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Sheet Name	Description
Executive Summary & Analysis	Summary of findings and analytical techniques utilized.
Purchase Activity	Processed Data which includes first purchase dates and cohort ages.
First Purchases	Table of first Purchase dates.
Conversion Funnel	Conversion funnel calculations including total conversion and conversion to next step rates.
Cohort Analysis	Calculations of first purchase month and cohort ages to provide retention metrics.
Retention Rates Pivot Table	Table which conveys retention metrics for each cohort month-by-month
Retention Rates	Final table of retention metrics which includes all data provided from 1-4 month retention.
Raw Data	Raw Data

Legend

Summaries
Analysis
Calculations
Raw Data

Executive Summary (Sheet)

Executive Summary

Results:	Synopsis:
Conversion Funnel:	The data reveals that the website achieves a total conversion rate of 10.43%, effectively converting product page views into purchases. Additionally, it boasts a conversion-to-next-stage rate of 35.61% for users who have added items to their shopping cart, moving on to successfully completing their purchases.
Retention Rates:	The data reveals a consistent decline in retention rates over time, with the highest return rates occuring in the first month and significant drop-offs in subsequent months.

Analysis:	Description:
Raw Data:	The three most essential datasets derived from the raw data for this analysis were user IDs, event types, and event dates. The event dates encompassed a span of five months (from September 2020 to January 2021), allowing all conclusions regarding the conversion funnel and retention rates to be based on this timeframe. The event types included pageviews, additions to the shopping cart, and purchases, which facilitated the creation of a conversion funnel to evaluate the effectiveness of the website in converting product page views into actual sales. User IDs, along with purchase data and event dates, were employed to establish acquisition cohorts according to the month of a user's initial purchase, enabling the tracking of cohort retention metrics on a month-by-month basis.
Conversion Funnel:	The conversion funnel was designed to evaluate the effectiveness of the website in converting product page views into actual purchases. This funnel provides valuable insights into user interaction with the site. It was developed by tracking unique user IDs at each stage, following a logical sequence from the initial page view to adding items to the shopping cart, and finally, making purchases. A total conversion rate was calculated to determine the percentage of users who viewed the site and subsequently made purchases. Additionally, the conversion-to-next-stage rate was assessed to understand how many users who added items to their cart proceeded to complete a purchase. The findings revealed an total conversion rate of 29.04% of customers adding items to their shopping cart and 10.43% ultimately made a purchase. The conversion-to-next-step rate from those who added an item to their cart that ultimately purchased the product was 35.61%.
Retention Rates:	A cohort analysis was conducted to monitor customer retention metrics on a monthly basis. This involved examining all purchase records to identify the first purchases made by each unique user and calculating the number of those users who returned in subsequent months to make additional purchases. The findings indicated a steady decline in retention over time, with the highest return rates observed in the initial month and notable decreases in the following months. The September 2020 cohort demonstrated the strongest retention, with 12.50% of customers returning in the first month and 6.25% in the second month. However, later cohorts experienced a gradual decline in retention rates, with December 2020 reflecting only 4.43%

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	user_id	event_type	category_code	brand	price	event_date	first_purchase_date	event_month	first_purchase_month	cohort_age				
2	a1515915625519397646	purchase	computers.peripherals.camera	logitech	123.35	2020-09-24	2020-09-24	2020-09	2020-09	0				
3	a1515915625519397646	purchase	computers.peripherals.camera	logitech	123.35	2020-09-24	2020-09-24	2020-09	2020-09	0				
4	a1515915625519397646	purchase	computers.peripherals.camera	logitech	123.35	2020-09-24	2020-09-24	2020-09	2020-09	0				
5	a1515915625358482476	purchase	computers.components.tv_tuner	perfeo	19.49	2020-09-24	2020-09-24	2020-09	2020-09	0				
6	a1515915625519463641	purchase	stationery.cartrige	hp	71.02	2020-09-24	2020-09-24	2020-09	2020-09	0				
7	a1515915625519463641	purchase	stationery.cartrige	hp	71.02	2020-09-24	2020-09-24	2020-09	2020-09	0				
8	a1515915625519463641	purchase	stationery.cartrige	hp	71.02	2020-09-24	2020-09-24	2020-09	2020-09	0				
9	a1515915625503751892	purchase	appliances.environment.vacuum	topon	35.87	2020-09-24	2020-09-24	2020-09	2020-09	0				
10	a1515915625519463641	purchase	stationery.cartrige	hp	71.02	2020-09-24	2020-09-24	2020-09	2020-09	0				
11	a1515915625385888878	purchase	stationery.cartrige	cactus	24.73	2020-09-25	2020-09-25	2020-09	2020-09	0				
12	a1515915625385888878	purchase	stationery.cartrige	cactus	24.73	2020-09-25	2020-09-25	2020-09	2020-09	0				
13	a1515915625519762021	purchase		kitfort	140.63	2020-09-25	2020-09-25	2020-09	2020-09	0				
14	a1515915625519762021	purchase		kitfort	140.63	2020-09-25	2020-09-25	2020-09	2020-09	0				
15	a1515915625520029989	purchase	stationery.cartrige	hp	29.57	2020-09-26	2020-09-26	2020-09	2020-09	0				
16	a1515915625520049345	purchase	auto.accessories.player	kenwood	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	130.73	2020-09-27	2020-09-27	2020-09	2020-09	0				
22	a1515915625520227072	purchase	computers.peripherals.wifi	ubiquiti	155.43	2020-09-28	2020-09-27	2020-09	2020-09	0				
23	a1515915625371158307	purchase	stationery.cartrige	cactus	20.14	2020-09-28	2020-09-28	2020-09	2020-09	0				
24	a1515915625371158307	purchase	stationery.cartrige	cactus	20.14	2020-09-28	2020-09-28	2020-09	2020-09	0				
25	a1515915625371158307	purchase	stationery.cartrige	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.cartrige	cactus	20.14	2020-09-28	2020-09-28	2020-09	2020-09	0				
28	a1515915625520413119	purchase	stationery.cartrige	nv-print	17.62	2020-09-28	2020-09-28	2020-09	2020-09	0				
29	a1515915625520413119	purchase	stationery.cartrige	nv-print	17.62	2020-09-28	2020-09-28	2020-09	2020-09	0				
30	a1515915625520413119	purchase	stationery.cartrige	nv-print	17.62	2020-09-28	2020-09-28	2020-09	2020-09	0				
31	a1515915625520413119	purchase	stationery.cartrige	nv-print	17.62	2020-09-28	2020-09-28	2020-09	2020-09	0				
32	a1515915625520413119	purchase	stationery.cartrige	nv-print	17.62	2020-09-28	2020-09-28	2020-09	2020-09	0				
33	a1515915625519991781	purchase	computers.peripherals.printer		10.78	2020-09-28	2020-09-28	2020-09	2020-09	0				
34	a1515915625519991781	purchase	computers.peripherals.printer		10.78	2020-09-28	2020-09-28	2020-09	2020-09	0				
35	a1515915625519991781	purchase	computers.peripherals.printer		10.84	2020-09-28	2020-09-28	2020-09	2020-09	0				
36	a1515915625519991781	purchase	computers.peripherals.printer		10.78	2020-09-28	2020-09-28	2020-09	2020-09	0				
37	a1515915625520433043	purchase		a-data	17.89	2020-09-28	2020-09-28	2020-09	2020-09	0				
38	a1515915625520569929	purchase	electronics.tablet		12.25	2020-09-28	2020-09-28	2020-09	2020-09	0				
39	a1515915625520569929	purchase	electronics.tablet		12.25	2020-09-28	2020-09-28	2020-09	2020-09	0				
40	a1515915625520569929	purchase	electronics.tablet		12.25	2020-09-28	2020-09-28	2020-09	2020-09	0				
41	a1515915625520569929	purchase	electronics.tablet		12.25	2020-09-28	2020-09-28	2020-09	2020-09	0				
42	a1515915625520569929	purchase	electronics.tablet		12.25	2020-09-28	2020-09-28	2020-09	2020-09	0				

Table of Contents ▾ | Executive Summary ▾ | **Purchase_Activity** ▾ | first_purchase ▾ | conversion_funnel ▾ | cohort_analysis ▾ | retention_rates_pivot_table ▾ | Retention_Rates ▾ | raw_user_activity ▾

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	user_id	MIN of event_date													
2	a1515915625355179497	2020-11-04													
3	a1515915625355805313	2020-09-29													
4	a1515915625358482476	2020-09-24													
5	a1515915625359833886	2020-11-20													
6	a1515915625368479327	2020-11-01													
7	a1515915625371158307	2020-09-28													
8	a1515915625385482819	2020-10-01													
9	a1515915625385888878	2020-09-25													
10	a1515915625393382317	2020-11-03													
11	a1515915625395096356	2020-10-17													
12	a1515915625403460003	2020-10-11													
13	a1515915625413257995	2020-10-09													
14	a1515915625415474736	2020-10-03													
15	a1515915625466195424	2020-10-10													
16	a1515915625469806973	2020-10-04													
17	a1515915625476168209	2020-10-10													
18	a1515915625483402054	2020-11-09													
19	a1515915625486521695	2020-10-05													
20	a1515915625503751892	2020-09-24													
21	a1515915625505008297	2020-09-29													
22	a1515915625507596879	2020-11-08													
23	a1515915625507754425	2020-10-13													
24	a1515915625509677596	2020-12-20													
25	a1515915625509808717	2020-10-03													
26	a1515915625510154735	2020-10-21													
27	a1515915625510668770	2020-11-17													
28	a1515915625511110840	2020-10-08													
29	a1515915625511258041	2020-09-29													
30	a1515915625513773329	2020-10-15													
31	a1515915625515426823	2020-10-18													
32	a1515915625515626372	2021-01-07													
33	a1515915625517871720	2020-11-11													
34	a1515915625518472854	2020-10-14													
35	a1515915625518836854	2020-11-09													
36	a1515915625518894671	2020-10-21													
37	a1515915625519397646	2020-09-24													
38	a1515915625519417750	2020-10-01													
39	a1515915625519463641	2020-09-24													
40	a1515915625519762021	2020-09-25													
41	a1515915625519991781	2020-09-28													
42	a1515915625520029989	2020-09-26													

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Cell: O6

event_type	COUNTUNIQUE of user_id	Total_Conversion	Conversion_to_Next_Stage
view	10453	100.00%	100.00%
shopping_cart	3036	29.04%	29.04%
purchase	1081	10.34%	35.61%

Cell: O5

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				

	first_purchase_m cohort_age	COUNTUNIQUE	starting_cohort_size	Retention_Rates
2020-09	0	32	32	100.00%
2020-09	1	4	32	12.50%
2020-09	2	2	32	6.25%
2020-09	4	1	32	3.13%
2020-10	0	187	187	100.00%
2020-10	1	14	187	7.49%
2020-10	2	7	187	3.74%
2020-10	3	1	187	0.53%
2020-10	4	1	187	0.53%
2020-11	0	238	238	100.00%
2020-11	1	13	238	5.46%
2020-11	2	7	238	2.94%
2020-11	3	1	238	0.42%
2020-12	0	203	203	100.00%
2020-12	1	9	203	4.43%
2020-12	2	6	203	2.96%
2021-01	0	233	233	100.00%
2021-01	1	16	233	6.87%
2021-02	0	188	188	100.00%

Retention Rate

first_purchase_month	% Month_1	Month_2	Month_3	Month_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%	0.42%	--
2020-12	4.43%	2.96%	--	--
2021-01	6.87%	--	--	--

*No Retention Data Available Yet for Cohort Starting: 2021-02

* "--" Represents Data Unavailable As Of Date of Analysis

	A	B	C	D	E	F	G
1	user_id	event_type	category_code	brand	price	event_date	
2	a1515915625519014356	view	computers.peripherals.printer	pantum	113.81	2020-09-24	
3	a1515915625519392599	view	stationery.cartrige	lomond	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	a1515915625519397646	view	computers.peripherals.camera	logitech	123.35	2020-09-24	
9	a1515915625519397646	shopping_cart	computers.peripherals.camera	logitech	123.35	2020-09-24	
10	a1515915625519397646	purchase	computers.peripherals.camera	logitech	123.35	2020-09-24	
11	a1515915625519397646	view	computers.peripherals.camera	logitech	123.35	2020-09-24	
12	a1515915625519417750	view	computers.network.router	d-link	53.14	2020-09-24	
13	a1515915625519397646	shopping_cart	computers.peripherals.camera	logitech	123.35	2020-09-24	
14	a1515915625519397646	purchase	computers.peripherals.camera	logitech	123.35	2020-09-24	
15	a1515915625519397646	purchase	computers.peripherals.camera	logitech	123.35	2020-09-24	
16	a1515915625358482476	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	a1515915625358482476	purchase	computers.components.tv_tuner	perfeo	19.49	2020-09-24	
19	a1515915625519443407	view	computers.components.motherboard	asrock	77.73	2020-09-24	
20	a1515915625519443407	shopping_cart	computers.components.motherboard	asrock	77.73	2020-09-24	
21	a1515915625519443407	view	computers.components.motherboard	asrock	77.73	2020-09-24	
22	a1515915625519446240	view		formula	35.54	2020-09-24	
23	a1515915625519452732	view	computers.notebook	hp	27.62	2020-09-24	
24	a1515915625519460662	view	computers.peripherals.joystick	logitech	162.51	2020-09-24	
25	a1515915625519460662	shopping_cart	computers.peripherals.joystick	logitech	162.51	2020-09-24	
26	a1515915625519460662	view	computers.peripherals.joystick	logitech	162.51	2020-09-24	
27	a1515915625519460662	view	computers.peripherals.joystick	logitech	193.98	2020-09-24	
28	a1515915625519463641	view	stationery.cartrige	hp	71.02	2020-09-24	
29	a1515915625519463641	view	stationery.cartrige	hp	71.02	2020-09-24	
30	a1515915625517481778	view			29.24	2020-09-24	
31	a1515915625519463641	shopping_cart	stationery.cartrige	hp	71.02	2020-09-24	
32	a1515915625517481778	view			29.24	2020-09-24	
33	a1515915625355805313	view	appliances.sewing_machine	janome	470.38	2020-09-24	
34	a1515915625517481778	view			29.24	2020-09-24	
35	a1515915625355805313	view	appliances.sewing_machine	janome	314.97	2020-09-24	
36	a1515915625517481778	view			29.24	2020-09-24	
37	a1515915625519463641	purchase	stationery.cartrige	hp	71.02	2020-09-24	
38	a1515915625519463641	purchase	stationery.cartrige	hp	71.02	2020-09-24	
39	a1515915625519463641	purchase	stationery.cartrige	hp	71.02	2020-09-24	
40	a1515915625519479471	view	electronics.telephone	samsung	798.37	2020-09-24	
41	a1515915625519479471	view	electronics.telephone	leeco	104.13	2020-09-24	
42	a1515915625503751892	view	appliances.environment.vacuum	topon	35.87	2020-09-24	

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