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Sheet Name	Description
Executive Summary	Completed synopsis for results and description for analysis.
Table of Contents	Updated the sheet names for Table of Contents table to include Executive Summary, first_purchase, cohort_analysis, conversion_funnel, retention_rates, purchase_activity, and raw data descriptions.
First_purchase	Created a pivot table to find first purchase date for users.
Cohort_analysis	Created a pivot table based on the month in which customers made their first purchase.
Conversion_funnel	Created pivot table to find unique users for each stage of funnel. Calculated total conversion rates and conversion rates to the next step.
Retention_rates	Created retention rates formula to find what percent of customers made additional purchases in following months 1-4.
Purchase_activity	Created a new sheet of information to filter purchases. Created a column to calculate the first purchase date for users. Created columns and calculations for event month, first purchase month, and cohort age.
Raw_data_activity	Copied the raw data sheet to make the purchase_activity sheet to perform calculations and gather insights for analysis.
Legend	
Summaries	
Analysis	
Calculations	
Raw Data	

Executive Summary

Executive Summary	
Results	Synopsis
Conversion Funnel	After using the conversion rate formula, we found that 29% of users add items to cart after viewing the page. While only 19% of users make a purchase after viewing the page. We found that 30% of users who add items to cart will make a purchase.
Retention Rates	Repeat and loyalty customers are falling at a rapid rate. In the September cohort only 13% of users made repeat purchases after their first month leading to only 3% of repeat customers in their 4th month. In the February cohort, 0% of users made repeat purchases.
Analysis	Description
Raw Data	The raw data was extremely helpful in this analysis. No insights could have been made without it. The data was simple an straightforward. It gave the price and date of activity. It categorized the types of purchases to inform which stage each user was at in the funnel process. I used the user ids, event types, and event dates columns.
Conversion Funnel	For the conversion rates I used the COUNTUNIQUE formula in the pivot table to calculate the number of unique user ids to find the percentage of users from each stage of the funnel and from stage 1 (pageview) to stage 3 (purchase) to track percentages.
Retention Rates	Cohorts were formed according to the first month of purchase and 4 months after the users made their first purchase to track customer retention and activity of forming loyal users. Progress in this area needs focus and improvement. Repeat customers are nonexistent for this company. Over a 6 month period 0.3% of users four months later are not buying from this company. Retention rates were calculated on a month to month basis to determine the number of customers that were still buying from month 1-4 after making their first purchase.

Conversion Rate

event_type		COUNTUNIQUE of user_id		total CR		CR to next step	
view		10453					
shopping_cart		3836	25%		25%		
purchase		181	10%		36%		
Grand Total		10459					

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First Purchase

user_id		MIN of event_date	
a151591562535		2020-11-04	
a151591562535		2020-09-29	
a151591562535		2020-09-24	
a151591562535		2020-11-20	
a151591562536		2020-11-01	
a151591562537		2020-09-28	
a151591562538		2020-10-01	
a151591562538		2020-09-25	
a151591562539		2020-11-03	
a151591562539		2020-10-17	
a151591562540		2020-10-11	
a151591562541		2020-10-09	
a151591562541		2020-10-03	
a151591562546		2020-10-10	
a151591562546		2020-10-04	
a151591562547		2020-10-10	
a151591562548		2020-11-09	
a151591562548		2020-10-05	
a151591562550		2020-09-24	
a151591562550		2020-09-29	
a151591562550		2020-11-08	
a151591562550		2020-10-13	
a151591562550		2020-12-20	
a151591562550		2020-10-03	
a151591562551		2020-10-21	
a151591562551		2020-11-17	
a151591562551		2020-10-08	
a151591562551		2020-09-28	
a151591562551		2020-10-15	
a151591562551		2020-10-18	
a151591562551		2021-01-07	

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Cohort Analysis

A1	COUNTUNIQUE of user_id																										
1	COUNTUNIQUE of user_id	cohort_age																									
2	first_purchase_month	0	1	2	3	4																					
3	2020-09	32	4	2		1																					
4	2020-10	187	14	7	1	1																					
5	2020-11	238	13	7	1																						
6	2020-12	203	9	5																							
7	2021-01	233	16																								
8	2021-02	188																									

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Retention Rates

A1:E1	Cohort Retention Rates																										
1	Cohort Retention Rates																										
2		1	2	3	4																						
3	2020-09	13%	6%	0%	3%																						
4	2020-10	7%	4%	1%	1%																						
5	2020-11	5%	3%	0%	0%																						
6	2020-12	4%	3%	0%	0%																						
7	2021-01	7%	0%	0%	0%																						
8	2021-02	0%	0%	0%	0%																						

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Executive Summary

Conversion_funnel

First_purchase

Cohort_analysis

Retention_rates

Purchase_activity

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Purchase Activity

A1 user_id													
1	A	B	C	D	E	F	G	H	I	J	K	L	M
user_id	event_type	category_code	brand	price	event_date	first_purchase_date	event_month	first_purchase_month	cohort_age				
2	a1515915625519307646	purchase	computers peripherals camera	logitech	123.35	2020-09-24	2020-09-24	2020-09	2020-09				0
3	a1515915625519307646	purchase	computers peripherals camera	logitech	123.35	2020-09-24	2020-09-24	2020-09	2020-09				0
4	a1515915625519307646	purchase	computers peripherals camera	logitech	123.35	2020-09-24	2020-09-24	2020-09	2020-09				0
5	a15159156255358482476	purchase	computers components tv_tuner	perfeo	19.49	2020-09-24	2020-09-24	2020-09	2020-09				0
6	a1515915625519443641	purchase	stationery cartridge	hp	71.02	2020-09-24	2020-09-24	2020-09	2020-09				0
7	a1515915625519443641	purchase	stationery cartridge	hp	71.02	2020-09-24	2020-09-24	2020-09	2020-09				0
8	a1515915625519443641	purchase	stationery cartridge	hp	71.02	2020-09-24	2020-09-24	2020-09	2020-09				0
9	a15159156255037311802	purchase	appliances environment vacuum	topcon	35.87	2020-09-24	2020-09-24	2020-09	2020-09				0
10	a1515915625519443641	purchase	stationery cartridge	hp	71.02	2020-09-24	2020-09-24	2020-09	2020-09				0
11	a1515915625538588878	purchase	stationery cartridge	cactus	24.73	2020-09-25	2020-09-25	2020-09	2020-09				0
12	a1515915625538588878	purchase	stationery cartridge	cactus	24.73	2020-09-25	2020-09-25	2020-09	2020-09				0
13	a1515915625519762021	purchase		kilfort	140.63	2020-09-25	2020-09-25	2020-09	2020-09				0
14	a1515915625519762021	purchase		kilfort	140.63	2020-09-25	2020-09-25	2020-09	2020-09				0
15	a1515915625520029909	purchase	stationery cartridge	hp	29.57	2020-09-26	2020-09-26	2020-09	2020-09				0
16	a1515915625520049345	purchase	auto accessories player	kernwood	104.86	2020-09-26	2020-09-26	2020-09	2020-09				0
17	a1515915625520070184	purchase	computers peripherals printer	epson	647.29	2020-09-26	2020-09-26	2020-09	2020-09				0
18	a1515915625520070184	purchase	computers peripherals printer	epson	647.29	2020-09-26	2020-09-26	2020-09	2020-09				0
19	a1515915625520070184	purchase	computers peripherals printer	epson	647.29	2020-09-26	2020-09-26	2020-09	2020-09				0
20	a1515915625520227072	purchase	computers peripherals wifi	ubiquiti	155.43	2020-09-27	2020-09-27	2020-09	2020-09				0
21	a1515915625520227072	purchase	computers peripherals wifi	ubiquiti	155.43	2020-09-27	2020-09-27	2020-09	2020-09				0
22	a1515915625520227072	purchase	computers peripherals wifi	ubiquiti	155.43	2020-09-27	2020-09-27	2020-09	2020-09				0
23	a1515915625371158307	purchase	stationery cartridge	cactus	20.14	2020-09-28	2020-09-28	2020-09	2020-09				0
24	a1515915625371158307	purchase	stationery cartridge	cactus	20.14	2020-09-28	2020-09-28	2020-09	2020-09				0
25	a1515915625371158307	purchase	stationery cartridge	cactus	20.14	2020-09-28	2020-09-28	2020-09	2020-09				0
26	a1515915625371158307	purchase	computers peripherals printer	canon	192.86	2020-09-28	2020-09-28	2020-09	2020-09				0
27	a1515915625371158307	purchase	stationery cartridge	cactus	20.14	2020-09-28	2020-09-28	2020-09	2020-09				0
28	a1515915625520413119	purchase	stationery cartridge	nv-print	17.62	2020-09-28	2020-09-28	2020-09	2020-09				0
29	a1515915625520413119	purchase	stationery cartridge	nv-print	17.62	2020-09-28	2020-09-28	2020-09	2020-09				0
30	a1515915625520413119	purchase	stationery cartridge	nv-print	17.62	2020-09-28	2020-09-28	2020-09	2020-09				0
31	a1515915625520413119	purchase	stationery cartridge	nv-print	17.62	2020-09-28	2020-09-28	2020-09	2020-09				0
32	a1515915625520413119	purchase	stationery cartridge	nv-print	17.62	2020-09-28	2020-09-28	2020-09	2020-09				0

Raw User Activity

A1 user_id													
1	A	B	C	D	E	F	G						
user_id	event_type	category_code	brand	price	event_date								
2	a1515915625519014356	view	computers peripherals printer	phantum	113.81	2020-09-24							
3	a1515915625519302599	view	stationery cartridge	lotomond	8.35	2020-09-24							
4	a1515915625369253995	view	construction tools welding		250.63	2020-09-24							
5	a1515915625369253995	view	construction tools welding		250.63	2020-09-24							
6	a1515915625519410002	view	computers desktop	steelseries	58.49	2020-09-24							
7	a1515915625519413944	view	appliances kitchen microwave	samsung	130.11	2020-09-24							
8	a1515915625519307646	view	computers peripherals camera	logitech	123.35	2020-09-24							
9	a1515915625519307646	shopping_cart	computers peripherals camera	logitech	123.35	2020-09-24							
10	a1515915625519307646	purchase	computers peripherals camera	logitech	123.35	2020-09-24							
11	a1515915625519307646	view	computers peripherals camera	logitech	123.35	2020-09-24							
12	a1515915625519417750	view	computers network router	d-link	53.14	2020-09-24							
13	a1515915625519307646	shopping_cart	computers peripherals camera	logitech	123.35	2020-09-24							
14	a1515915625519307646	purchase	computers peripherals camera	logitech	123.35	2020-09-24							
15	a1515915625519307646	purchase	computers peripherals camera	logitech	123.35	2020-09-24							
16	a15159156255358482476	view	computers components tv_tuner	perfeo	19.49	2020-09-24							
17	a1515915625358482476	shopping_cart	computers components tv_tuner	perfeo	19.49	2020-09-24							
18	a1515915625519443407	view	computers components motherboard	asrock	77.73	2020-09-24							
19	a1515915625519443407	shopping_cart	computers components motherboard	asrock	77.73	2020-09-24							
20	a1515915625519443407	view	computers components motherboard	asrock	77.73	2020-09-24							
21	a1515915625519446240	view	computers notebook	formula	35.54	2020-09-24							
22	a1515915625519452732	view	computers notebook	hp	27.62	2020-09-24							
23	a1515915625519460662	view	computers peripherals joystick	logitech	162.51	2020-09-24							
24	a1515915625519460662	shopping_cart	computers peripherals joystick	logitech	162.51	2020-09-24							
25	a1515915625519460662	view	computers peripherals joystick	logitech	162.51	2020-09-24							
26	a1515915625519460662	view	computers peripherals joystick	logitech	163.96	2020-09-24							
27	a1515915625519463641	view	stationery cartridge	hp	71.02	2020-09-24							
28	a1515915625519463641	view	stationery cartridge	hp	71.02	2020-09-24							
29	a1515915625517481778	view	stationery cartridge	hp	29.24	2020-09-24							
30	a1515915625519463641	shopping_cart	stationery cartridge	hp	71.02	2020-09-24							
31	a1515915625517481778	view	stationery cartridge	hp	29.24	2020-09-24							