Table of Contents

Sheet Name	Description
Executive Summary	Description and findings
conversion_funnel	shows how users interact with the website
retention_rates	Retention rates calculated based on the cohort_analysis
purchase_activity	refined data sheet containing only date from the event_type 'purchase'
first_purchase	shows the initial date a user has ever interacted wth th website
cohort_analysis	Acquisition cohorts based on the month of a user's first purchase tracked month by month
raw_user_activity	untouched data sheet

Legend

Summaries
Analysis
Calculations
Raw Data

Executive Summary

Results	Synopsis
Conversion Funnel	The three funnel stages in this analysis are 'view', 'shopping_cart' and 'purchase'. Our Analysis shows that from the first stage to the last stage the total conversion rate is 10%. From the total number of viewers, 29% put products in their shopping cart, and 36% of those proceed to purchase the product.
Retention Rates	The analysis shows a clear decline in retention rates over time. The September 2020 cohort had the highest initial retention at 12.5%, but retention steadily dropped in later months and by early 2021 fell to 0% by the second month. This suggests a need to improve customer satisfaction or re-engagement strategies to retain new customers effectively. The limits of this analysis: not enough data from 2021 to conclude on the retention rates.

Analysis	Description
Raw Data	The data used for analysis is an activity log showcasing each time a user views a product page, opens their shopping cart, or completes a purchase. The data ranges from 2020-09 until 2021-02. Colums used for analysis and calculations were, user_id, event_type and event_date.
Conversion Funnel	In order to calculate the conversion rates, a pivot table under the name 'conversion_funnel' was created. Data used was event_type as rows and the unique count of user_id as Values. The pivot table was followed by two calculation; the total conversion_rate and the conversion_to_the_next_step.
Retention Rates	In order to calculate retention rates, we decided to form 6 distinct cohorts based on the month in which customers made their first purchase, ranging from 2020-09 until 2021-02. The calculation for the retention rates was then performed by dividing the unique count of user_id from a certain cohort_age (1-4) by the unique count od user_id from the first purchase_month (cohort_age 0).

event_type	COUNTUNIQUE of user_id	total_conversion	conversion_to_the_next_step
view	10453	100%	100%
shopping_cart	3036	29%	29%
purchase	1081	10%	36%

Retention_rates	cohort_age			
first_purchase_month	1	2	3	4
2020-09	12.5%	6.3%	0.0%	3.1%
2020-10	7.5%	3.7%	0.5%	0.5%
2020-11	5.5%	2.9%	0.4%	0.0%
2020-12	4.4%	3.0%	0.0%	0.0%
2021-01	6.9%	0.0%	0.0%	0.0%
2021-02	0.0%	0.0%	0.0%	0.0%

user_id	event_type	event_date	first_purchase_date	event_month	first_purchase_	cohort_age
a1515915625519397646	purchase	2020-09-24	2020-09-24	2020-09	2020-09	0
a1515915625519397646	purchase	2020-09-24	2020-09-24	2020-09	2020-09	0
a1515915625519397646	purchase	2020-09-24	2020-09-24	2020-09	2020-09	0
a1515915625358482476	purchase	2020-09-24	2020-09-24	2020-09	2020-09	0
a1515915625519463641	purchase	2020-09-24	2020-09-24	2020-09	2020-09	0
a1515915625519463641	purchase	2020-09-24	2020-09-24	2020-09	2020-09	0
a1515915625519463641	purchase	2020-09-24	2020-09-24	2020-09	2020-09	0
a1515915625503751892	purchase	2020-09-24	2020-09-24	2020-09	2020-09	0
a1515915625519463641	purchase	2020-09-24	2020-09-24	2020-09	2020-09	0
a1515915625385888878	purchase	2020-09-25	2020-09-25	2020-09	2020-09	0
a1515915625385888878	purchase	2020-09-25	2020-09-25	2020-09	2020-09	0
a1515915625519762021	purchase	2020-09-25	2020-09-25	2020-09	2020-09	0
a1515915625519762021	purchase	2020-09-25	2020-09-25	2020-09	2020-09	0
a1515915625520029989	purchase	2020-09-26	2020-09-26	2020-09	2020-09	0
a1515915625520049345	purchase	2020-09-26	2020-09-26	2020-09	2020-09	0
a1515915625520070184	purchase	2020-09-26	2020-09-26	2020-09	2020-09	0
a1515915625520070184	purchase	2020-09-26	2020-09-26	2020-09	2020-09	0
a1515915625520070184	purchase	2020-09-26	2020-09-26	2020-09	2020-09	0
a1515915625520227072	purchase	2020-09-27	2020-09-27	2020-09	2020-09	0
a1515915625520227072	purchase	2020-09-27	2020-09-27	2020-09	2020-09	0
a1515915625520227072	purchase	2020-09-28	2020-09-27	2020-09	2020-09	0
a1515915625371158307	purchase	2020-09-28	2020-09-28	2020-09	2020-09	0
a1515915625371158307	purchase	2020-09-28	2020-09-28	2020-09	2020-09	0
a1515915625371158307	purchase	2020-09-28	2020-09-28	2020-09	2020-09	0
a1515915625371158307	purchase	2020-09-28	2020-09-28	2020-09	2020-09	0
a1515915625371158307	purchase	2020-09-28	2020-09-28	2020-09	2020-09	0
a1515915625520413119	purchase	2020-09-28	2020-09-28	2020-09	2020-09	0
a1515915625520413119	purchase	2020-09-28	2020-09-28	2020-09	2020-09	0
a1515915625520413119	purchase	2020-09-28	2020-09-28	2020-09	2020-09	0
a1515915625520413119	purchase	2020-09-28	2020-09-28	2020-09	2020-09	0
a1515915625520413119	purchase	2020-09-28	2020-09-28	2020-09	2020-09	0

user_id	event_type	event_date	first_purchase_date	event_month	first_purchase_	cohort_age
a1515915625519991781	purchase	2020-09-28	2020-09-28	2020-09	2020-09	0
a1515915625519991781	purchase	2020-09-28	2020-09-28	2020-09	2020-09	0
a1515915625519991781	purchase	2020-09-28	2020-09-28	2020-09	2020-09	0
a1515915625519991781	purchase	2020-09-28	2020-09-28	2020-09	2020-09	0
a1515915625520433043	purchase	2020-09-28	2020-09-28	2020-09	2020-09	0
a1515915625520569929	purchase	2020-09-28	2020-09-28	2020-09	2020-09	0
a1515915625520569929	purchase	2020-09-28	2020-09-28	2020-09	2020-09	0
a1515915625520569929	purchase	2020-09-28	2020-09-28	2020-09	2020-09	0
a1515915625520569929	purchase	2020-09-28	2020-09-28	2020-09	2020-09	0
a1515915625503751892	purchase	2020-09-28	2020-09-24	2020-09	2020-09	0
a1515915625503751892	purchase	2020-09-28	2020-09-24	2020-09	2020-09	0
a1515915625520609702	purchase	2020-09-28	2020-09-28	2020-09	2020-09	0

user_id	MIN of event_date
a1515915625355	2020-11-04
a1515915625355	2020-09-29
a1515915625358	2020-09-24
a1515915625359	2020-11-20
a1515915625368	2020-11-01
a151591562537	2020-09-28
a1515915625385	2020-10-01
a1515915625385	2020-09-25
a1515915625393	2020-11-03
a1515915625395	2020-10-17
a1515915625403	2020-10-11
a1515915625413	2020-10-09
a1515915625415	2020-10-03
a1515915625466	2020-10-10
a1515915625469	2020-10-04
a1515915625476	2020-10-10
a1515915625483	2020-11-09
a1515915625486	2020-10-05
a1515915625503	2020-09-24
a1515915625505	2020-09-29
a1515915625507	2020-11-08
a1515915625507	2020-10-13
a1515915625509	2020-12-20
a1515915625509	2020-10-03
a1515915625510	2020-10-21
a1515915625510	2020-11-17
a151591562551	2020-10-08
a151591562551	2020-09-29
a1515915625513	2020-10-15

COUNTUNIQUE of user_id	cohort_age				
first_purchase_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				

user_id	event_type	category_code	brand	price	event_date	
a1515915625519014356	view	computers.peripherals.printer	pantum	113.81	2020-09-24	
a1515915625519392599	view	stationery.cartrige	lomond	8.35	2020-09-24	
a1515915625369253995	view	construction.tools.welding		250.63	2020-09-24	
a1515915625369253995	view	construction.tools.welding		250.63	2020-09-24	
a1515915625519410002	view	computers.desktop	steelseries	58.49	2020-09-24	
a1515915625519413944	view	appliances.kitchen.microwave	samsung	130.11	2020-09-24	
a1515915625519397646	view	computers.peripherals.camera	logitech	123.35	2020-09-24	
a1515915625519397646	shopping_cart	computers.peripherals.camera	logitech	123.35	2020-09-24	
a1515915625519397646	purchase	computers.peripherals.camera	logitech	123.35	2020-09-24	
a1515915625519397646	view	computers.peripherals.camera	logitech	123.35	2020-09-24	
a1515915625519417750	view	computers.network.router	d-link	53.14	2020-09-24	
a1515915625519397646	shopping_cart	computers.peripherals.camera	logitech	123.35	2020-09-24	
a1515915625519397646	purchase	computers.peripherals.camera	logitech	123.35	2020-09-24	
a1515915625519397646	purchase	computers.peripherals.camera	logitech	123.35	2020-09-24	
a1515915625358482476	view	computers.components.tv_tuner	perfeo	19.49	2020-09-24	
a1515915625358482476	shopping_cart	computers.components.tv_tuner	perfeo	19.49	2020-09-24	
a1515915625358482476	purchase	computers.components.tv_tuner	perfeo	19.49	2020-09-24	
a1515915625519443407	view	computers.components.motherboard	asrock	77.73	2020-09-24	
a1515915625519443407	shopping_cart	computers.components.motherboard	asrock	77.73	2020-09-24	
a1515915625519443407	view	computers.components.motherboard	asrock	77.73	2020-09-24	
a1515915625519446240	view		formula	35.54	2020-09-24	
a1515915625519452732	view	computers.notebook	hp	27.62	2020-09-24	
a1515915625519460662	view	computers.peripherals.joystick	logitech	162.51	2020-09-24	
a1515915625519460662	shopping_cart	computers.peripherals.joystick	logitech	162.51	2020-09-24	
a1515915625519460662	view	computers.peripherals.joystick	logitech	162.51	2020-09-24	
a1515915625519460662	view	computers.peripherals.joystick	logitech	193.98	2020-09-24	
a1515915625519463641	view	stationery.cartrige	hp	71.02	2020-09-24	
a1515915625519463641	view	stationery.cartrige	hp	71.02	2020-09-24	
a1515915625517481778	view			29.24	2020-09-24	