

Table of Contents	
Sheet Name	Description
Executive Summary	Summarizes analysis and conclusions
Purchase Activity	Table showing only those event types which are purchases
Cohort Analysis	Pivot Table showing unique count of users for each cohort
Retention Rates	Table showing retention rates of cohorts over time
Conversion Funnel	Count of unique users at each step of conversion funnel and conversion rates (%)
First Purchase	Pivot table showing the first purchase for each user in data set
Raw User Activity	Raw user activity
Legend	
Summaries	
Analysis	
Calculations	
Raw Data	

Executive Summary

Current conversion rates and user retention rates could use improvement.

Results	Synopsis
Conversion Funnel	From the pivot table analysis, one can see that the total conversion rate is low at 10%. However, the conversion rate for users who added an item to their shopping cart then purchased the item is better at 35.6%. Therefore, the team should explore options and strategies to have more page-viewers add items to their cart. Perhaps adding purchase incentives or discounts could help bring the conversion rate up.
Retention Rates	Overall retention rates are poor. The company's current retention rates are highest when cohorts are in their first month of age. In months 2-4 we see a significant loss of retention. Perhaps a referral program, membership program, or promo codes would help to retain more users.
Analysis	Description
Raw Data	This raw data shows user activity on the company website during the timespan from September 24th, 2020 through February 28th, 2021.
Conversion Funnel	Taking the raw data, I created a pivot table to count the total number of unique users at each stage of the conversion funnel (view-->shopping cart-->purchase) and then calculated the percentage of these users who converted to the next stage of the funnel as well as the overall conversion rate.
Retention Rates	For the purpose of user acquisition analysis, we are only interested in users who have made purchases. I filtered the 'event_type' column to produce only results where a user made a purchase. After finding the minimum (or first) purchase for each user, I added the results to a new column in the purchase data sheet. This allowed me to divide the users into cohorts based on their first purchase month. Using these columns, I created a pivot table ('cohort_analysis') showing each cohort, the age of the cohort, and the count of unique users at each age of the cohort. The retention rates from the 'cohort_analysis' were then calculated and documented in the 'retention_rates' sheet.

COUNTUNIQUE of use	cohort_age				
purchase_first_month	0	1	2	3	4
2020-09	32	4	2		1
2020-10	187	14	7	1	1
2020-11	238	13	7	1	
2020-12	203	9	6		
2021-01	233	16			
2021-02	188				

	cohort_age			
cohort_start_date	1	2	3	4
2020-09	12.50%	6.25%	0.00%	3.13%
2020-10	7.49%	3.74%	0.53%	0.53%
2020-11	5.46%	2.94%		
2020-12	4.43%	2.96%		
2021-01	6.87%			

<i>event_type</i>	COUNTUNIQUE of user_id	total_conversion_rate	conversion_step_to_step
view	10453	10.3%	
shopping_cart	3036		29%
purchase	1081		35.6%