

Adobe Analytics Challenge 2021

Team Mavericks

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Executive Summary

Considering business goal to increase Revenue, We factorise that in three components:

Number of Visits

- ✓ Using Marketing Channel depending on geographies
- ✓ Improving SEO for Disney's website

Conversion Ratio

- ✓ App users engage and purchase more than Web
- ✓ Target abandoned cart using Affiliates within 15 days

Avg. Order Value

- ✓ Converting web users to App user

Strategic & Tactical Recommendations

Creating Ecosystem:

- Use of gamification to increase user engagement
- Presenting products as collectibles

Simplify Checkout:

- Remove clutter at the checkout stage
- Decrease bounce rate of new customers at checkout

Cross-selling item:

- Finding categories to cross selling
- Bundling products to increase avg. order value





Use of Homepage:

- Affiliates should redirect to Homepage
- Homepage has shown highest conversion rate

Understanding Disney's Business and Business Goals

The **WALT DISNEY** Company strives to:
"entertain, inform and inspire people around the globe through the power of unparalleled storytelling, reflecting the iconic brands, creative minds and innovative technologies that make ours the world's premier entertainment company"

by operating through (ann. revenue):

	Parks, Experiences & Products \$16.5 Bn		Studio Entertainment \$9.6Bn
	Direct-to-Consumer & Intl. \$17Bn		Media Networks \$28.4Bn

Parks, Experiences & Products

includes...

Theme Park Admissions (\$7.5Bn)	Parks & Experiences, merch, F&B (\$6Bn)	Resorts & Vacations (\$6.2Bn)	Parks licensing & other (\$2Bn)
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Merchandise is being sold through:



Pronounced importance due to COVID-led restrictions & behavioural changes

Problem Definition

No. of Visits

Conversion Rate

Average Order Value

Recommendations

Factorising Disney's website revenue into components...

Revenue

=

Number of
Visits

×

Conversion
Rate

×

Average
Order Value

Hence, the key objectives are...

Number of Visits:

- Increase number unique customers
- Increase frequency of visits

Conversion Rate:

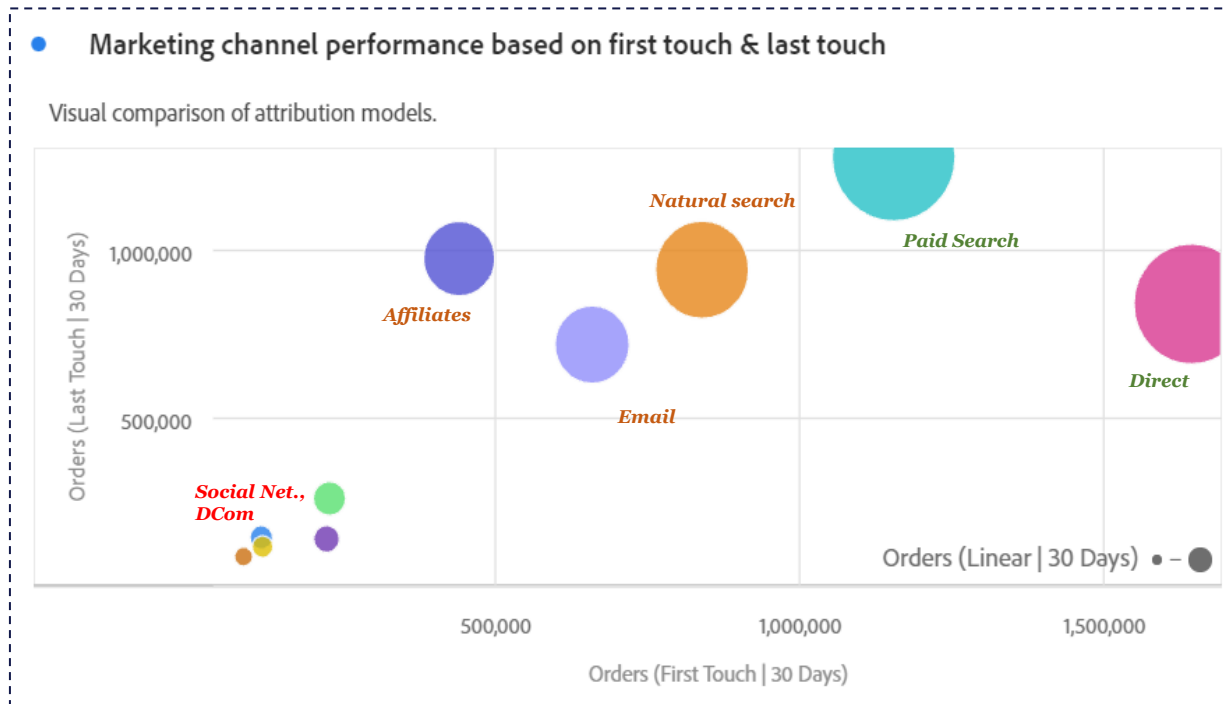
- Add experiential value to purchase process
- Decrease user inconvenience

Average Order Value:

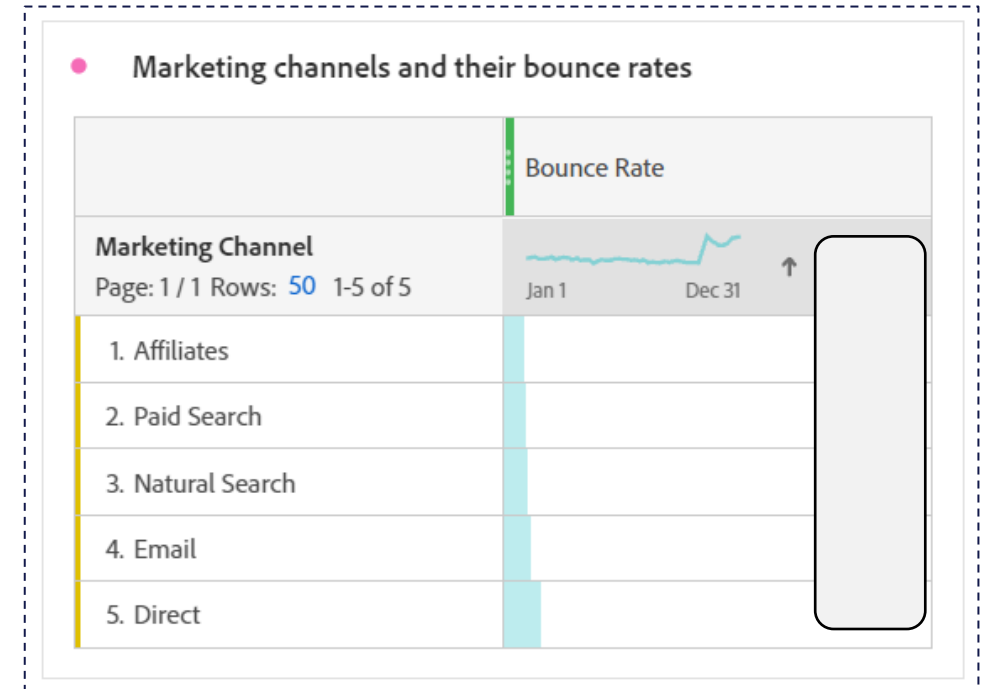
- Number of units per order
- Average price of units sold

Number of Visits

While organic search is best at attracting new customers...



Direct and paid search are two dominant marketing strategies



Though Affiliate's performance on aggregate First and Last Touch is low, it offers lowest bounce rates among prominent channels.

... loyal customers are being channeled in through affiliates. Channel performance also depends on the geography.

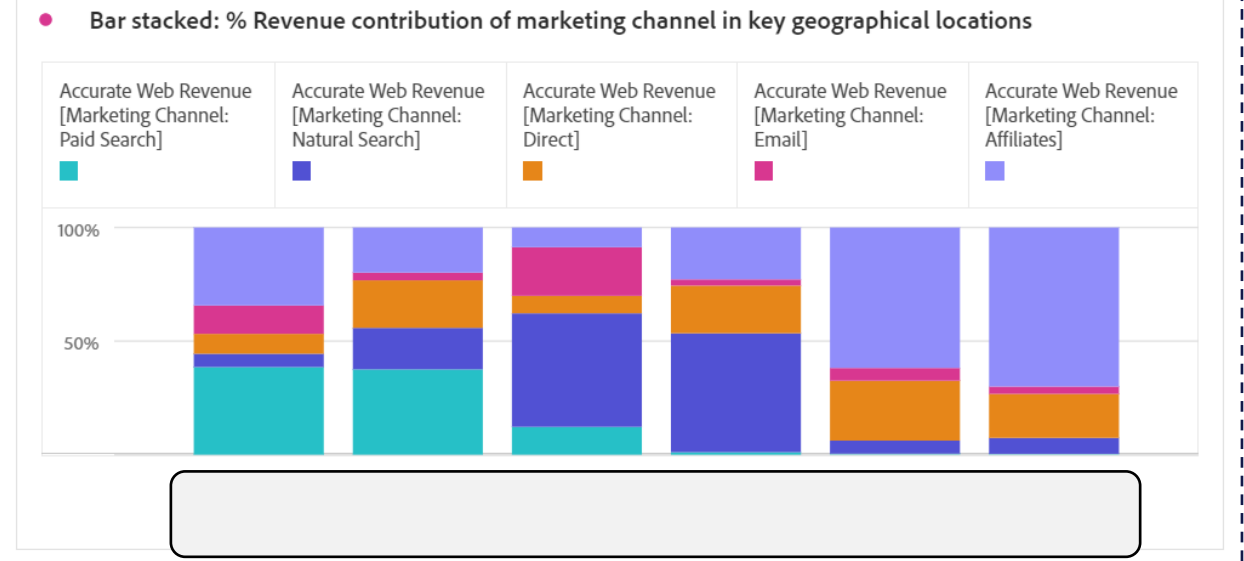


Also, 'Affiliates' and 'Paid Search' channels are best for generating customer loyalty

Time period: Jan 1, 2020 – Dec 31, 2020

There exists a geographical variation in marketing channel.

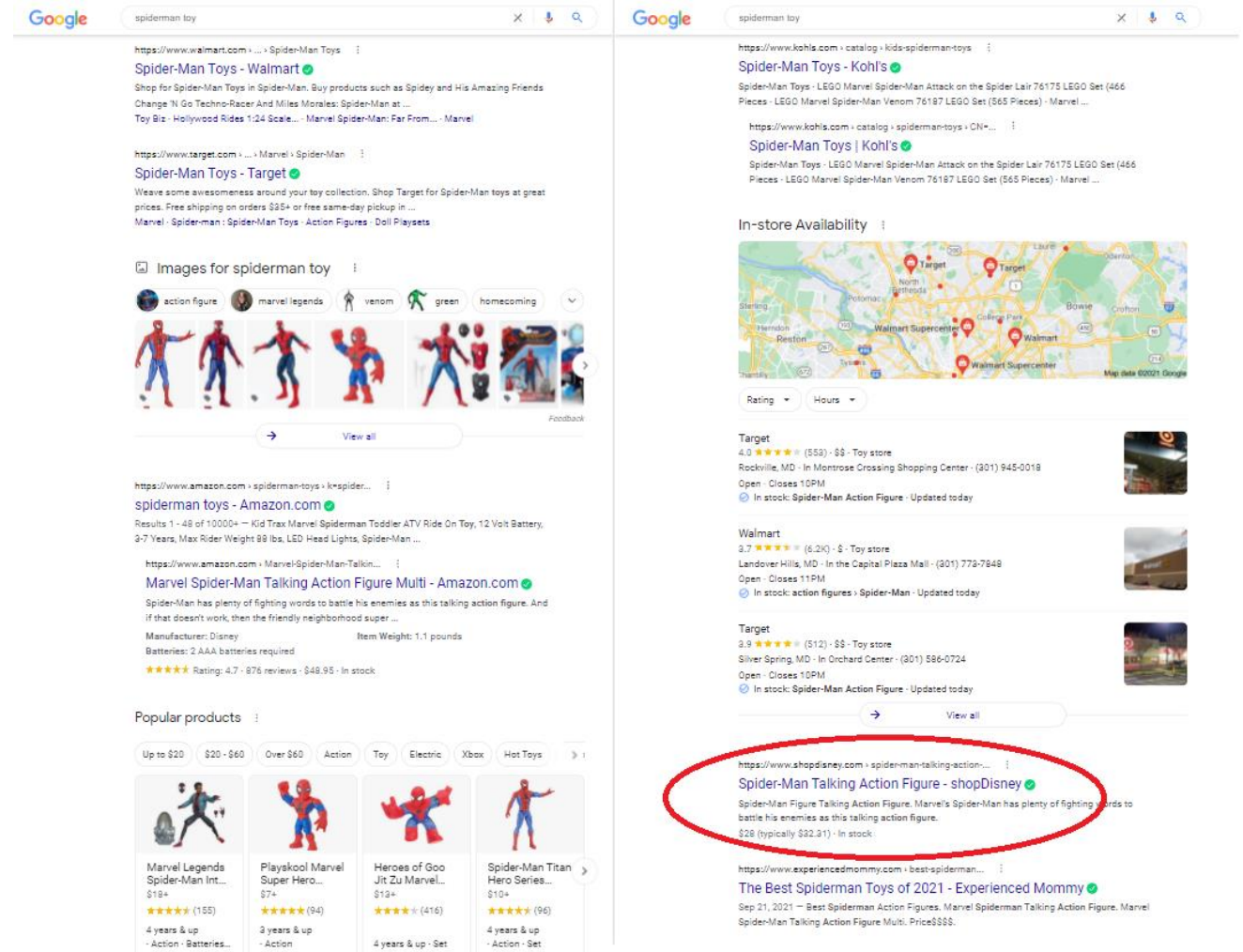
Hence, Disney should customize marketing strategy based on geographical dominance marketing channel..



However, the SEO success of affiliates also means fewer customers landing directly on Disney's websites.

A simple 'spiderman toy' Google search in the US, shows that Disney's website appears at the far end of the page, vastly reducing the chances of a visitor landing directly on it.

Thus, it is suggested to improve SEO operations on Disney's website to increase web visibility.



Conversion Rate

App users engage more.....

App users

App purchasers follow more of a exploratory navigating pattern, iterating between Section and Product pages.
{Appendix 2}
Even if we back trace purchase journey, in Appendix 3, we see a confusing pattern.



Secs spent by an app users annually on Disney app

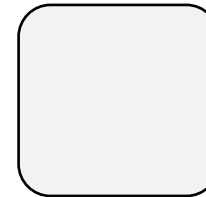


times "app users" visit Disney annually on average

Vs

Web users

Web purchasers follow a more straight forward journey:
{Appendix 4}
Home -> Section / Category -> Product Detail -> My Bag -> Check out



Secs spent by a web users annually on Disney app



times "web users" visit Disney annually on average

Time period: Jan 1, 2020 – Dec 31, 2020

Problem Definition

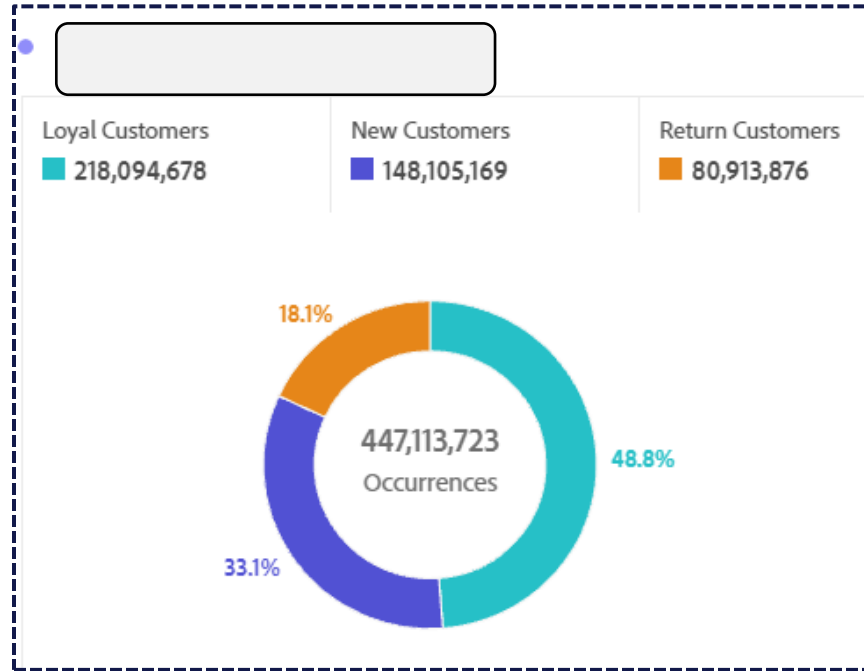
No. of Visits

Conversion Rate

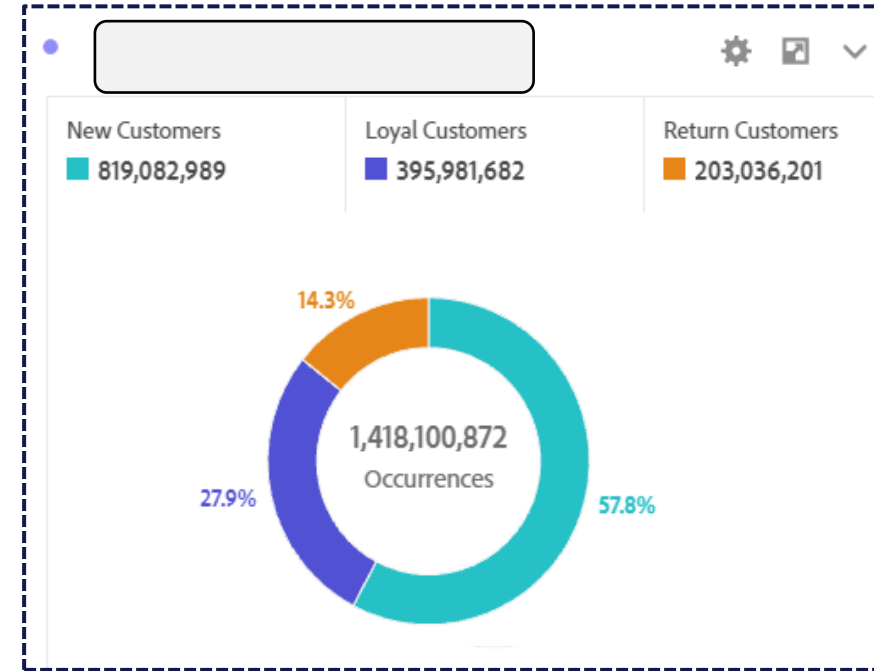
Average Order Value

Recommendations

...and hence they purchase more as compared to web users.



Vs



Further, {Appendix 5} shows App users have less fallout and more conversion compared to web users.

Time period: Jan 1, 2020 – Dec 31, 2020

Problem Definition	No. of Visits	Conversion Rate	Average Order Value	Recommendations
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Loyal customers engage more with the platform

Top metrics differentiating first time purchasers segment vs return & loyal customer segment

	First time purchaser	Returns & loyal customers	Difference score
1. View Wishlist (event 64) / Visitors	0.69	2.99	0.83
2. Sort Engagement (event 35) / Visitors	1.68	6.92	0.78
3. Add to Wishlist (event 65) / Visitors	0.67	2.58	0.78
4. Activity Impressions / Visitors	4.08	12.64	0.77
5. Visits / Visitors	8.87	33.26	0.77
6. Reloads / Visitors	41.83	165.68	0.77
7. Total Seconds Spent / Visitors	4,977.49	17,923.21	0.74
8. Internal Search (event 2) / Visitors	15.92	63.41	0.74
9. infinite scroll extend (event 39) / Visitors	11.76	36.25	0.73
10. Click to Search Bar (event 63) / Visitors	6.74	26.32	0.73
11. Product Recommendation Loaded / Visitors	4.06	12.48	0.73

Loyal customers engage more with the platform as compared to new purchasers.

Further, first time purchasers exploit discount more compared to loyal customers. {Appendix 6}

Number of daily orders are high when average time spent per visit is high.



Problem Definition

No. of Visits

Conversion Rate

Average Order Value

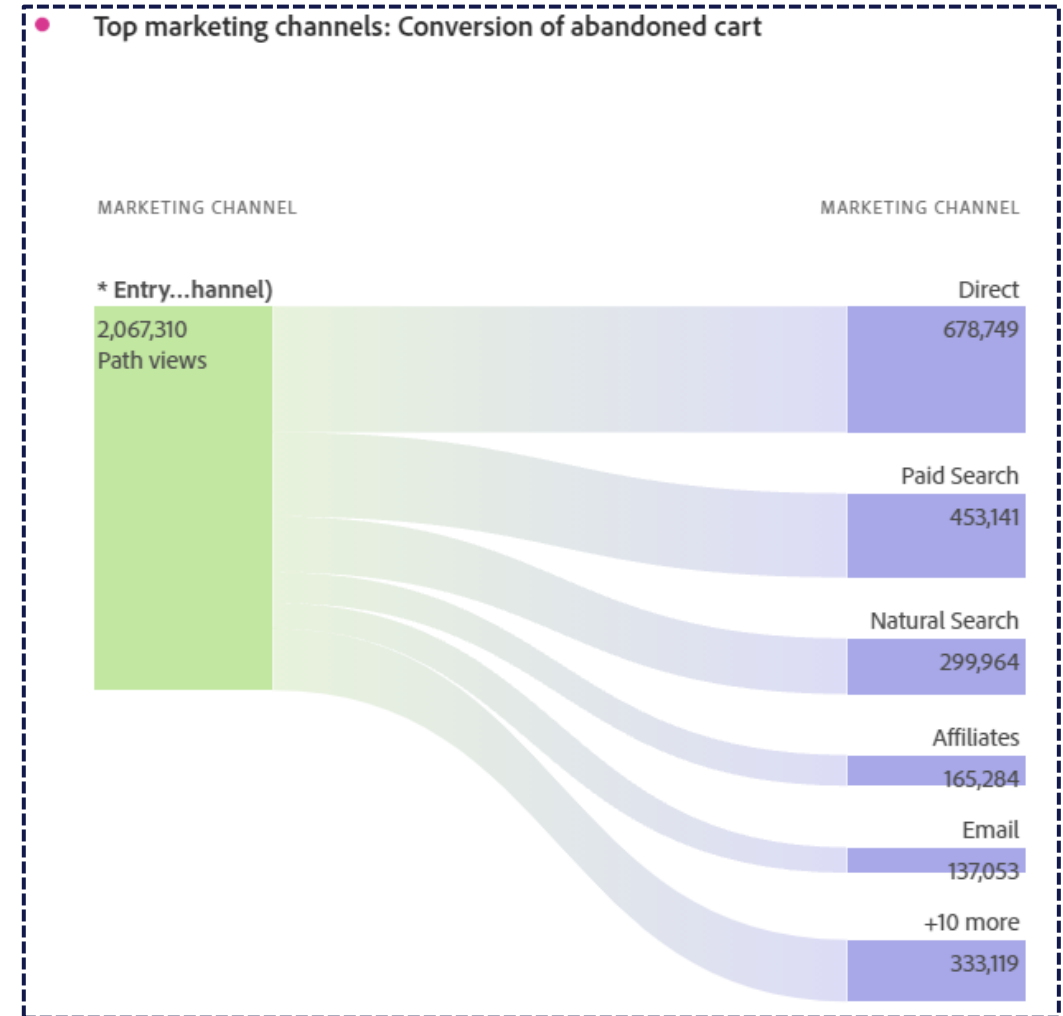
Recommendations

Affiliate marketing channels can convert abandoned carts...

- Appendix 9 shows, customers who converted abandoned cart are more focused (than those who don't abandon the cart)
- Hence if Disney can get them back to site, they are likely to convert.

Most of the abandoned cart purchasers come organically, though Affiliates can lead significant mass to conversion.

- Thus, Disney should target this cohort using Affiliate channel*
- Cohort Analysis in Appendix 8 suggests targeting them within 15 days of cart abandonment*



Time period: Jan 1, 2020 – Dec 31, 2020

Problem Definition

No. of Visits

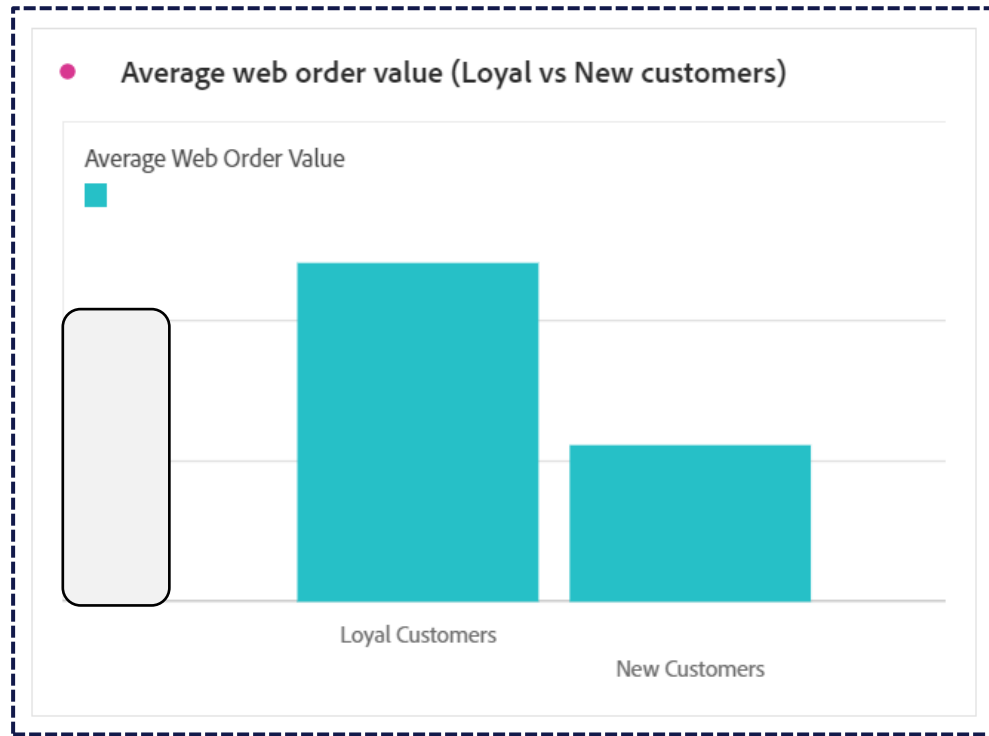
Conversion Rate

Average Order Value

Recommendations

Average Order Value

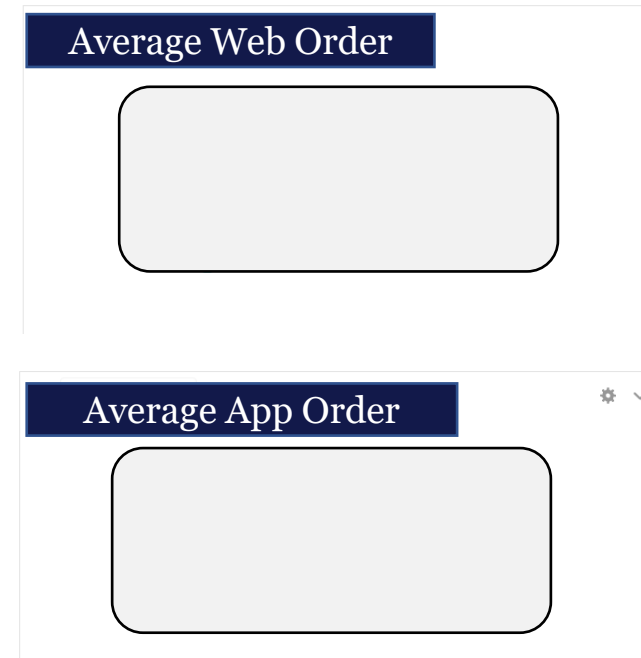
Loyal customers have a larger average web order value, hence nudge customers to buy more often.



As stated earlier, engagement time strongly affects the average number of orders.

Push users to buy through smartphone app to increase engagement time.

The given recommendation is supported by the following average order value statistics:



Time period: Jan 1, 2020 – Dec 31, 2020

Strategic & Tactical Recommendations

i) Build Disney ecosystem and Gamify the experience

- When customer makes a new purchase, she will be exposed to eco-system of related products.
- This will expose and entice customer towards potential purchases, which will act as collectibles

Challenges can be added to increase user engagement on the Mobile App.

Create a leader board based on user purchases and pursued challenges

Result:

1. Higher discovery of products
2. Higher user engagement



Total Leaderboard

All Time ▾

All ☐ Friends ☒



Rozkyczi
Score: 4,396

👑 Rank 1



joshtheboss6912
Score: 730

👑 Rank 2



ValiantCleric5709
Score: 221

👑 Rank 3



AuspiciousCard89366
Score: 181

Rank 4



HypnoticBlade78605
Score: 141

Rank 5

Problem Definition

No. of Visits

Conversion Rate

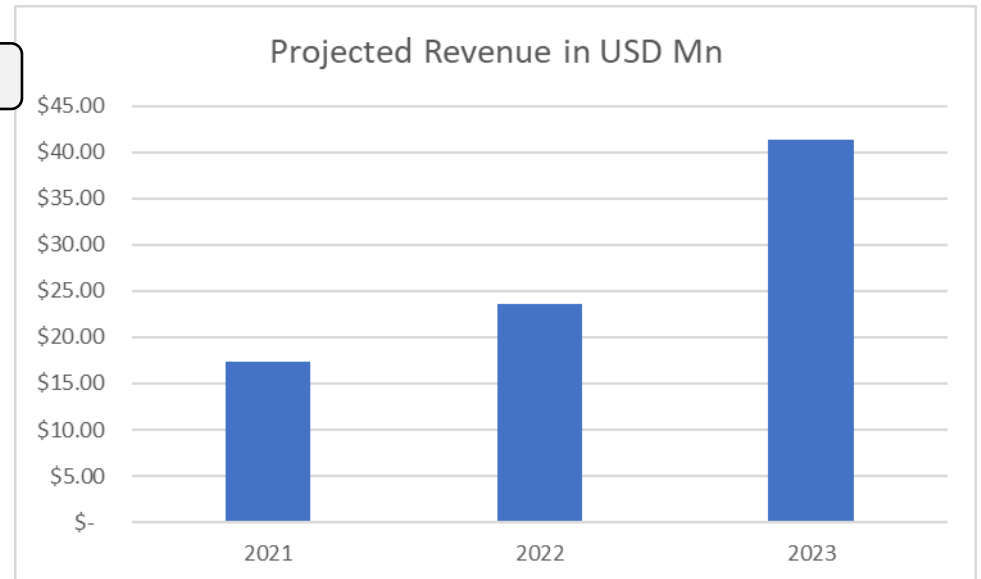
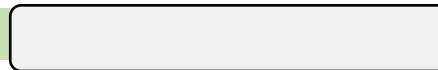
Average Order Value

Recommendations

i) Revenue Impact of Gamification

		<u>Assumptions / Source</u>
Expected Increase in Time Spent on App	37%	Refer Appendix 17
Initial Average time spent	450 s	
Average Number of Orders per day	11938	
Change in Avg. Number of Orders per unit increas	100	Refer Appendix 18
Increase in Avg Time Spent	164.25	
Increase in Avg Number of Orders per Day	16425	

Increase in revenue in 2 years



Problem Definition

No. of Visits

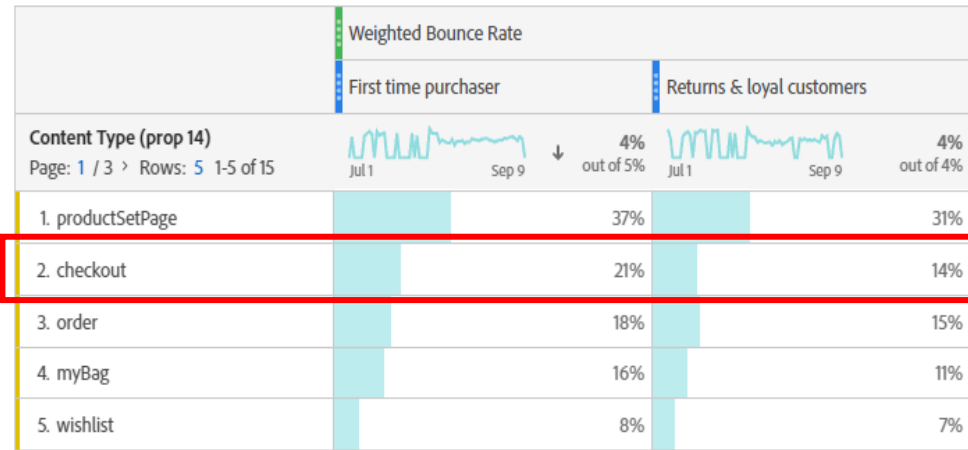
Conversion Rate

Average Order Value

Recommendations

ii) De-Clutter the check out process

Bounce rate: First time purchasers vs loyal customers



Bounce rate at Checkout page is significantly higher for first customer xx% than loyal customers yy%

1 Shipping

Enter Your Shipping Address

Country/Region*
United States

First Name* Last Name*

Address 1*

Address 2

Zip Code* Your city and state will fill in once you enter your ZIP code

Phone Number*

Gift Order

☐ This order is a gift

Choose a Delivery Method

- ☒ U.S. Standard \$5.95
Currently 5-7 business days, unless otherwise noted.
- ☐ U.S. 2-Day Express \$16.50
2 business days if ordered by 10 AM Pacific
- ☐ U.S. Next Day Express \$21.50
Next business day if ordered by 10 AM Pacific

Continue to Payment

2 Payment

3 Contact

Your credit card will not be charged until your order has shipped, unless it is part of a subscription program.
By clicking "Submit Order," I agree to the shopDisney [Terms of Use](#).

Submit Order

Too Overwhelming
for First time users &
Non-Logged In Users

Problem Definition

No. of Visits

Conversion Rate

Average Order Value

Recommendations

ii) This is how Amazon does it... Break it down into steps

First Sign In / Create Account
(Logged In Users purchase more)

Address and Payment Details

Step 1:

Sign-In

Email or mobile phone number

Continue

New to Amazon?

Create your Amazon account

Step 2:

Create account

Your name

Mobile number or email

Password

At least 6 characters

i Passwords must be at least 6 characters.

Re-enter password

Continue

Step 3:

Address

Street address or P.O. Box

Apt, suite, unit, building, floor, etc.

City

State

Select

ZIP Code

☐ Make this my default address

Delivery instructions (optional)

[Add preferences, notes, access codes and more](#)

Use this address

Assuming a 3 % decrease from xx% to yy% in bounce rate will increase the revenue from first time purchasers by **30%**.

Problem Definition

No. of Visits

Conversion Rate

Average Order Value

Recommendations

iii) Cross selling can help us in increasing the revenue

Refer Appendix 11

Of all the customers who purchased this...

Also purchased these categories.

	Toys	Accessories	Home	Buttons	Plush	Play Sets
Toys	-	4%	21%	0%	0%	0%
Accessories	14%	-	25%	0%	7%	7%
Home	17%	6%	-	0%	1%	1%
Buttons	0%	3%	1%	-	2%	1%
Plush	0%	2%	1%	5%	-	7%
Play Sets	0%	2%	1%	3%	7%	-

Recommendations:

- As Accessories and Toys are purchased by those who also bought Home.
- Bundle or recommend these items
- And as their Average Price is higher, it will increase overall Average Order Value
- Similarly this can be applied for other products categories

From Appendix 12, Average Order Value of
Play Sets > Buttons > Home > Toys > Plush > Accessories

Problem Definition

No. of Visits

Conversion Rate

Average Order Value

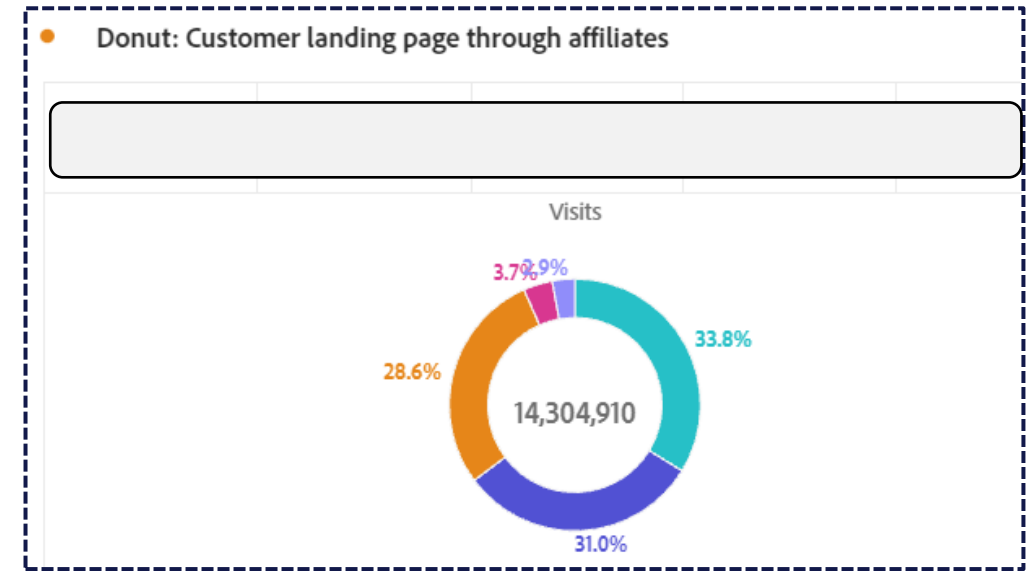
Recommendations

iv) Increase conversion using affiliate channel, directing users to home landing page

Refer Appendix 10

When Affiliate Channel redirects to...	Conversion Rate
Home Landing Page	xx%
Category Page	yy%
Product Detail Page	zz%

- When a visitor comes to Home Page using Affiliate Channel conversion rate is way higher than users who come to Category and Product Detail Page
- Further, 44% of customers buying abandoned cart items enter through home landing page. { Appendix 7}
- However, currently majority of traffic from Affiliates is directed to Category Page (33.8%)



Time period: Jan 1, 2020 – Dec 31, 2020

Recommendations:

- Affiliate Channel should redirect users to Home Page rather than Category or Product Detail Page.
- Hypothesis can be validated by running a small test

Problem Definition

No. of Visits

Conversion Rate

Average Order Value

Recommendations

Stretch task

Customer segmentation using purchase journey

Purchase journey

Awareness

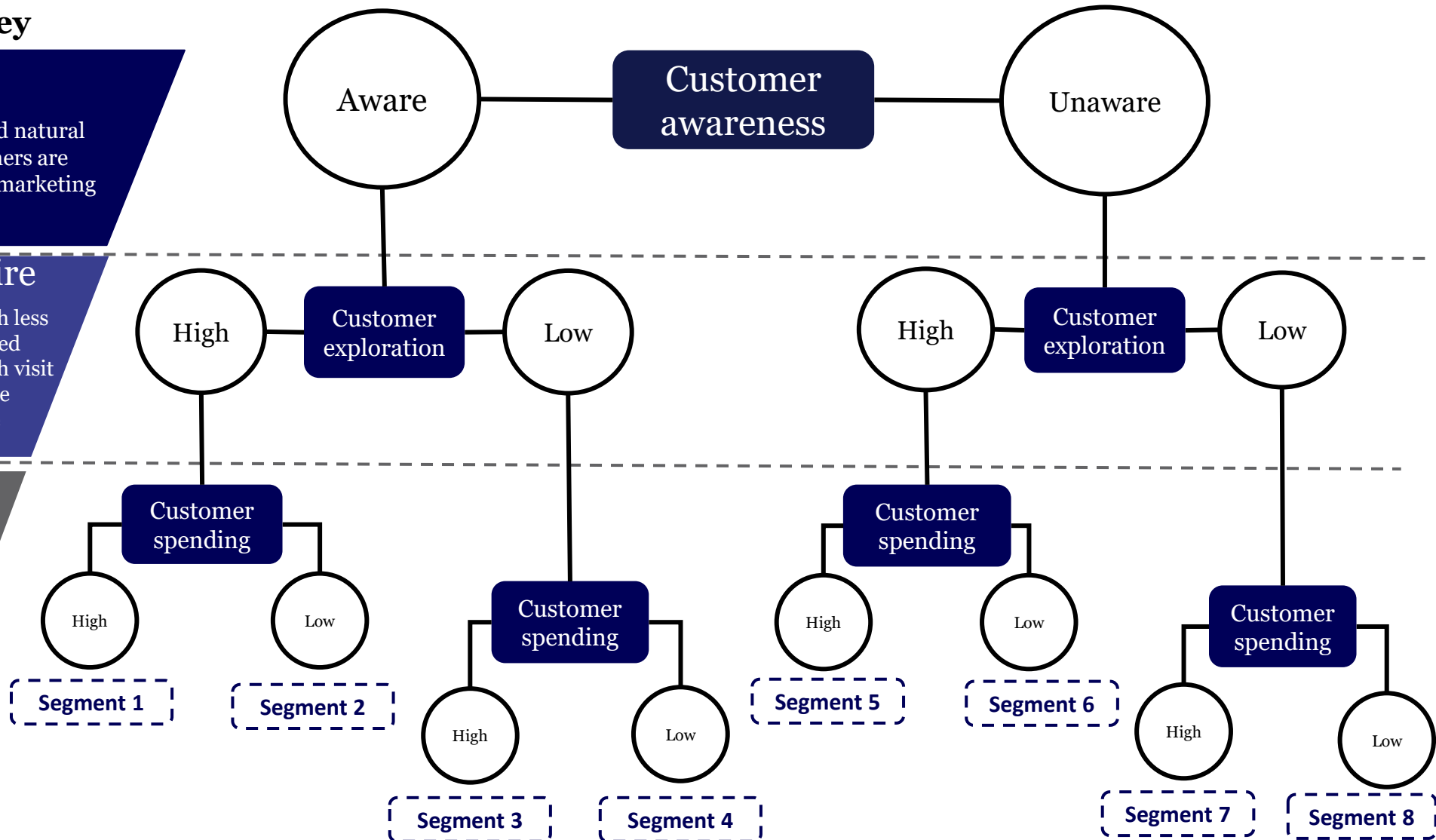
Aware customers use direct and natural search while unaware customers are routed through other inorganic marketing channels

Interest & Desire

Customers with page depth less than 41 pages are focused purchasers while those with visit depth more than 41 are exploratory in nature

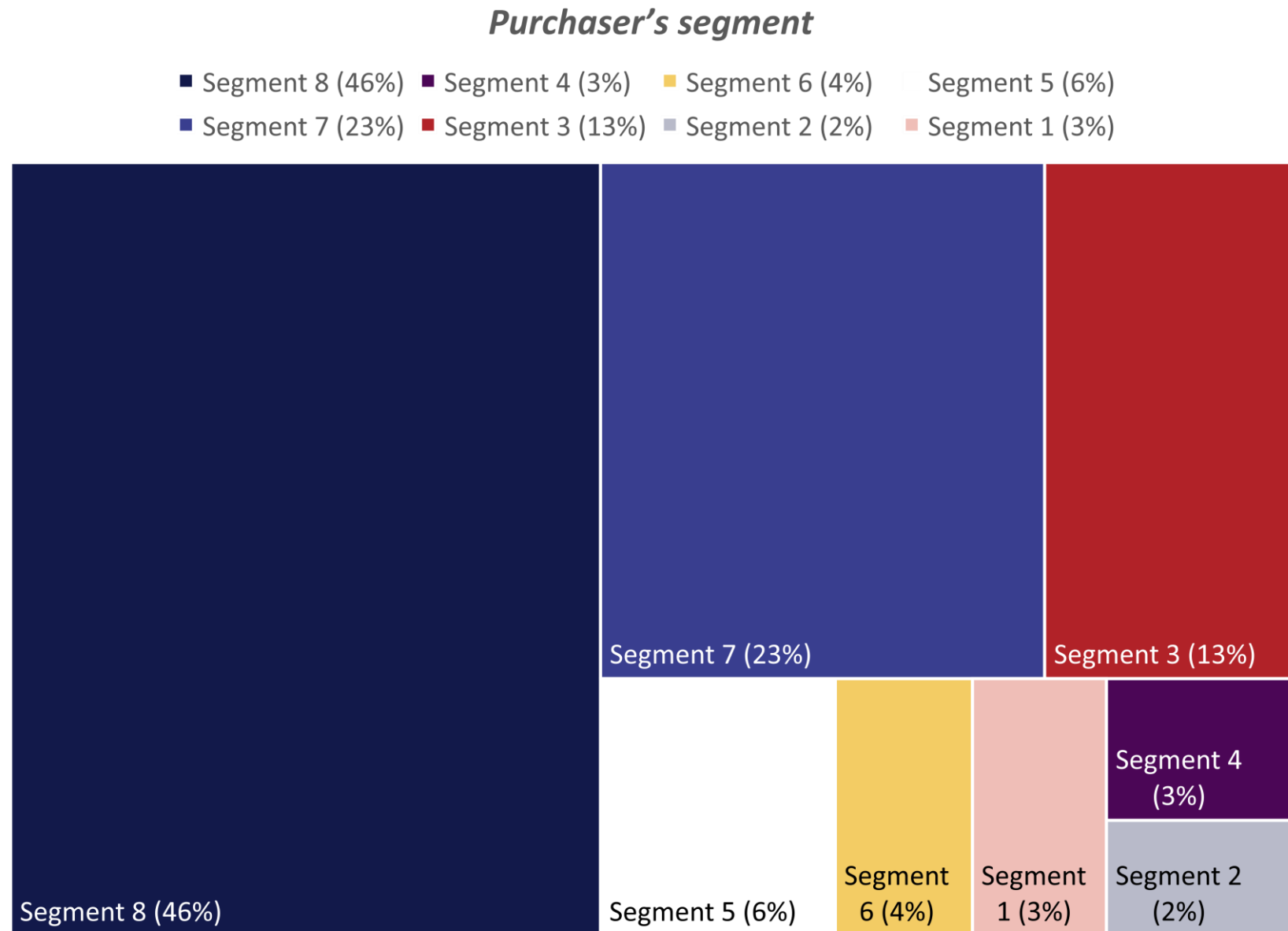
Action

Purchasers who pay tax amount more than \$4.87 per purchase are high ticket purchasers. While others are low ticket.



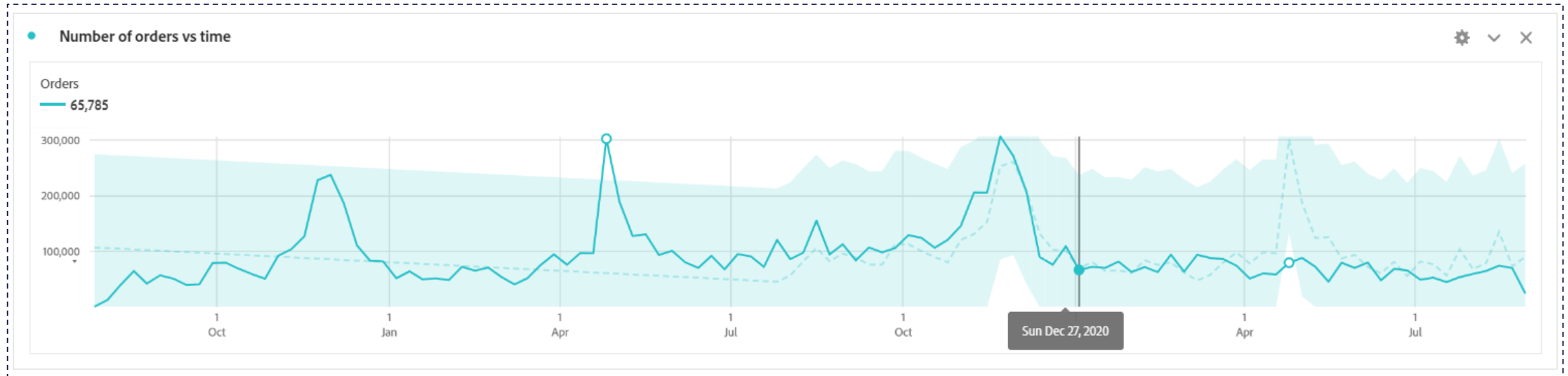
Customer segmentation using purchase journey

	Platform awareness	Customer exploration	Customer spending
Segment 8	Low	Low	Low
Segment 4	High	Low	Low
Segment 6	Low	High	High
Segment 5	Low	High	High
Segment 7	Low	Low	High
Segment 3	High	Low	High
Segment 2	High	High	Low
Segment 1	High	High	High

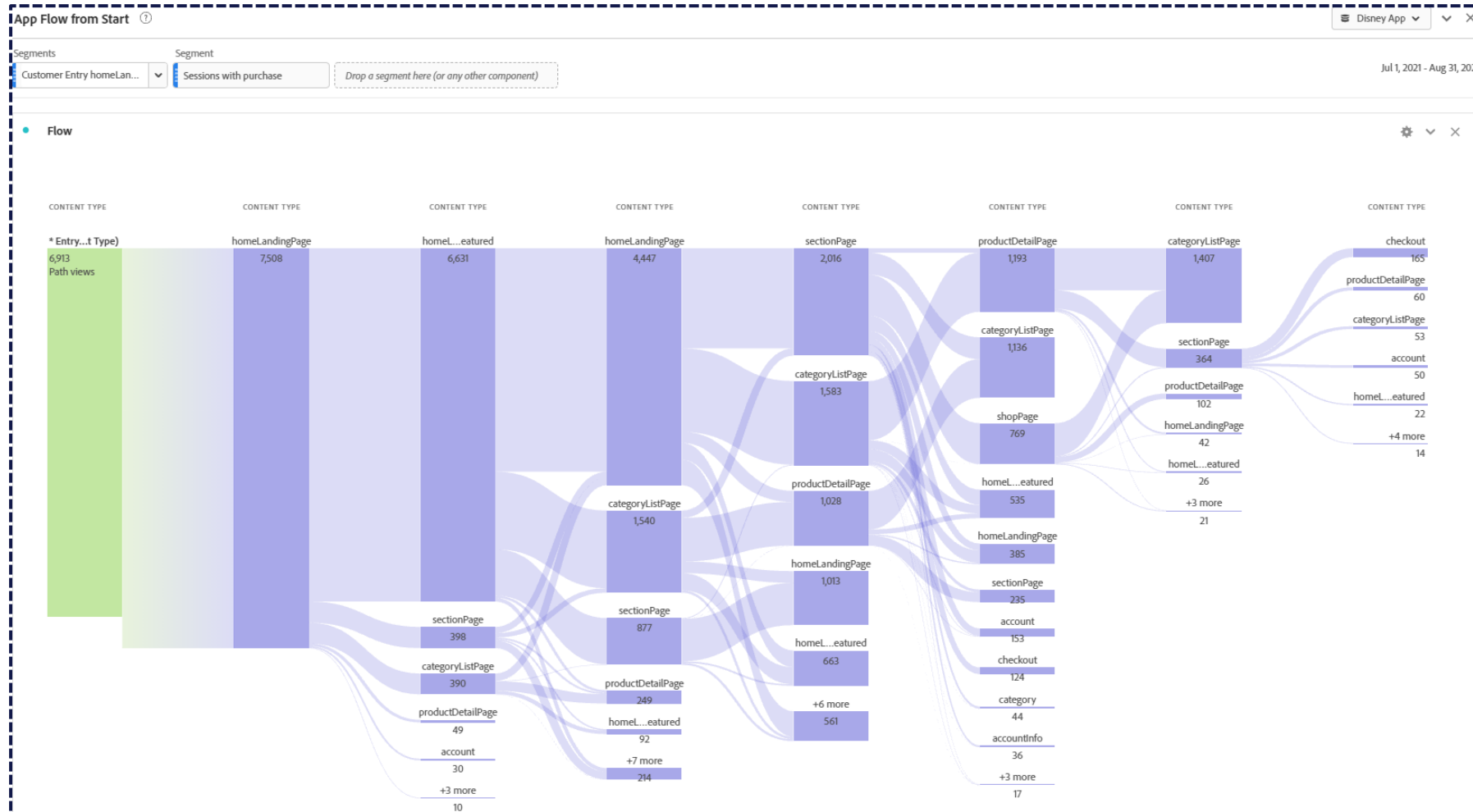


Appendix

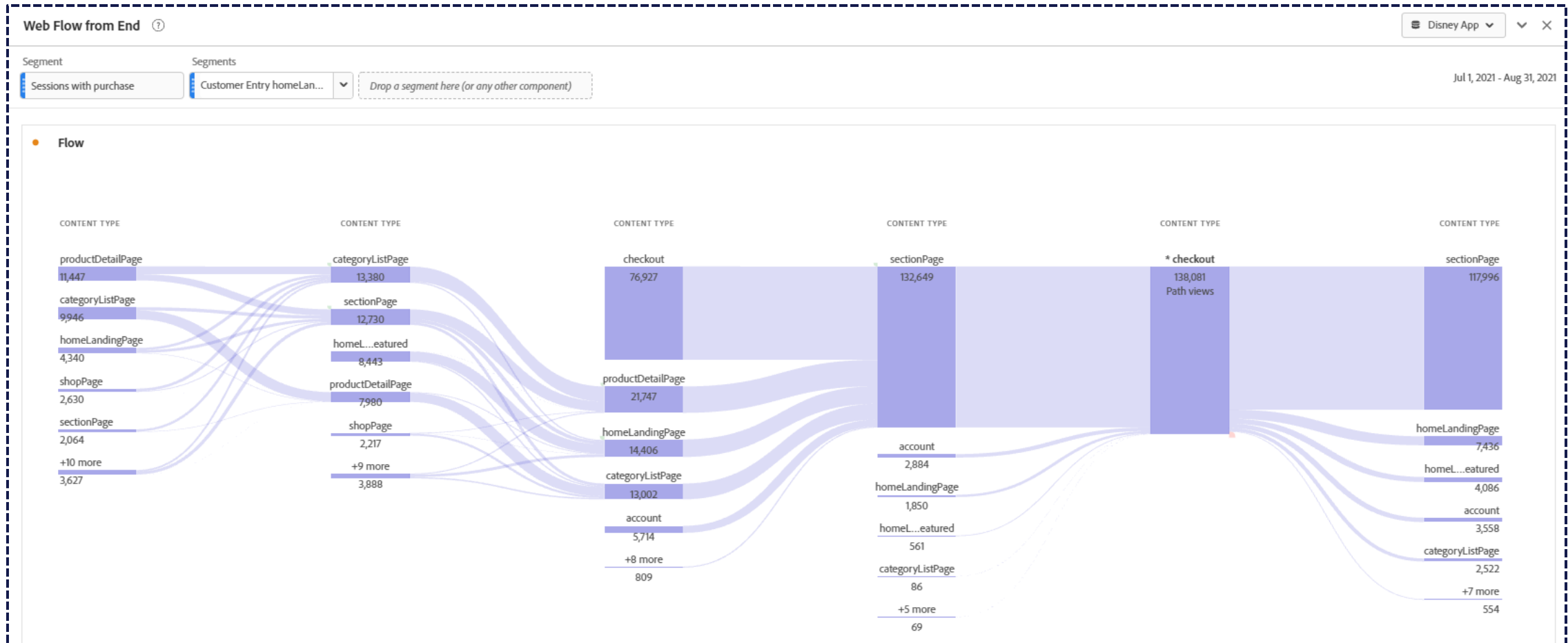
Appendix 1: Average order vs time suggests no evident impact of COVID in Disney's business in year 2020.



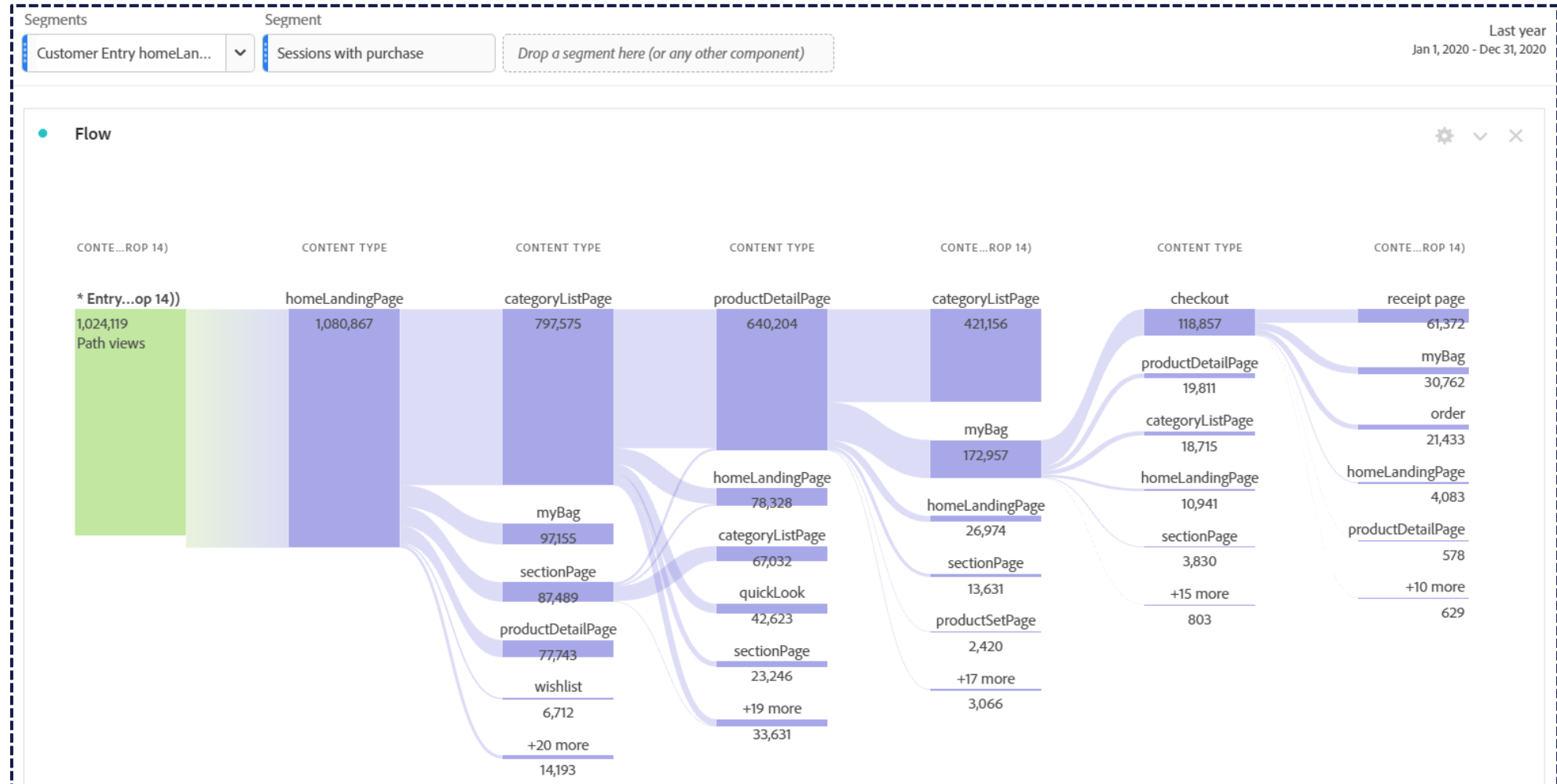
Appendix 2: App users have a exploratory navigating pattern after they enter through landing page



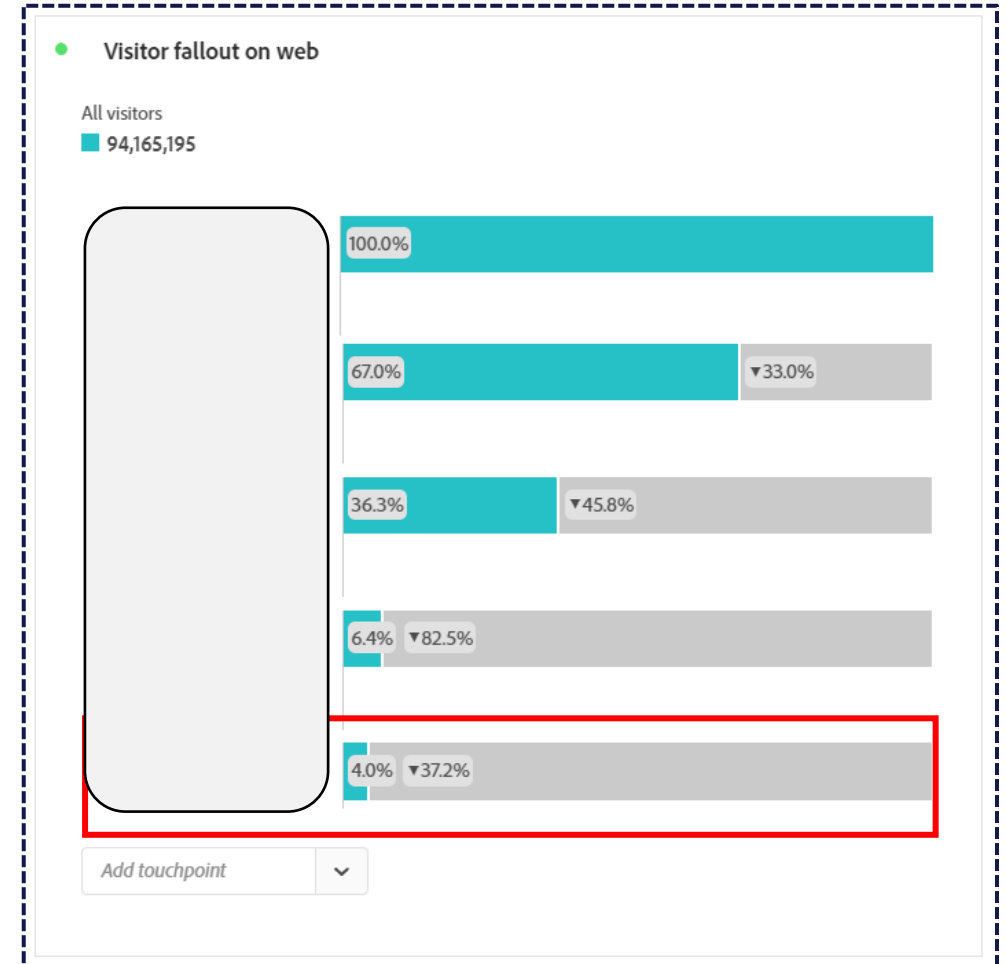
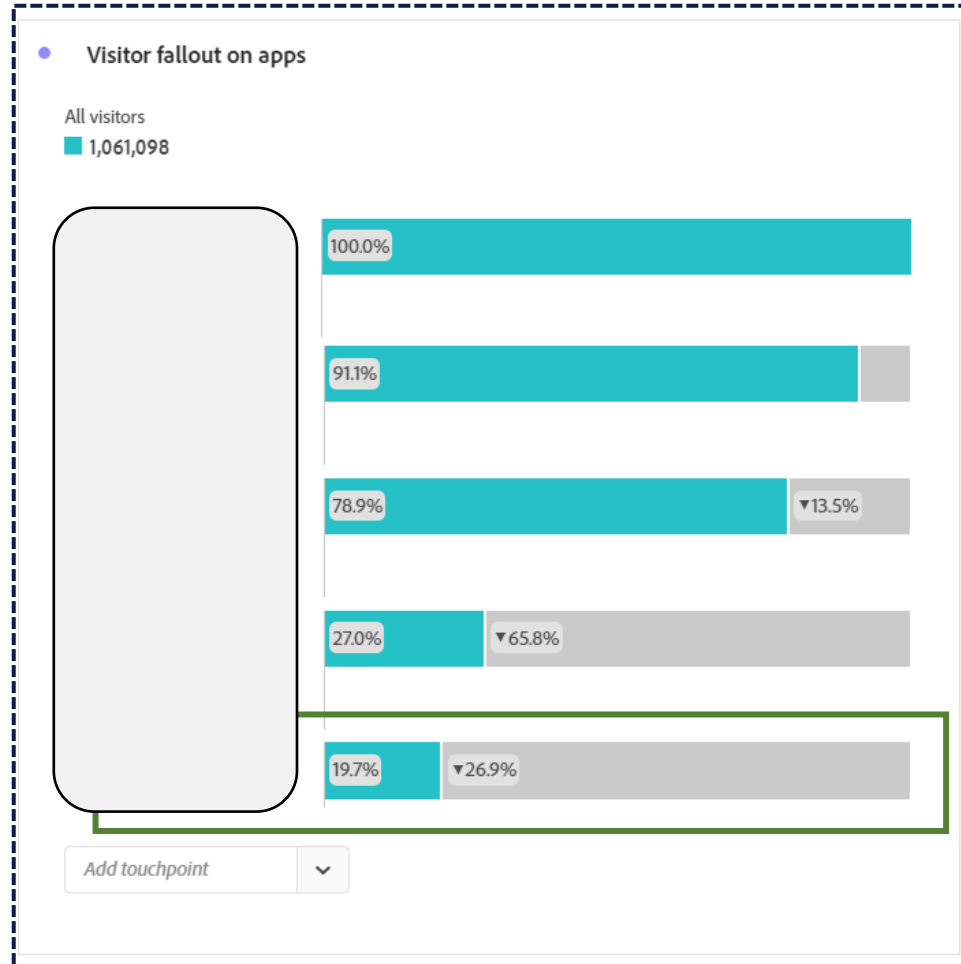
Appendix 3: App users have a exploratory navigating pattern before they exit through exit page



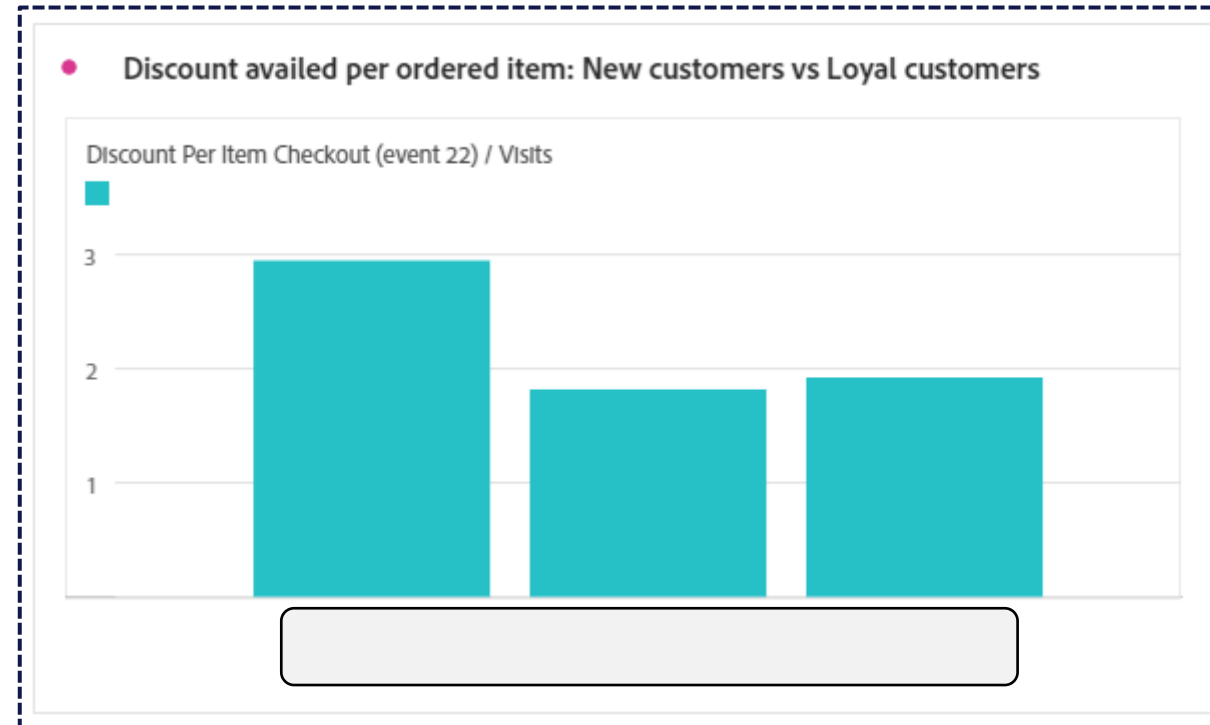
Appendix 4: Web purchasers follow a more straight forward journey



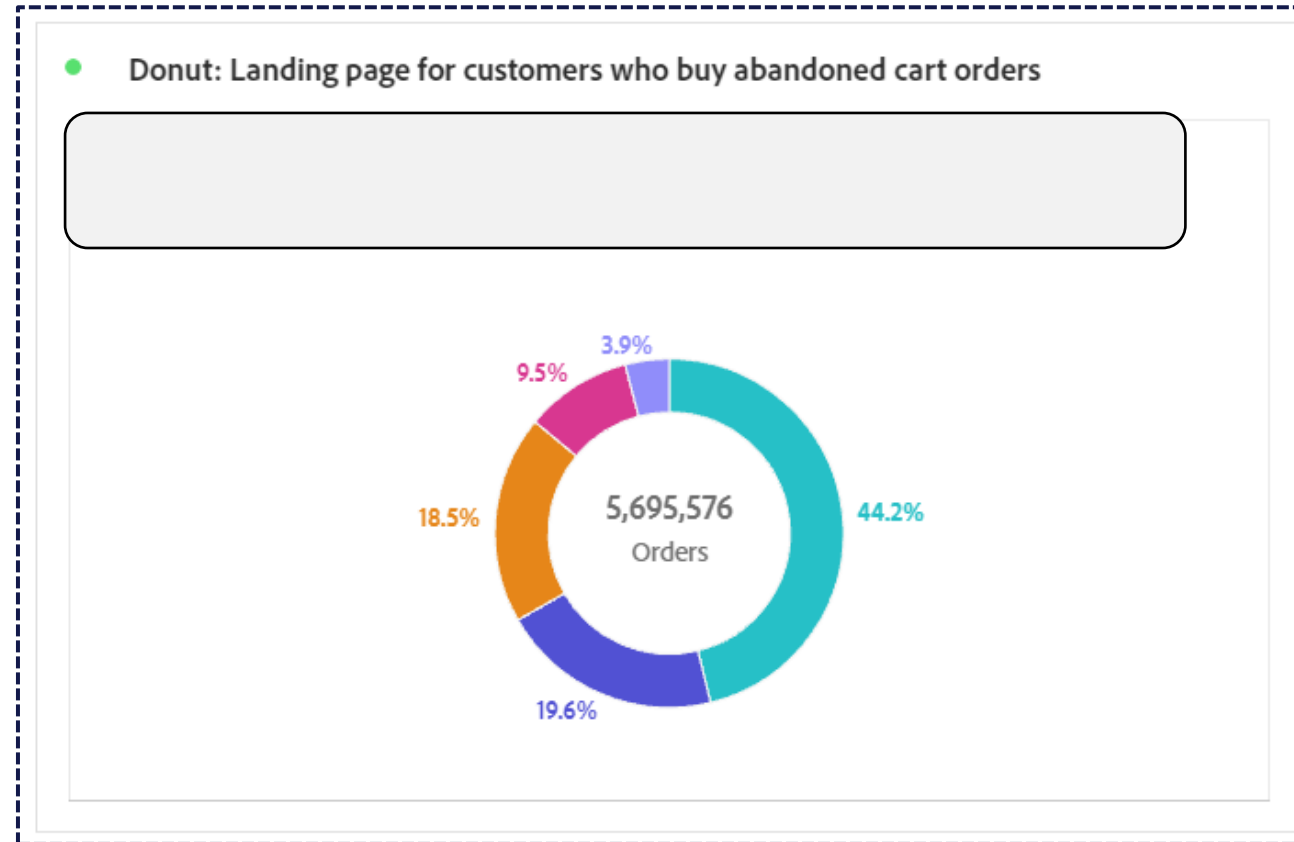
Appendix 5: App users have less drop off at each funnel stage and hence have high conversion rate



Appendix 6: First time purchasers exploit discounts more compared to loyal customers.



Appendix 7: Entering content page for customers buying abandoned orders



Appendix 8: xx% customers come back within 3 weeks of abandoning cart. Post which the conversion is very low.

● Cohort table: Customer conversion for abandoned cart

Retention




Inclusion: Visits >= 1, Abandon Cart Return: Orders >= 1, Ordered items already present in cart

Cohort	Included	+1 Weeks	+2 Weeks	+3 Weeks	+4 Weeks	+5 Weeks	+6 Weeks	+7 Weeks	+8 Weeks	+9 Weeks
Average retention	192,769	6,757 3.6%	3,768 2.0%	2,931 1.6%	2,783 1.5%	2,307 1.2%	1,943 1.1%	1,812 1.0%	2,082 1.1%	1,706 0.8%
Mar 28 - Apr 3	204,132	5,677 2.8%	3,368 1.6%	2,391 1.2%	3,261 1.6%	2,431 1.2%	2,012 1.0%	1,233 0.6%	2,512 1.2%	1,706 0.8%
Apr 4 - Apr 10	156,016	5,939 3.8%	3,200 2.1%	3,457 2.2%	2,679 1.7%	2,279 1.5%	1,288 0.8%	2,492 1.6%	1,651 1.1%	
Apr 11 - Apr 17	184,441	5,948 3.2%	4,300 2.3%	2,934 1.6%	2,479 1.3%	1,305 0.7%	2,616 1.4%	1,712 0.9%		
Apr 18 - Apr 24	182,371	7,779 4.3%	3,986 2.2%	2,825 1.5%	1,607 0.9%	2,920 1.6%	1,854 1.0%			
Apr 25 - May 1	217,592	7,619 3.5%	4,188 1.9%	2,196 1.0%	4,378 2.0%	2,599 1.2%				
May 2 - May 8	177,785	6,293 3.5%	2,358 1.3%	3,824 2.2%	2,295 1.3%					
May 9 - May 15	183,668	4,537 2.5%	4,989 2.7%	2,888 1.6%						
May 16 - May 22	175,383	8,369 4.8%	3,756 2.1%							
May 23 - May 29	233,410	8,654 3.7%								
May 30 - Jun 5	212,890									

Time period: Apr 1, 2021 – May 31, 2021

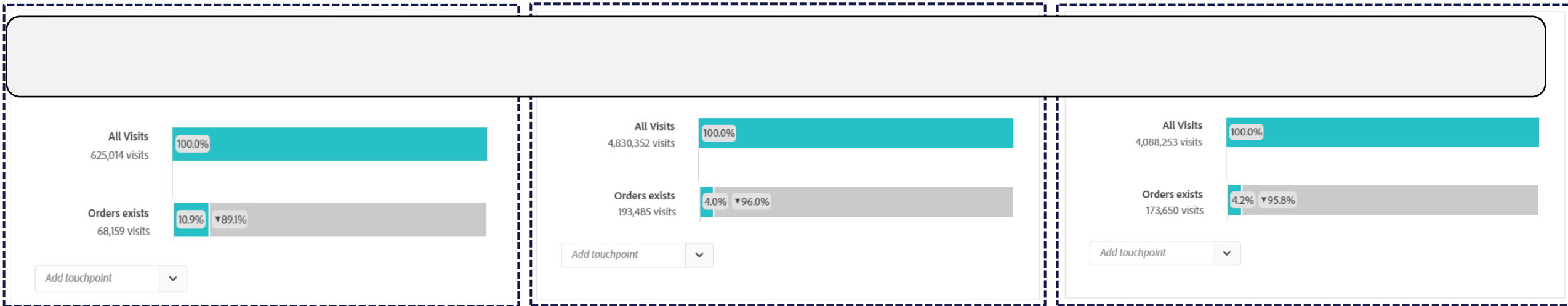
Appendix 9: Segment comparison of “session in which customer added to cart and bought” **VS** “sessions in which customer bought item already present in cart”

Top metrics differentiating visitors who visit in the same session vs the customers who buy abandoned cart items

	Added to cart & ordered	Ordered items already	Difference score
Metrics Page: 1 / 1 Rows: 50 1-25 of 25	 Jan 1 2,294	 Jan 1 958	 Jan 1 ↓
1. Product Views Custom (event 8) / Visitors	11.23	1.26	0.85
2. Internal Search (event 2) / Visitors	5.90	0.93	0.81
3. infinite scroll extend (event 39) / Visitors	5.00	1.36	0.81
4. Click to Search Bar (event 63) / Visitors	2.54	0.49	0.79
5. Product Recommendation Loaded / Visitors	1.68	0.43	0.78
6. Gift Card Amount (event 36) / Visitors	3.66	0.86	0.76
7. Global Nav Clicks (event 30) / Visitors	3.18	0.72	0.76
8. Page Events / Visitors	119.93	32.85	0.74
9. New Engagements / Visitors	0.58	0.18	0.74
10. Reloads / Visitors	13.91	2.72	0.71
11. Searches / Visitors	0.46	0.17	0.71

Customers are engaging more when they are adding to cart and buying in the same session compared to that in a session where they are buying items already present in cart

Appendix 10: Affiliate channel redirected page and corresponding conversion rates

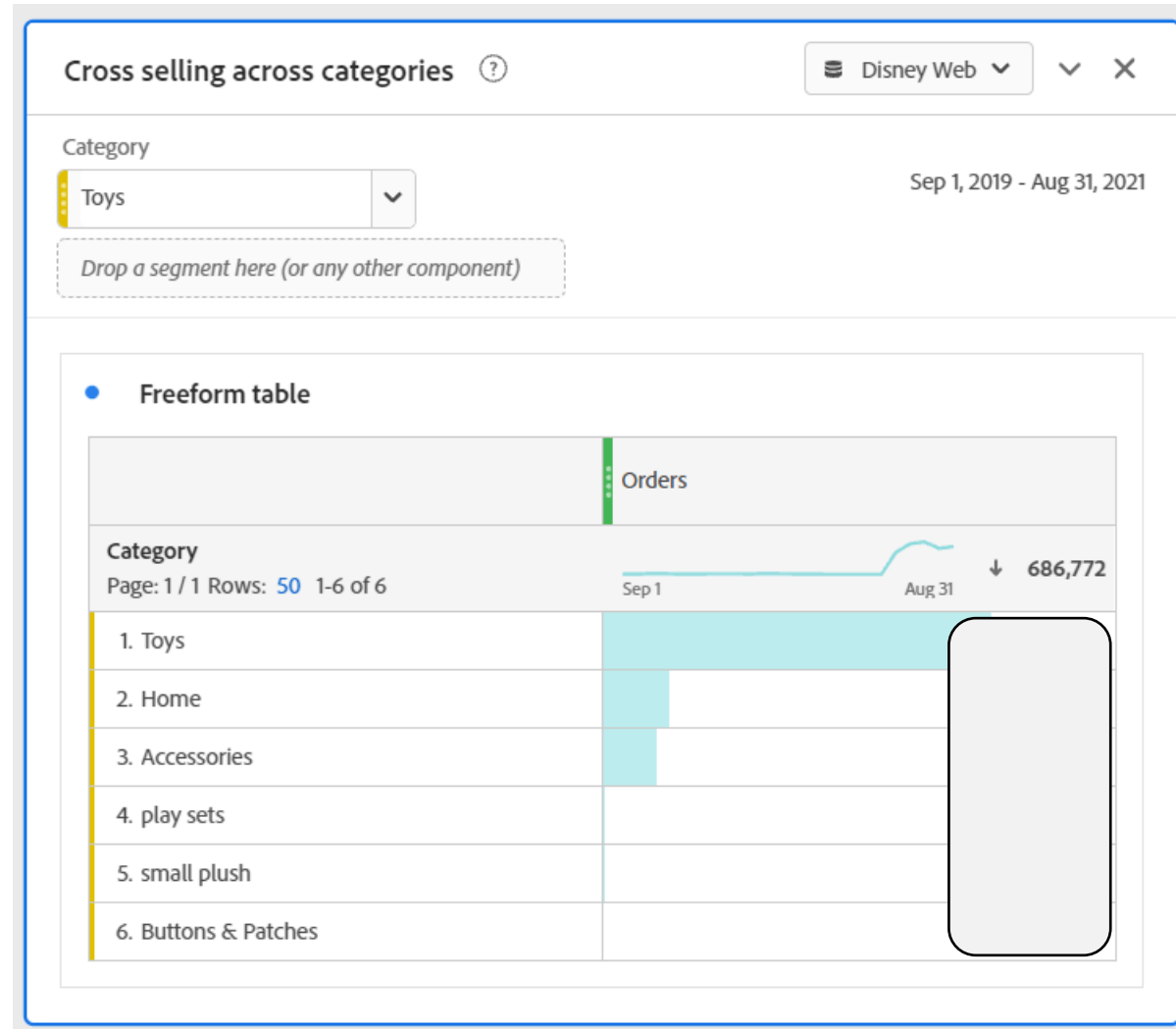


Conversion Rate: 10.9%

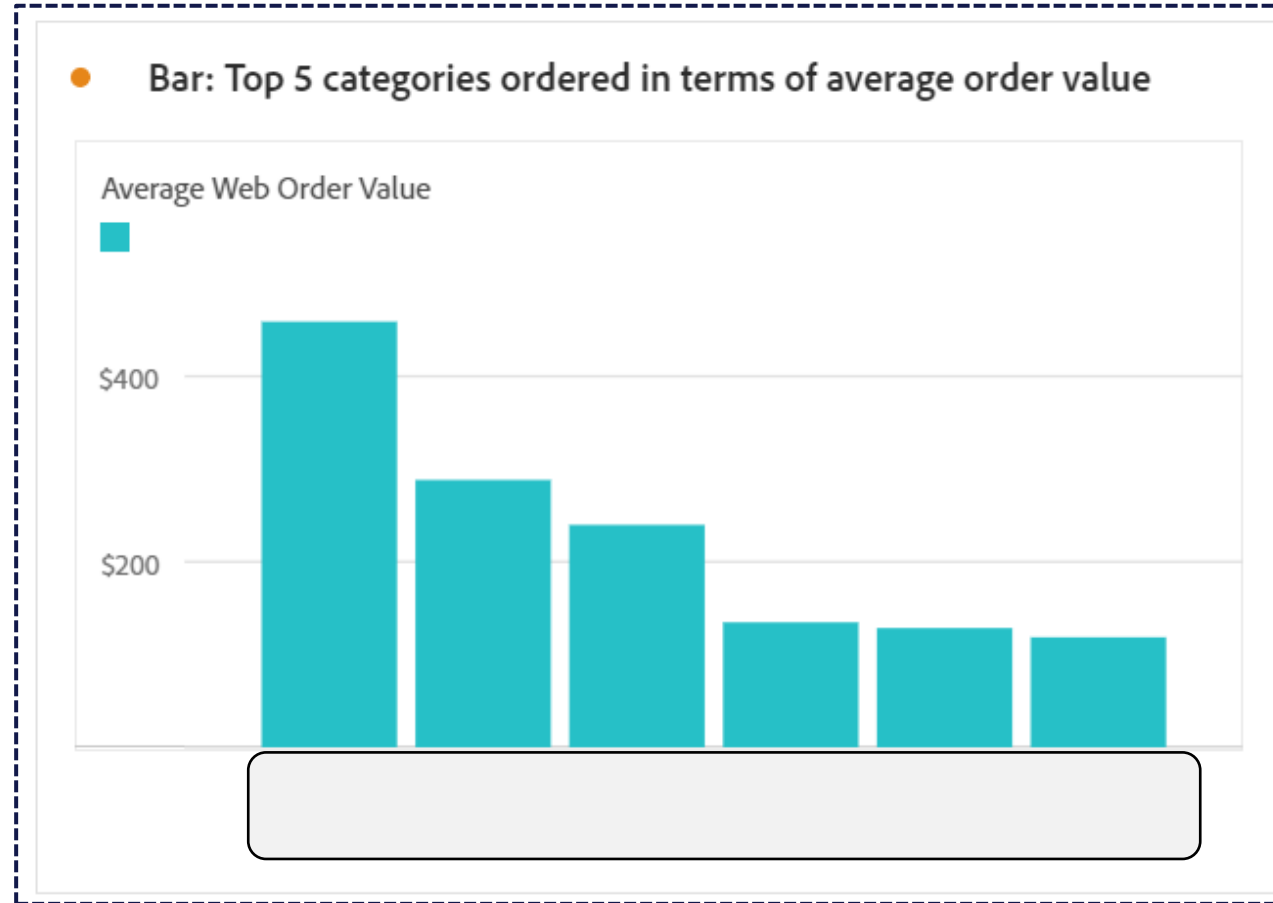
Conversion Rate: 4.0%

Conversion Rate: 4.2%

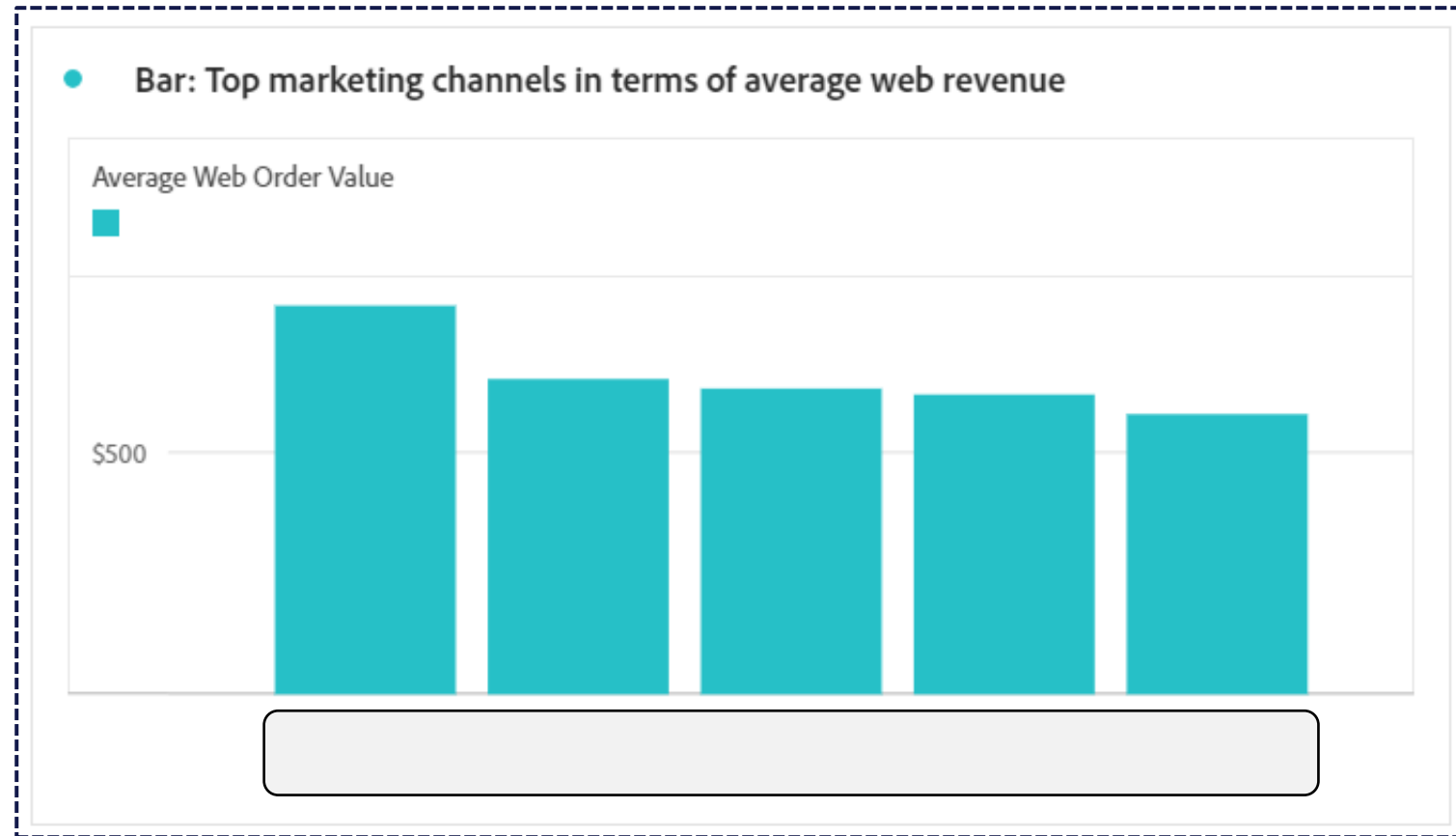
Appendix 11: Cross selling table across different categories



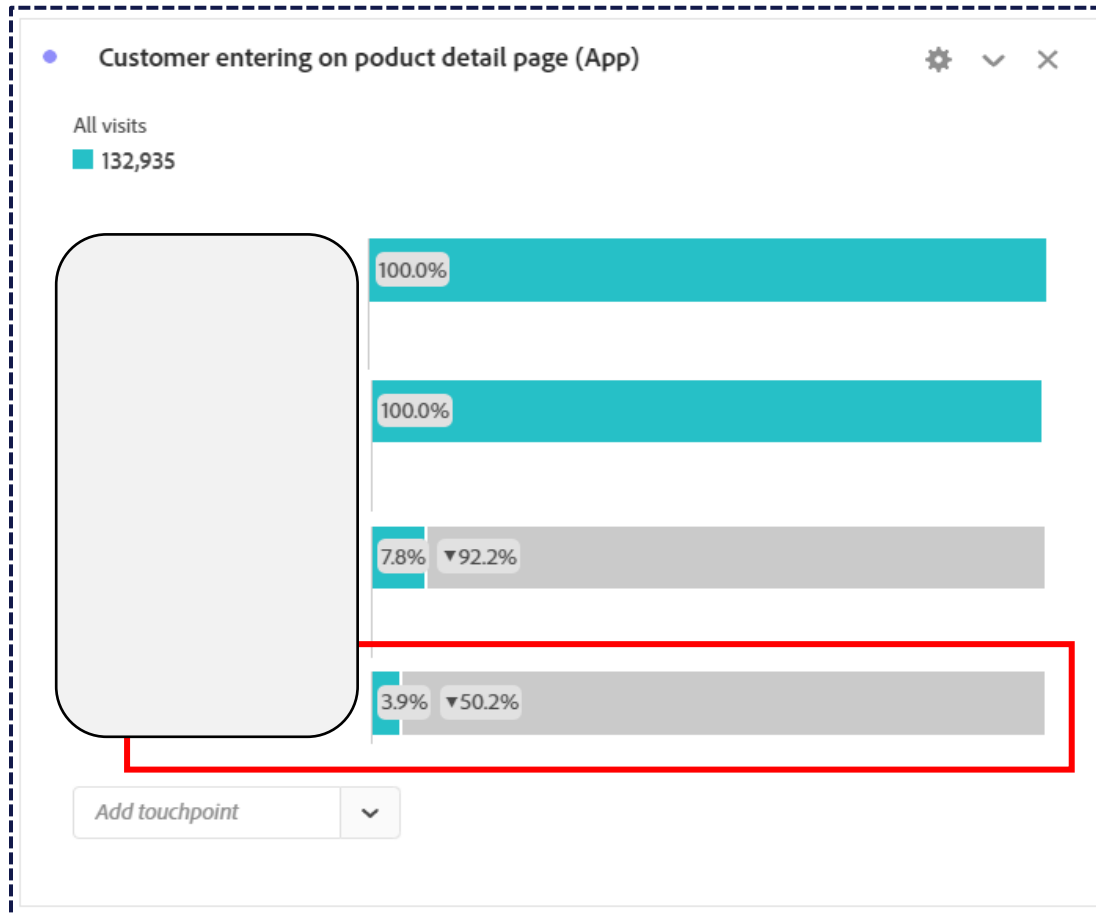
Appendix 12: Top 5 categories ordered in terms of order value



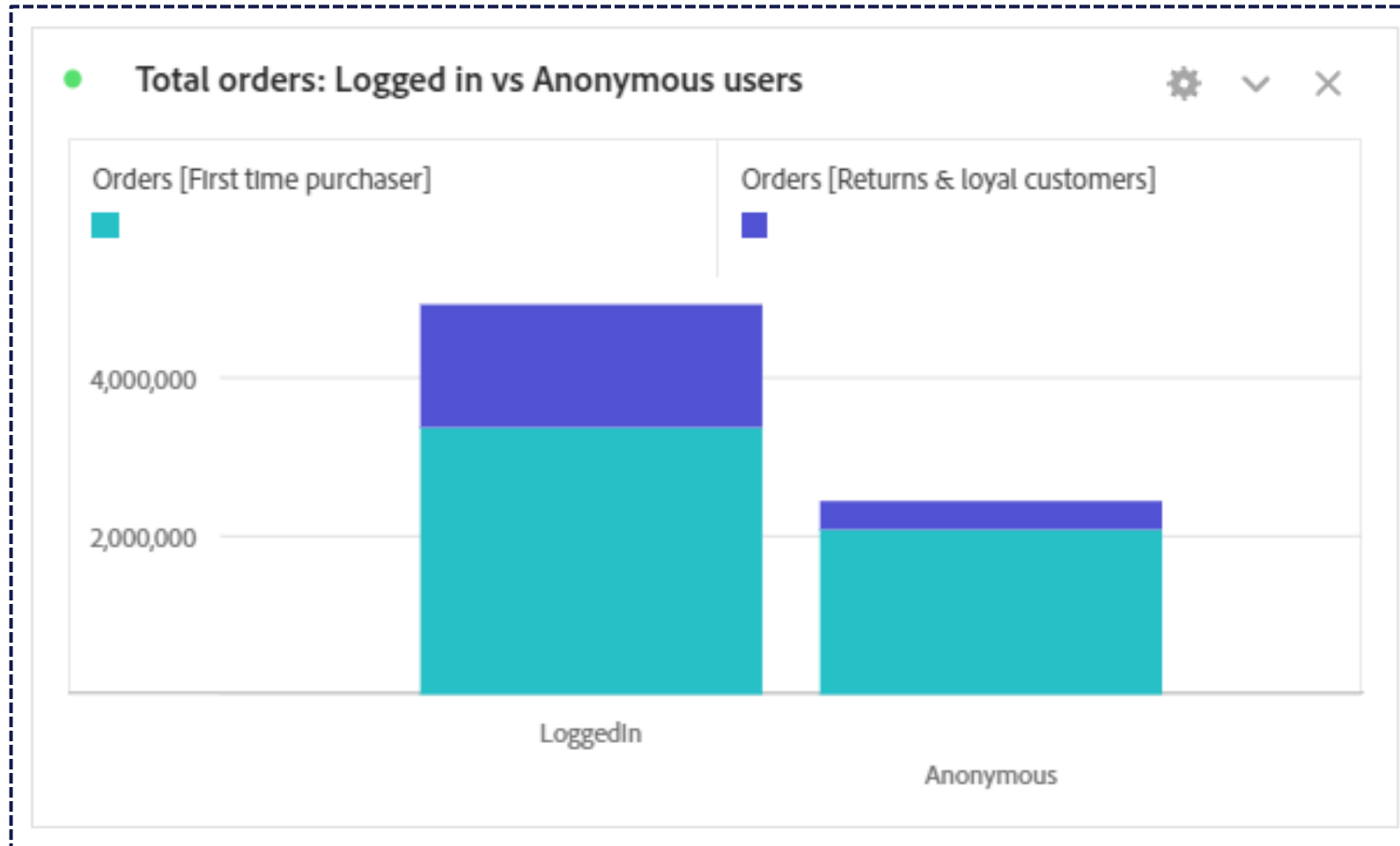
Appendix 13: Top 5 marketing channels in terms of average web revenue



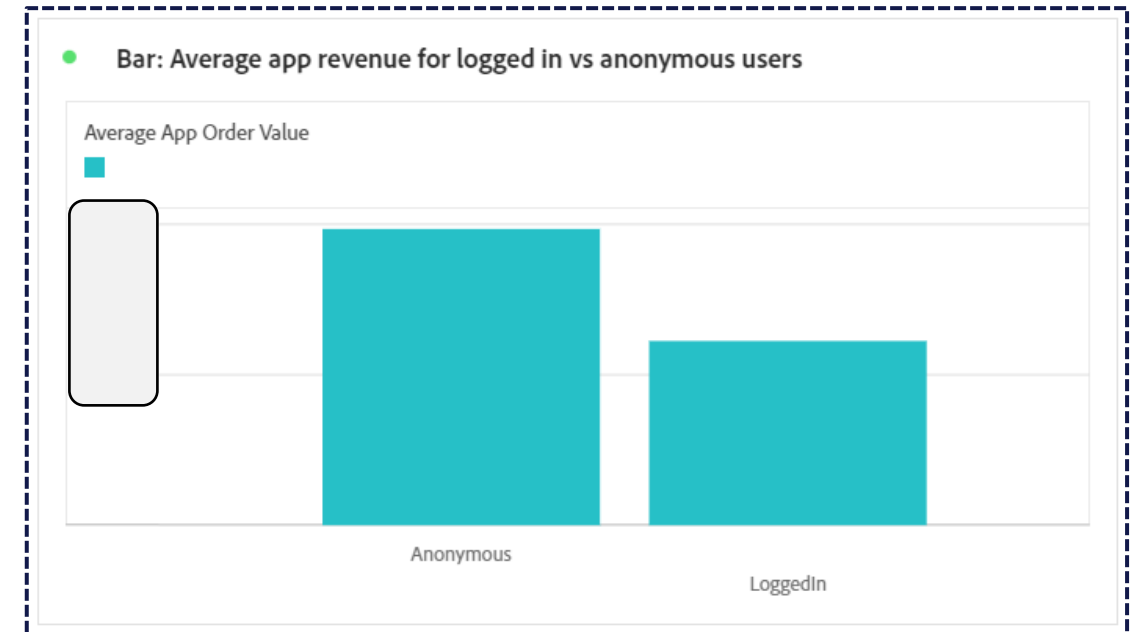
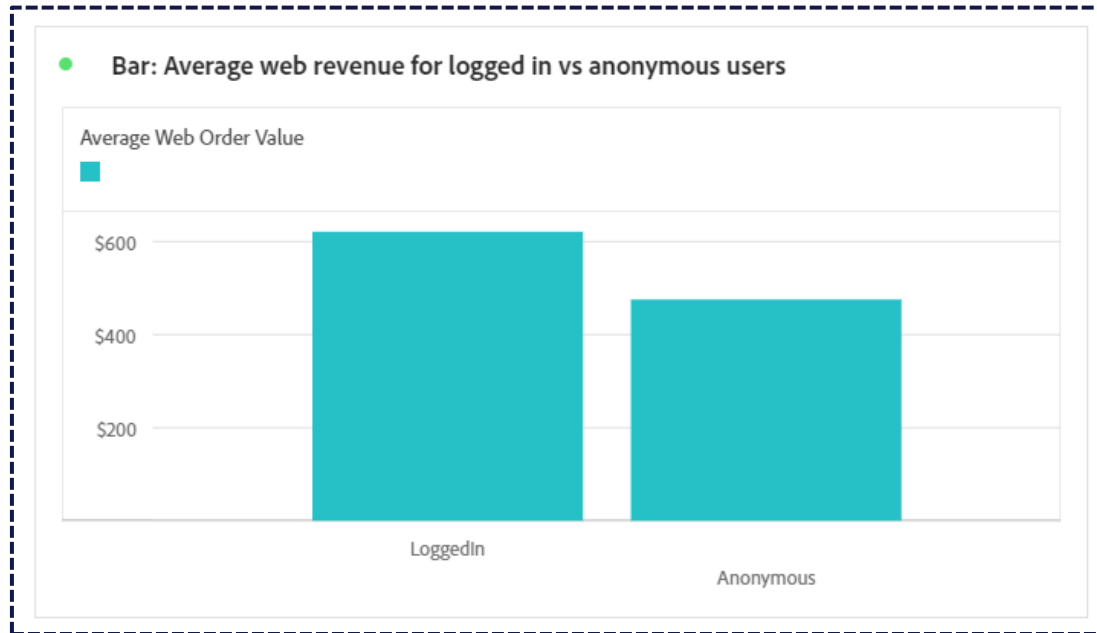
Appendix 14: If a customer is directed to product detail page, he is twice more likely to be converted on app compared to web



Appendix 15: Logged in customers order more and are more loyal compared to anonymous



Appendix 16: Logged in customers have higher order value in web while the opposite is true for apps.



Appendix 17: Financial impact calculation

Let the number of purchasers making an order be	100
Let the % of orders where end consumers are kids be	80%
Number of orders where end consumers are kids	80
% of loyal customers	10%
Number of loyal customers	8
% of return customers	20%
Number of return customers	16
% of first-time purchasers	70%
Number of first-time customers	56
Average purchase value	\$ 5.00

<u>Estimated effect of gamification on engagement metrics</u>				
Let maximum increase in engagement metrics be 100%				
Loyal customers	Time spent increase by	0		
Return customers	Time spent increase by	50%	75%	100%
	% return customers	70%	20%	10%
		105%	35%	20%
	% Increase in time spent	60%		
First-time customers	Time spent increase by	25%	50%	75%
	% return customers	70%	20%	10%
		88%	30%	18%
	% Increase in time spent	35%		

Appendix 18: Increase in average orders with increasing average time spent

