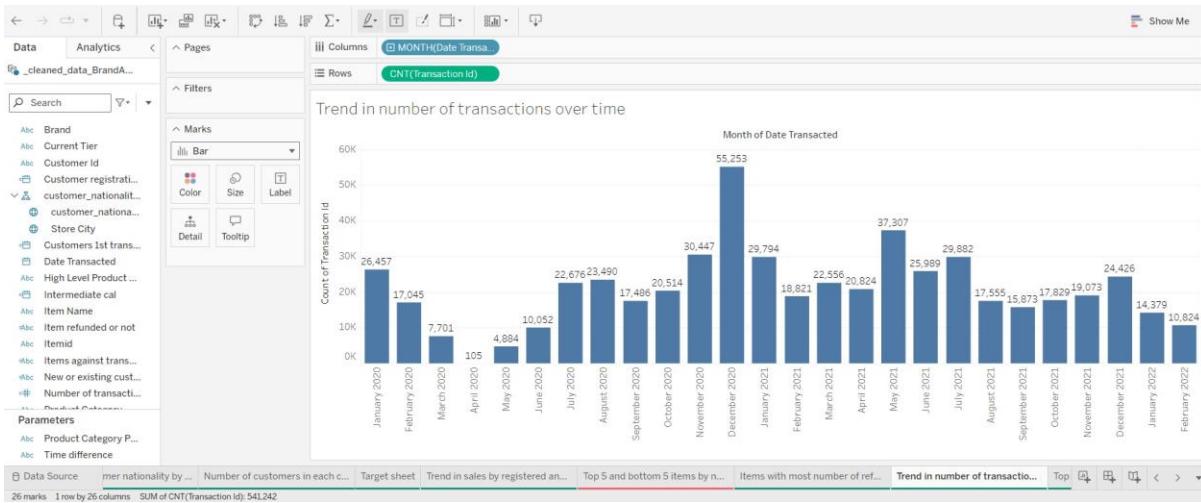
- Find items with the most number of refunds



Insights:

- Items with high refund rates should be analysed for quality or customer satisfaction issues.
- Understanding refund patterns can help in making informed decisions about product offerings.
- This insight can guide customer service improvements and product development efforts.
- Analysing refunds can help identify potential trends in customer dissatisfaction.
- Monitoring refunds by product category can inform inventory management and purchasing decisions.

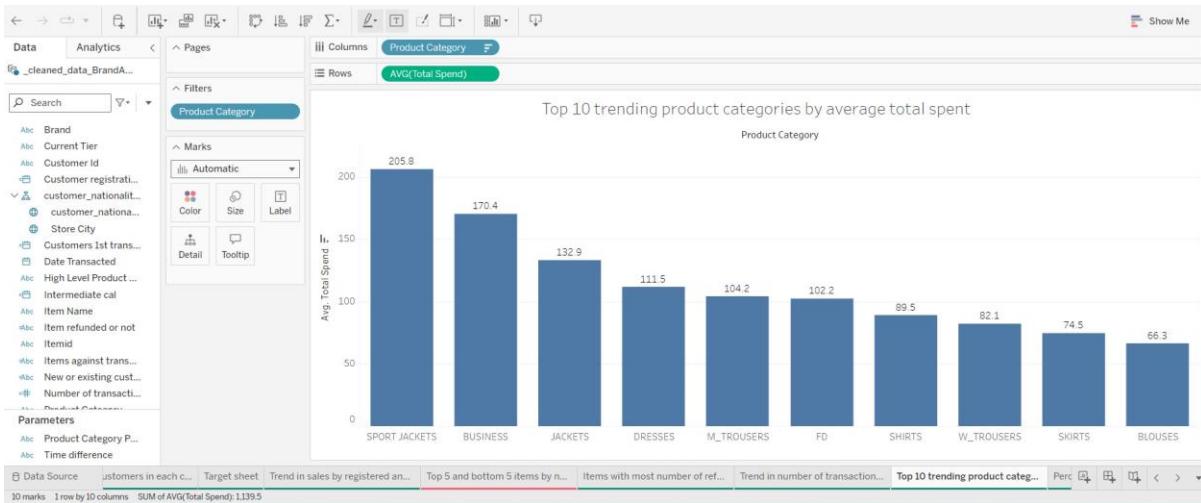
- Trend in number of transactions over time



Insights:

- Analysing transaction trends can help in forecasting future sales and operational needs.
- Identifying peak transaction periods can inform staffing and inventory strategies.
- This trend analysis can also highlight the effectiveness of marketing campaigns and promotions.
- Understanding transaction patterns can guide strategic planning for future growth.
- Monitoring changes in transaction volume can help assess the impact of external factors (e.g., economic conditions).

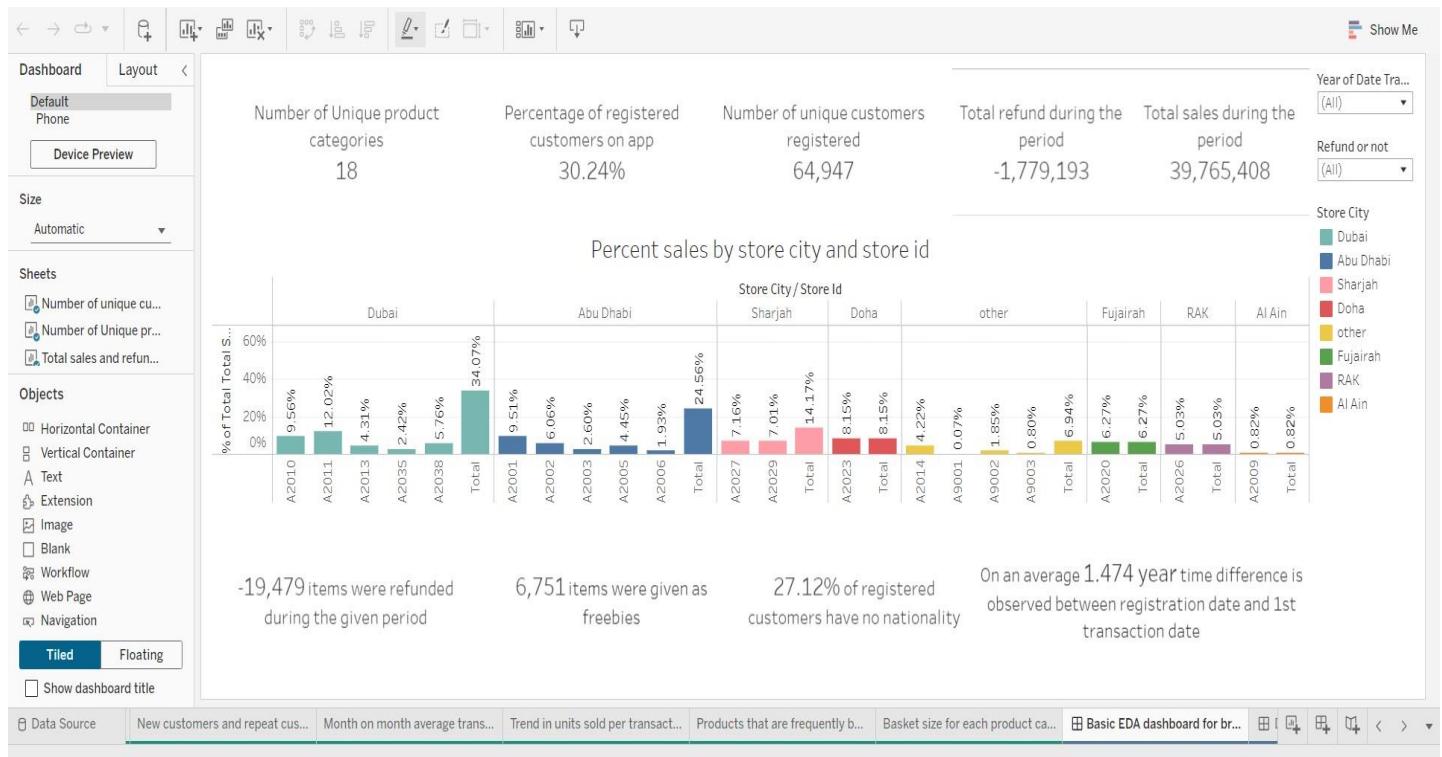
- **Top 10 trending product categories by average total spent**



Insights:

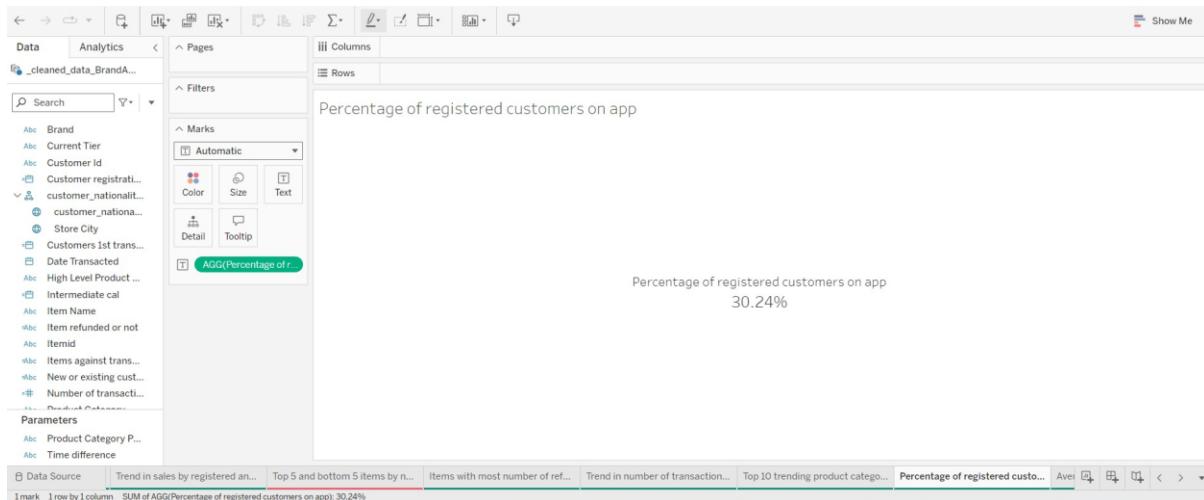
- Trending categories indicate shifting consumer preferences and can guide inventory decisions.
- High average spending in certain categories may suggest successful marketing or product quality.
- This insight can inform future product development and promotional strategies.
- Understanding category trends can help in identifying potential areas for expansion.
- Monitoring changes in spending by category can help assess the effectiveness of marketing campaigns.

Dashboard:



Advanced questions:

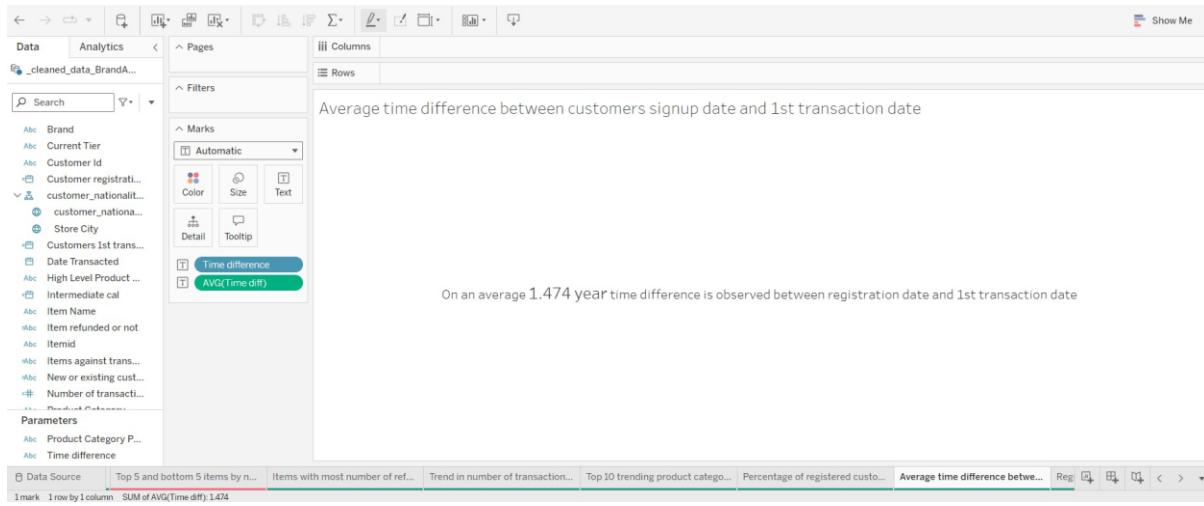
- Percentage of registered customers signed up on app



Insights:

- A high percentage indicates successful integration of the app with the loyalty program, enhancing customer engagement.
- Understanding this metric can guide future app enhancements and marketing strategies.
- It reflects customer engagement and the app's value proposition in the overall customer experience.
- Analysing the demographics of app users can inform targeted marketing and feature development.
- Monitoring changes in this percentage can help assess the impact of promotional efforts on app adoption.

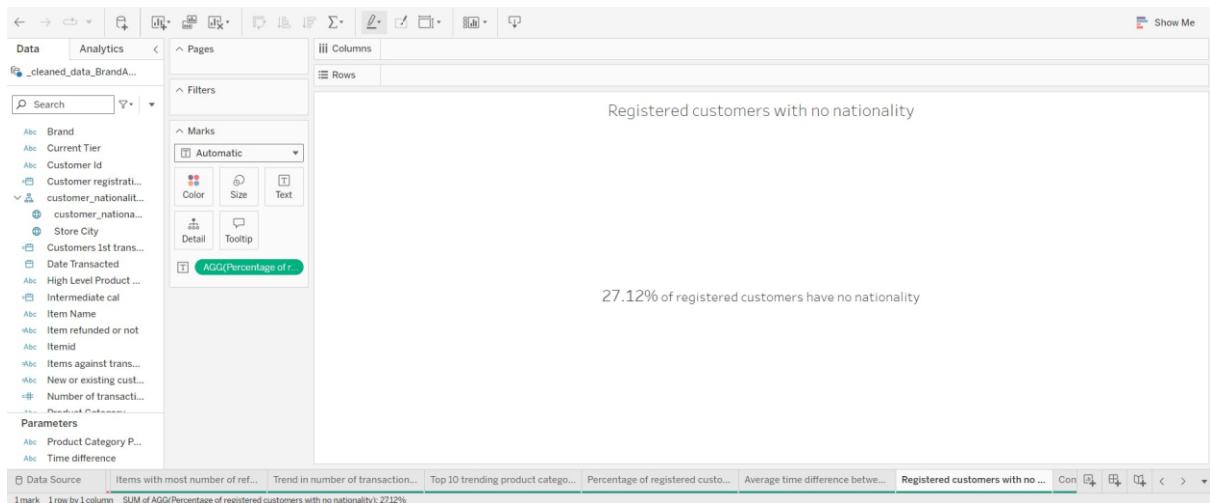
- Find out what is the average time period difference between customers registration date and 1st transaction date



Insights:

- A shorter time frame may indicate effective onboarding processes and customer engagement strategies.
- Longer periods could highlight barriers to initial purchases, guiding improvements in customer engagement efforts.
- Understanding this metric can help in refining marketing strategies to encourage quicker transactions.
- Analysing the reasons for delays can inform adjustments in communication and promotional tactics.
- Monitoring changes in this average over time can help assess the effectiveness of onboarding initiatives.

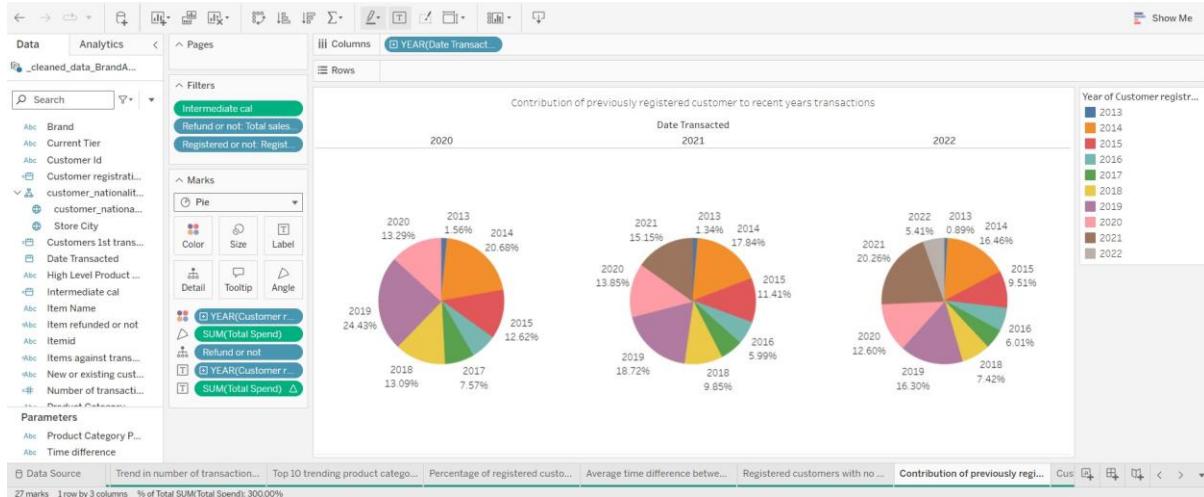
- Percentage of registered customers where customer id is present but customer nationality is missing



Insights:

- A significant percentage may indicate data collection issues that need addressing, impacting customer profiling.
- Understanding this can improve data accuracy and enhance targeted marketing efforts.
- It highlights the importance of comprehensive data collection methods and customer information accuracy.
- Monitoring this metric can help identify trends in data completeness over time.
- Addressing missing nationality data can enhance customer segmentation and personalization strategies.

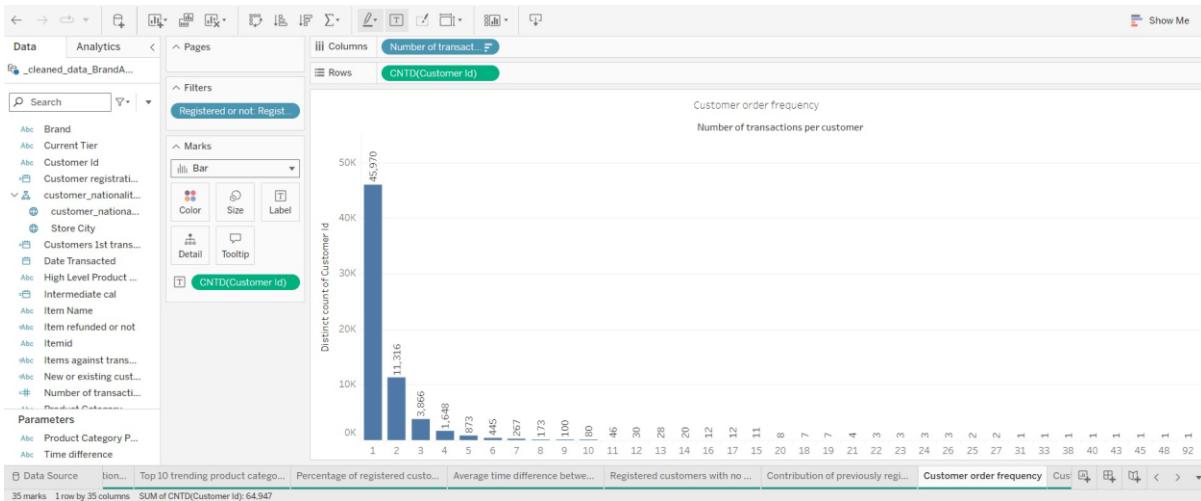
- Analyse percentage contribution to total sales for each year by customer registration date.
- Example-find out what was the percentage sales contribution by customers who registered in 2013 for the years 2020,2021 and 2022 and so on.



Insights:

- This analysis can reveal long-term value from customers based on their registration year, informing retention strategies.
- Understanding yearly contributions can help assess the effectiveness of marketing campaigns over time.
- It helps identify trends in customer loyalty and spending behaviour, guiding future marketing efforts.
- Monitoring changes in contributions can highlight shifts in customer engagement and retention.
- This insight can inform strategic decisions regarding resource allocation and marketing focus.

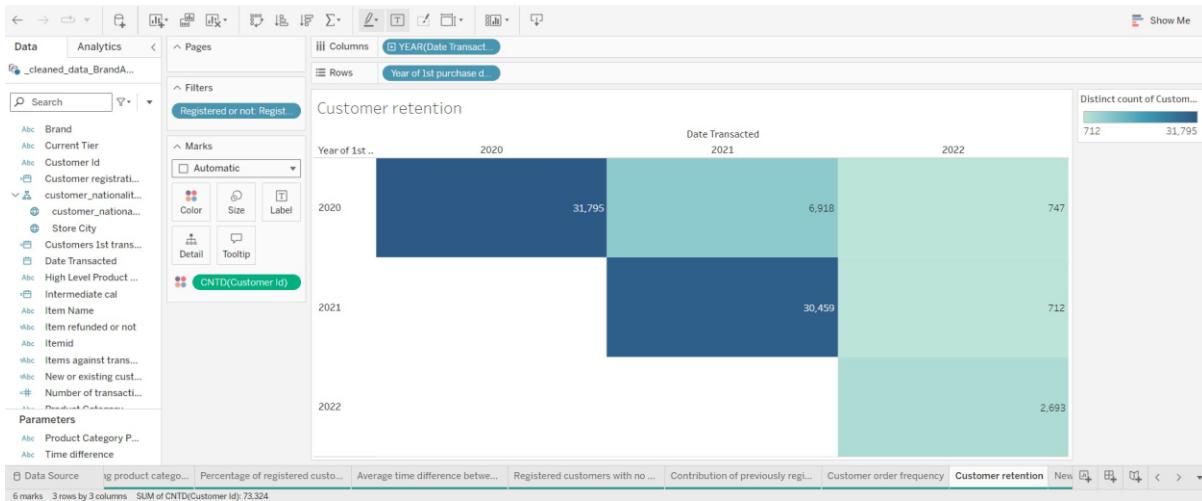
- Find customer order frequency i.e. how many customers had done 1,2, 3...N transactions.



Insights:

- Analysing order frequency can help identify loyal versus occasional customers, guiding targeted marketing efforts.
- Understanding transaction patterns can inform retention strategies and promotional offerings.
- This insight can guide tier adjustments and enhance customer engagement initiatives.
- Monitoring changes in order frequency can help evaluate the effectiveness of loyalty programs.
- Identifying customers with low transaction frequency can inform re-engagement strategies.

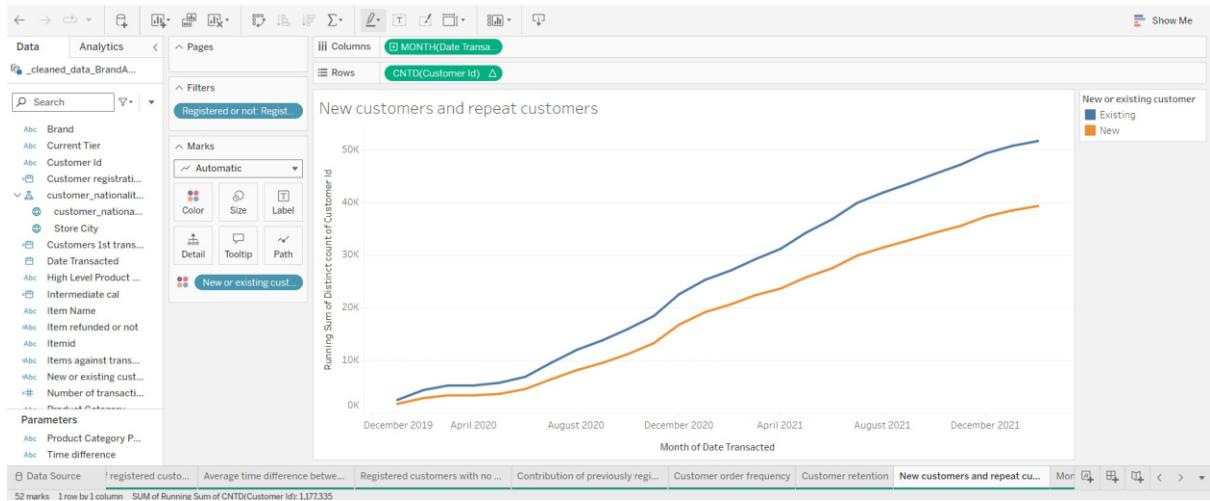
- Year on Year customer retention who registered for the program.



Insights:

- Tracking retention rates provides insight into the program's effectiveness and customer loyalty over time.
- High retention rates indicate strong customer satisfaction and engagement with the loyalty program.
- This metric can inform strategic decisions regarding program enhancements and customer engagement tactics.
- Monitoring retention trends can help identify factors contributing to customer loyalty or churn.
- Understanding retention patterns can guide marketing strategies to improve customer engagement.

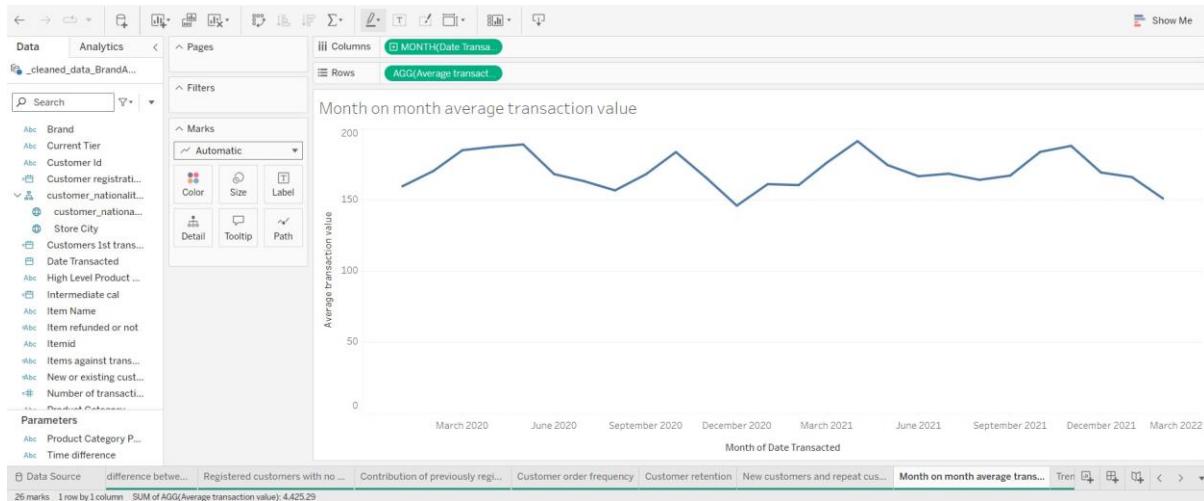
- Month on Month count of new customers and repeat customers



Insights:

- Analysing new versus repeat customers can help assess customer loyalty and acquisition strategies.
- A growing number of repeat customers may indicate successful engagement tactics and satisfaction.
- Understanding the balance between new and repeat customers can inform marketing resource allocation.
- Monitoring changes in these counts can help assess the impact of promotional efforts on customer behaviour.
- This insight can guide strategies to convert new customers into repeat buyers.

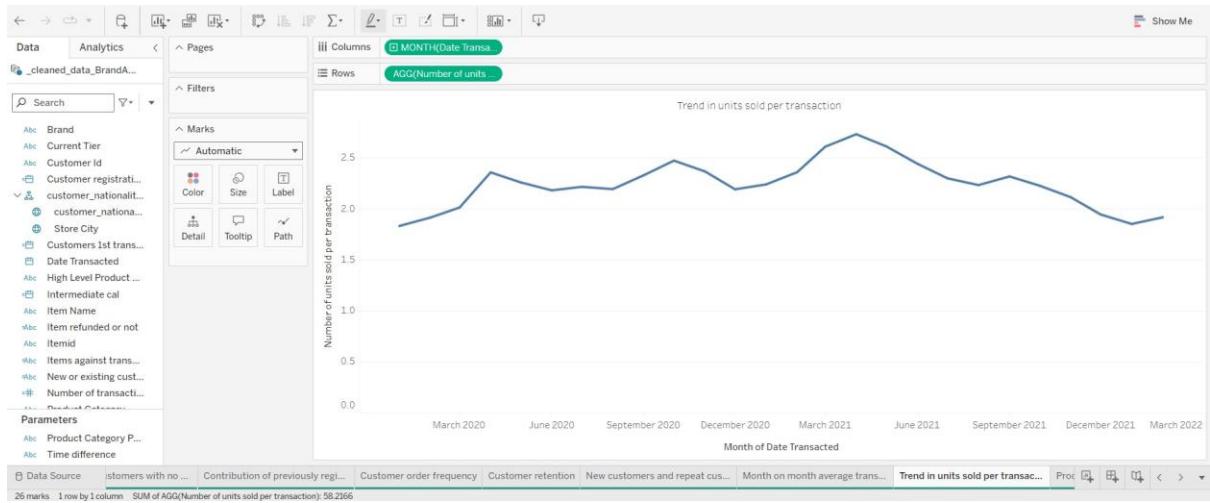
- Month on month average transaction value (revenue/# of transaction for given time period)



Insights:

- Monitoring average transaction value helps assess customer spending behaviour and purchasing patterns.
- A rising average may indicate successful upselling or promotional strategies that encourage higher spending.
- Understanding these trends can inform pricing strategies and product offerings.
- Analysing average transaction value can help identify opportunities for enhancing customer engagement.
- Monitoring changes in this metric can provide insights into the effectiveness of marketing campaigns.

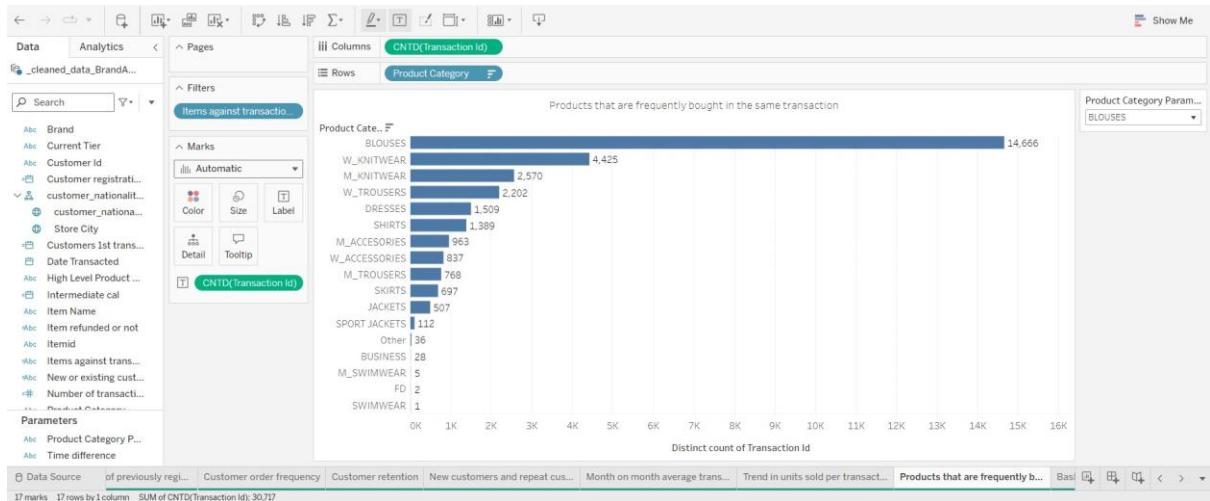
- Month on month trend in units sold per transaction (number of units sold/# of transaction)



Insights:

- Analysing units sold per transaction can provide insights into customer purchasing behaviour and preferences.
- A high average may indicate effective bundling or upselling strategies that enhance the shopping experience.
- Understanding these trends can guide inventory management and promotional efforts.
- Monitoring changes in units sold per transaction can help assess the impact of marketing strategies.
- This insight can inform decisions about product placements and promotional campaigns.

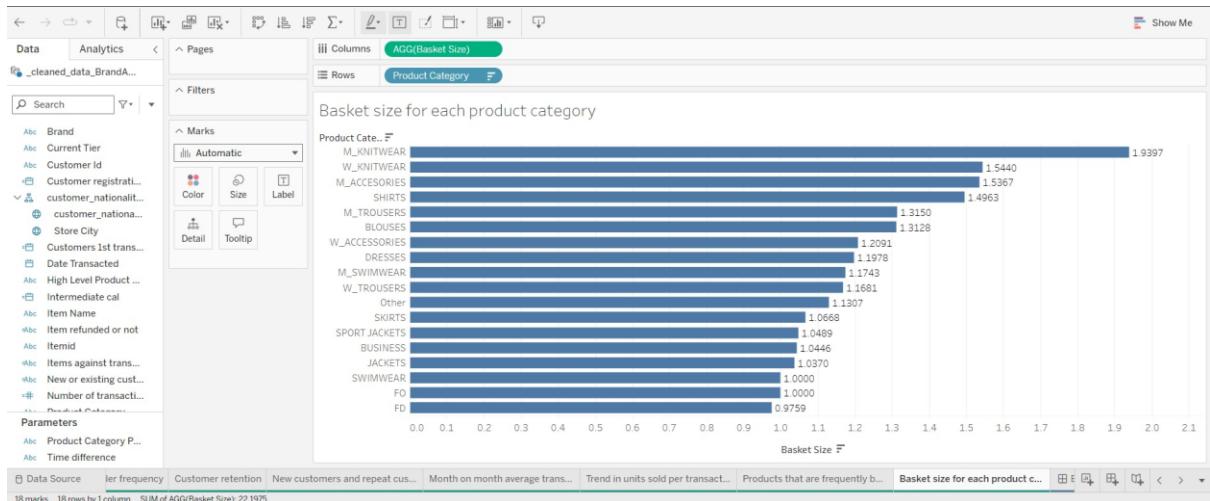
- Find out products that are frequently bought together in same transaction, in more than 2 orders



Insights:

- Identifying frequently bought together products can inform cross-selling strategies and promotional efforts.
- This analysis can enhance customer experience by suggesting complementary products.
- Understanding these patterns can improve inventory management and product placement strategies.
- Monitoring changes in frequently bought products can help assess the effectiveness of marketing campaigns.
- This insight can guide strategic decisions regarding product bundling and promotions.

- **Find out the basket size for each product category**
 - **Basket size=Total number of units sold/Total number of transactions**
 - **Basket size tells us about number of units sold per transaction. A large basket size may indicate that your store is doing a good job at fulfilling shoppers' needs.**



Insights:

- Analysing basket size helps assess customer purchasing behaviour across different categories.
- Larger basket sizes may indicate successful product bundling or customer satisfaction with offerings.
- Understanding basket size trends can guide marketing strategies to enhance customer engagement.
- Monitoring changes in basket size can help inform inventory management and purchasing decisions.
- This insight can assist in identifying opportunities for upselling and cross-selling.

Dashboard:

