Digital Analytics with Google Analytics Group Report

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KPI and Metrics

In the cyberworld, websites need to be able to stand out from a crowd or risk being lost to obscurity. Because of this, it is more important than ever to make sure a website is getting the best results possible. This is where people turn to web analytic strategies and Key Performance Indicators (KPIs) to help manage their websites. The signs of a good website are, lots of traffic, users are engaged during their time on the website, and that a user completes a desired action to complete a conversion.

General Websites

To increase website traffic, a strategy is to look back and see the traffic that has already passed through. If a certain segment of people seem to favor the website, understanding why that audience likes and uses the website could prove useful. In the same way, if a certain segment is lacking, then steps can be taken to improve the website for them. This is where the web strategy of **Segmenting your audience** comes into play. Users can be divided into countless different segments, but the most useful ones are based on their site usage. An example from a web analytics study on segmentation stated, "we can say registered users are more interested in manufacturer information than unregistered. In typical cases, an unregistered visitor can be just a visitor and they probably came to the site by chance through a search engine like Google. Registered customers sometimes want to get updates from the manufacturer"(Sekiguchi, 2014, p.903) In the case the segmentation is between registered and unregistered, but breaking down your audience makes it much easier to analyze the data.

Page/Scroll Depth can show how thoroughly and efficient users are consuming the content of the website. If the metrics are high then it can convey that the information on the website is valuable and engaging to the user. "These metrics will tell you if the information on your landing pages is valuable and engaging" (McKee, 2019). If there is a low page/scroll depth, then something on that page may be confusing to a user and they will be unlikely to continue onto conversion.

Given that, a KPI that works alongside Page/Scroll Depth is the Conversion Path. Conversion is the end goal of any website and it can take many different forms depending on the website and will be discussed in the later sections. A Conversion Path is the steps taken from entering the website to making the desired conversion. "When analyzing a conversion path, it's important to understand that the overall conversion is made up of a series of micro conversions" (Burby, 2007, p.132). This information can help us follow the thought process of the user and understand their behavior and maybe find out if there is a common path to those who make conversions

Combining the information gained from multiple strategies and KPIs: such as segmentation, page/scroll depth, conversion path, and many others; can give a clearer picture of how healthy a website is. For example, looking at both the page/scroll depth and conversion path together allows one to see not only how the user got to conversion, but adds the benefit of knowing how well they spent their time on the different parts of the path they took.

eCommerce

Electronic commerce or eCommerce refers to any form of a transaction of goods or services with the help of the internet such as websites. It is also the transfer process between data and money for those business transactions and represents the sale of online products. Websites such as Amazon, eBay, Walmart, and Target each contain a strong commercial relationship between their business and their consumer because of the physical products and customer services the companies provide in exchange for the consumer's loyalty to the platform. Each eCommerce website's performance can be tracked using different KPI metrics.

There are six common KPI metrics that eCommerce websites focus on which include: **customer visits, customer acquisition cost, transactions, average order value rate, conversion rates, revenue by traffic.** Many questions can be developed if these metrics are analyzed effectively. According to data analyst Mark Hayes, "You'll be able to more accurately devise strategies to drive more online sales, as well as understand problems in your business" (Hayes, 2018). These KPI metrics are crucial because without them, it is difficult for companies to make important business-decisions if they do not have any supporting evidence.

As an eCommerce company, promoting the website and building a strong customer base community is essential. Measuring the **percentage of customers (returning and new)** visiting the website allows the company to determine how much they should spend on paid advertising in order to attract new visitors. They can also send email newsletters to encourage returning customers to come back to the website and increase the chances to make a purchase (Law, 2018). Once the eCommerce company analyzes the customer visits, they can calculate the **customer acquisition cost** or how much money they should invest to advertise customers to buy the product or services from the website. It is important to know this because companies can figure out which marketing channels have the least acquisition cost and therefore spend less money on advertisements while making more revenue.

The main goal for an eCommerce website is to build up as much sales as possible. In order to do this, they must have the **number of completed transactions** and the **average order value rate**. Completed transactions can tell companies which products are popular to the customers and they can focus on them more to increase revenue. "It's an essential metric to keep an eye on this because it offers insight into how much you're getting out of every customer and every dollar you spend to acquire a new customer" (Osborne, 2018). The **conversion rate** and **revenue by traffic** can easily tell the company how well the website is performing based on sales over a long period of time and they should be constantly monitored by analysts. The higher the conversion rate and the average order value rate, the more beneficial the company will be.

Content

Web content consists of an online streaming, and social networking platform that allows users to subscribe, create profiles, and interact. Facebook, Instagram, Youtube, Twitter, and Tumblr are examples of popular social media platforms. Hulu, Netflix, HBO,Spotify, and Apple music are examples of streaming content sites. "Social networks make money through investments from venture capitalists" (Sukhraj, 2017). Many of these users are business owners, brands, and influencers who are trying to raise brand awareness and have followers subscribe to their content. To generate revenue and traffic, they pay to have ads on these social network sites. Bloggers, influencers, and website owners pay attention to traffic and conversion.

Facebook, Instagram, Youtube, and Twitter allow users to change their profile into business settings. This allows them to get analytics on how well their post and content do. Content creators on Youtube are allowed to track demographics and monetize their videos to earn extra revenue. Instagram and Facebook allow businesses to have targeted ads for users." Some types of social media measurements are engagements, engagement rate, followers, impressions, page like post clicks, post reach" (Sukhraj, 2017). There is a newsfeed algorithm for sites like Twitter, Instagram. Many businesses, nonprofits, companies all have Facebook pages to update customers and to advertise to prosperous customers. KPIs are key for content streaming sites, because they can cater and create recommendations. based on the viewers history and likes.KPI's for streaming content have different values and meaning than social media content. Streaming KPIs consist of duration of view, unique visit, geographical breakdown, and viewer engagement. An example is Youtubers must have their video fully watched for a certain duration to count as a view. Post reach, page likes, post engagement, orders, and responsiveness are social media KPI. This helps businesses to deliver content by scheduling your post to come out at the best times, who's most engaged, and demographics of who is engaging most.

"Your social media metrics should help you determine the performance of your social media campaigns and the return of investments" (Oliveira, 2017). Clicks and 'swipe ups' are reflective of engagement and if you are successful in pitching your content. Companies need to know the most important marketing KPIs to track across all functions. "Traffic per campaign, conversion rate per traffic source, organic landing page traffic to a specific URL are examples of less visible, but important KPIs" (Räve, Jan-Frederik; Greff, Annika pp.291-295). The hard to find but most important KPIs are qualified leads, promoter score, and sales closing rate. Traffic per campaign is an important metric because it is necessary to know how many users are visiting your websites and interacting with that post.

Software as a Service

Software as a Service, or SaaS for short, refers to any service that a customer can use by paying a subscription fee. SaaS websites are software that can be accessed over the internet. Some notable examples include DropBox, Blackboard, and AmazonWebServices. What makes SaaS unique from other business models is how it relies on recurring revenue rather than large purchases for a product or equipment. Subscription-based payment is the main source of revenue for SaaS which makes metrics that they should be focusing on a bit different from the other models. Data should be able distinguish high quality leads and maintain lead volume for a long period of time (Vidovic, 2019). Here are four really important metrics that SassS Business should keep track of: Monthly recurring revenue, churn rate, customer lifetime value, and customer acquisition cost.

Monthly recurring revenue (MRR), is the summary of revenue that the business is gaining solely from subscriptions. Recurring revenue is the main monetization for SaaS so knowing the MRR will allow the business to understand much they can make. The ability to track MRR depends entirely on the complexity of the SaaS business. This number can be really easy to calculate if the company has only one subscription model, but most companies will offer multiple types of subscriptions with different pay models. You can increase this number by increasing the price of the subscription, convince current customers to upgrade their subscription, increase sales ("MRR: Ultimate Guide to Monthly Recurring Revenue, n.d).

Churn rate, which is the proportion of customers or subscribers who leave during a given period. Since it is well known that getting new customers is more expensive than keeping old ones, the acceptable churn rate is around 5-7% (Vidovic, 2019). If this number ever fluctuates, it is important to identify why it is happening. Simplest way to make sure you keep the churn rate low is to constantly engage and support existing customers. When analyzing this metric along with MMR, businesses can understand their customer satisfaction and can adjust accordingly. While these two metrics are critical for any SaaS businesses, the next two are important if the business is considering expanding.

Customer lifetime value (LTV) is a metric for understanding how long a customer will be using the services. The simplest equation provided by Vidovic is: $LTV = (Average\ MRR\ per\ Account)$ * Customer Lifetime (Vidovic, 2019). Since the payout for SaaS businesses is greater the more invested the customer is long term, knowing which kinds of customers have a high LTV can determine executive decisions on the model. It can also help drive the businesses' competitive advantage and is a good indicator of improving product and process quality according to Setijonno and Dahhlgaards's paper on "Customer value as a key performance indicator (KPI) and a key improvement indicator (KII)". They mention that customer value

"occurs in several contexts" (59) which means that there could be many segmentations that the business could focus on that can be revealed through LTV.

Another metric relating to LTV is **customer acquisition cost** (CAC), which shows how much it cost to acquire a customer. This metric can be achieved by dividing the total cost of sales and marketing by the total number of deals closed (Vidovic, 2019). For many new businesses, if this number is high they will fail quickly because they cannot keep up with the demand. A business should balance their CAC and LTV, according to Vidovic, since a high CAC and a low LTV indicates that the company is struggling to convert customers while the reverse, low CAC and a high LTV, is ideal for most SaaS businesses. CAC can be reduced by using A/B testing, such as experimenting with two different features or two different subscription models, to improve conversion rates or improving the quality of the product.

KPI Table Comparison

| KPIs | Ecommerce | Content | SaaS |
|-------------------------------|-----------|---------|------|
| Visitors | X | X | X |
| Conversion Rates | X | X | X |
| Average Order Value | X | | |
| Shopping Cart Abandonment | X | | X |
| Monthly Recurring Revenue | X | X | X |
| Media Spending and Returns | Х | X | |
| LTV | X | | X |
| Customer Acquisition Cost | X | | X |
| Churn Rate | | X | X |

Shade indicates how impactful the KPI is to the business type. Darker means it is more impactful.

Google Merchandise Store - Analysis

Audience

| | August 1, 2016- August 1, 2017 | August 1, 2017- August 1, 2018 | August 1, 2018- August 1, 2019 |
|--------------|--|-------------------------------------|------------------------------------|
| Overview | Users: 734,172 | Users: 799,347 | Users:582,172 |
| | New Users: 729,293 | New Users: [797,636] | New Users: [571,969] |
| | Sessions:954,518 | Sessions: [1,115,038] | Sessions: [846,401] |
| | Bounce Rate:47.54% | Bounce Rate: [47.85%] | Bounce Rate: [41.01%] |
| | Pages/session: 4.31 | Pages/session: [4.08] | Pages/session: [4.60] |
| | Avg Session: 2:31 | Avg Session: [2:21] | Avg Session: [3:00] |
| | Transactions: 16,466 | Transactions: [16,513] | Transactions: [1,709] |
| | Revenue: \$2,945,748.94 | Revenue: \$[3,122,361.33] | Revenue: \$[234,090.23] |
| | eCommerce Conversion Rate:2.86% | eCommerce Conversion Rate: [2.87%]% | eCommerce Conversion Rate: [0.41]% |
| Demographics | Age: 25-34/ 36.96% of users | Age: [25-34] [162,161] | Age: [25-34] [134,423] |
| | Gender: male: [344,431] female: [142 | ,29! Gender: Male[301,383] | Gender: male [200,387] |
| | | Female[141,595] | Female [99,629] |
| Geo | Country: [US] [266,173 users] | Country: [US] [332,432] | Country: [US] [262,894] |
| | City: [Mountain View] [29,013] | City: [Mountain View] [26,761] | City: [San Francisco] [27,393] |
| | City: [New York] [18,642] | City: [New York] [22,542] | City: [New York] [22,694] |
| Behavior | New: [730,298] | New: [792,078] | New: [570,603] |
| | Returning: [105,584] | Returning: [138,508] | Returning: [125,973] |
| Technology | Browser: [Chrome] [485,765] | Browser: [Chrome] [544,661] | Browser: [Chrome] [443,986 users] |
| | OS: [Windows] [299,490] | OS: [Windows] [286,318] | OS: [Windows] [193,556] |
| | Desktop: [542,966] | Desktop:[507,842] | Desktop: 395,847 |
| | Tablet: [24,650] | Tablet:[34,157] | Tablet:[15,517] |
| | Mobile: [167,443] | Mobile:[259,571] | Mobile:[168,920] |

Retrieved from Google Analytics Audience Report. (Figure A)

From Aug 1st 2016 to August 1,2018, **Users** increased by 9.18% and new users by 9.14%. The year of 2018- 2019, users and new users decreased by around 200,000 users. **Sessions** decreased and so did bounce rate. **Bounce rate** decreased by 6.84% which is good. A bounce is a single-page session on your site, and is calculated specifically as a session that triggers only a single request to the analytics server. Reducing your bounce rate could mean you provided a better overall user experience, improved your site's speed, and used better methods to captivate user attention. The ideal **average for time on page** is between two to three minutes. Within the three year comparison, the average session remained ideal. **E-Commerce Conversion rate** went up by .0.1% from 2016 to 2018. Ways to boost your Ecommerce conversion rate can be by offering free shopping, providing limited coupon codes, and tweak prices based on the market.

The Google Analytics store demographics, behavior, and overview was increasing from August 2016-August 2018. From August 2018 to August 2019, users, new users, session, transaction, and revenue decreased. The **top age range** was 25-34 and from 2016-2019 and most users were female. Knowing whether most of your **visitors** are male or female will help you find the appropriate tone to use in your messaging. This allows one to see which social platform is

best to advertise on to bring in more traffic. The merchandise stores can focus more on marketing toward male and trying to balance the female to male ratio.

Within behavior, there was an increase in new and returning users behaviors. Understanding users behavior is critical to understanding who is your market and what they want from you. To bring in more traffic, one must create engaging content that is custom to the user. Knowing users behavior and what attracts new users will increase page/sessions, transaction, revenue, and e-commerce. When creating content, you want to remember your buyer persona or behavior, and what type of content makes them stop, click, and consume.

Within the three year comparison, segments in technology remained constant. Chrome was the top browser, Windows was the top operating system, and desktop was the top device used. Ensuring that your site is viewable and functional on all devices, can drive up new users, revenue, and traffic. Mountain View and New York remained the top cities, until 2018-2019, San Francisco took top first city. The United States remained the top country with the most users. Knowing geographic segmentation involves marketing products based on a particular region's climate, cultural preferences.

Acquisition

The Acquisition feature in Google Analytics provides users with tools to examine how users are reaching their websites. The main category of this feature is **All Traffic** which includes **channels, source/medium,** and **referral reports**. This category will allow one to see how users are getting to your website, what brought them there, what kind of users are going through a specific source, and so on. Another category is **Social** which focuses on social media traffic. Useful KPIs for Acquisition tends to be **Bounce Rate**, **Conversion Rates**, and **Sessions**.

| | | Users | New Users | Sessions | Bounce Rate | Pages / Session | Avg. Session Duration | Ecommerce Conversion FT | ransactions | Revenue |
|----------------|-------|--------|-----------|----------|--|-----------------|-----------------------|-------------------------|-------------|-------------------|
| | 16-17 | 315029 | 308817 | 391321 | 47.27% | 4.36 | 154.50 | 1.06% | 4134 | 452958.28 |
| | 17-18 | 383219 | 370221 | 476971 | 48.54% | 3.94 | 132.13 | 0.78% | 3719 | 463468.32 |
| Organic Search | 18-19 | 341540 | 320280 | 436167 | 47.36% | 4.06 | 153.98 | 0.32% | 1392 | 125746.62 |
| | 16-17 | 211602 | 210638 | 227047 | 65.00% | 1.80 | 41.47 | 0.08% | 181 | 19234.31 |
| | 17-18 | 145067 | 142192 | 159208 | 62.21% | 2.36 | 55.81 | 0.13% | 205 | 44226.83 |
| Social | 18-19 | 28869 | 26558 | 31929 | 58.28% | 2.97 | 91.88 | 0.05% | 16 | 908.18 |
| | 16-17 | 118875 | 117377 | 160884 | 45.05% | 400000 | 188.44 | 4.30% | 6913 | 1554075.15 |
| | 17-18 | 139664 | 137369 | 188027 | | 220000 | 1 | | 5217 | 752751.85 |
| Direct | 18-19 | 105017 | 104888 | 146281 | 32.72% | 5.19 | 216.66 | 0.40% | 578 | 74442.36 |
| | 16-17 | 72683 | 62021 | 125699 | 22.48% | 7.63 | 276.57 | 8.67% | 10896 | 1838258.12 |
| | 17-18 | 97871 | 83536 | 194644 | 23.18% | 6.59 | 242.02 | 8.50% | 16545 | 3479990.74 |
| Referral | 18-19 | 82243 | 65979 | 149460 | 23.51% | 6.30 | 257.39 | 0.82% | 1219 | 159927.60 |
| | 16-17 | 19145 | 16367 | 26014 | | 774.4337 | 33333333333 | 200//4/2000 | 572 | 1,000,000,000,000 |
| | 17-18 | 19454 | 16473 | 26150 | 4 (4 (4 (4 (4 (4 (4 (4 (4 (4 (4 (4 (4 (4 | | 137.12 | 1.39% | 363 | 40891.94 |
| Paid Search | 18-19 | 20897 | 17299 | 28479 | 38.16% | 4.76 | 170.20 | 0.69% | 196 | 16428.18 |
| | 16-17 | 13800 | 12821 | 16944 | 51.84% | | 157.14 | 0.06% | 10 | 616.37 |
| | 17-18 | 17976 | 16510 | 22617 | 53.52% | 3.04 | 158.88 | 0.06% | 14 | |
| Affiliates | 18-19 | 24221 | 20171 | 28838 | 49.67% | 3.39 | 152.87 | 0.07% | 20 | 1542.26 |
| | 16-17 | 4200 | 1942 | 6496 | 33.93% | 5.87 | 211.11 | 3.09% | 201 | 140083.94 |
| | 17-18 | 32795 | 32123 | 47402 | 85.67% | 1.55 | 41.19 | 0.22% | 106 | 55970.08 |
| Display | 18-19 | 11793 | 10843 | 14371 | 72.37% | 2.34 | 1000000 | | 44 | 3885.34 |
| | 16-17 | 87 | | | A CONTRACTOR OF THE PARTY OF TH | _ | | | 1 | 9.99 |
| | 17-18 | 15 | | 2,000 | Will Street and All Control of the C | 1000000 | 2000000 | | 0 | |
| (Other) | 18-19 | 9070 | 6654 | 10876 | 30.85% | 5.08 | 186.46 | 0.21% | 23 | 930.44 |

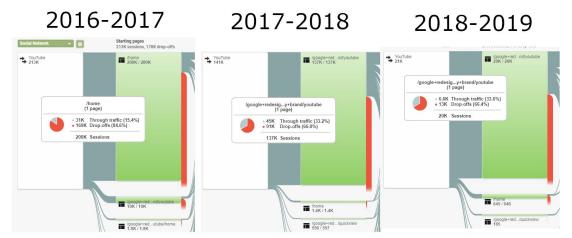
Retrieved from Google Analytics Channel Acquisition Report. Bolded Box indicates the highest value out of the three years. (Figure B1)

The table above shows the main channels that traffic is organized into. We can see that organic search has a large amount of users coming through it and generates large amounts of revenue which is expected.

We should take note of the falling effectiveness of social traffic starting from August 2016 to 2018. Trends like this should be monitored by the marketing team or managers, to put less money in marketing through social channels.

On the other side, take note of the conversion rate and revenue from the referral channel. It isn't bringing in a large amount of users as high as organic search or social but its still getting as much or if not more revenue as other channels. This should tell Google to pay attention to how they are giving out referral links. A lot of these referral links may be given out by their own employees which is more likely to generate a sale.

The Google Merchandise store receives a lot of traffic from YouTube, an online video-sharing platform. We can use the User Flow interface in Google Analytics to see the flow of user traffic from Youtube from August 1, 2016 through August 1, 2019 and compare all three years.



(Figure B2)

We can see in the first year, 2016 - 2017, YouTube has been leading users to the Google Merchandise homepage. **84.6%** of those users will exit the site without proceeding to any other pages. The next year, however, Google changed their strategy and had these users landing on a more <u>targeted</u> page. You can see that the landing page is no longer /home but it is now a page designed for YouTube users. This page saves the users coming from YouTube the troubles of navigating through the website to find the items that are related to YouTube. The drop-off rate here has lowered significantly from **84.6%** to **66.8%**. This trend continued the next year, despite having lower numbers, Google maintained a drop-off rate of **66.4%**.

This shows the importance of first impressions as users will immediately leave the site if it doesn't match their taste or they can't find what they are immediately looking for. By making navigation easier for the users, they are more inclined to stay on the site or buy something they are looking for.

Behavior

In Google Analytics, the behavior feature provides information about the customer interactions with the Google Merchandise Store website. Some subcategories that are included in the behavior feature are **all pages**, **landing pages**, **exit page**, **search term**, **and top events**. For this report, the three consecutive time periods were used to determine the customer interactions and how they change over time.

| | Aug. 1, 2016- Aug. 1, 2017 | Aug. 1, 2017- Aug. 1, 2018 | Aug. 1, 2018- Aug. 1, 2019 |
|---------------------------------|---|---|---|
| All Pages Overview | | | |
| Pageviews | 4,115,395 | 4,548,924 | 3,889,817 |
| Avg. Time on Page | 0:00:46 | 0:00:46 | 0:00:50 |
| Entrances | 954,407 | 1,114,813 | 846,247 |
| Bounce Rate | 47.54% | 47.85% | 41.01% |
| Page Value | \$18.62 | \$15.18 | \$1.90 |
| Landing Page Overview | | | |
| Sessions | 954,518 | 1,115,038 | 846,401 |
| % New Sessions | 76.48% | 71.61% | 67.66% |
| Bounce Rate | 47.54% | 47.85% | 41.01% |
| Pages/Session | 4.31 | 4.08 | 4.60 |
| Avg. Session Duration | 0:02:31 | 0:02:21 | 0:03:00 |
| Exit Page Overview | | | |
| Exits | 954,407 | 1,114,813 | 846,247 |
| Pageviews | 4,115,395 | 4,548,924 | 3,889,817 |
| % Exit | 23.19% | 24.51% | 21.76% |
| Search Term Overview | | | |
| Top 3 Search Terms (in order) | gopher, ingress, jersey | gopher, ingress, beanie | gopher, beanie, ingress |
| Total Unique Searches | 749 | 460 | 100 |
| Results Pageviews/Search | 1.11 | 1.12 | 1.08 |
| % Search Exits | 32.31% | 40.00% | 44.00% |
| Time after Search | 0:01:25 | 0:01:06 | 0:01:30 |
| Avg. Search Depth | 2.28 | 2.15 | 1.86 |
| Top Events Overview | | | |
| Top 3 Event Actions (1st - 3rd) | Quickview click, Add to cart, Product click | Quickview click, Product click, Add to cart | Quickview click, Product click, Add to cart |
| Sessions | 337,117 | | 401,678 |
| Pages/Session | 16.02 | 13.28 | 12.90 |
| Avg. Session Duration | 0:10:01 | 0:08:23 | 0:08:52 |
| % New Sessions | 62.52% | 61.14% | 60.37% |

Retrieved from Google Analytics Behavior Report. (Figure C)

To start with, **all pages overview** focuses on what part of the website is more interesting and effective to the customers. According to figure C, in Aug 1, 2017 to Aug 1, 2018, it had the most **pageviews** of 4,548,924 and **entrances** of 1,114,813. This shows that there were more users looking at the website and was performing very well at a page value of \$15.18. The **average time on the page** and the bounce rates are fairly consistent in the first two consecutive time periods, but the **bounce rate** in 2018 to 2019 decreased from 47% to 41%, which benefits the website because more people are staying on the website. Also, compared to the other time periods, the **page value** in 2018 to 2019 is the lowest at \$1.90. The page value is incredibly low because the users did not complete many transactions on the pages and therefore did not

contribute to the eCommerce goal conversion. In order to raise the page value, the website will have to boost their content and usability for those pages.

The **landing pages overview** and **exit pages overview** show many useful information that can be used to learn about the performance of the website. In the landing page, 2016 to 2017 had the highest **percentage of new sessions** of 76.48% while 2017 to 2018 had the highest number of **sessions** of 1,115,038. This shows that the new users from 2016 to 2017 became the "increased" number of sessions for 2017 to 2018 since they are not considered new anymore. The **pages per session** average was consistent in all the years with roughly 4 pages per session. As for the **average session duration**, 2018 to 2019 had the longest at 3 minutes. This proves that more users are staying on the website and looking at the contents longer. In the exit page, 2017 to 2018 had the highest **percentage exit** of 24.51%. This means that more people are leaving the page at a quicker rate. Also for search term overview, the most popular search term was gopher, which was used to access the website.

Top events overview plays a major role in collecting data about customer interactions in the Google Merchandise Store. In the figure C, the highest **number of sessions** is in 2017-2018 with 425,804 sessions. However, in all the three consecutive years, the new users have a higher number of sessions than the returning users. This is because the new users are more likely to explore the website while the returning users know what they are looking for and perform less sessions. The **top 3 events actions** are Quickview click, Add to cart, and Product click. It is interesting to notice that Product click came in second place before Add to cart in terms of number of clicks in 2017 to 2018 and 2018 to 2019. This means that users are mainly browsing and clicking on the product, but they are not interested in buying the products since they did not add the item into their cart to purchase. To increase the number of Add to cart clicks, the website must create products and enhance advertisements that will attract the users to make a purchase.

Conversions

Below, there are three consecutive time periods with each having reports of **Goal completion funnel**, **Shopping behavior**, and **Checkout behavior** about the Google Merchandise Store. These three reports roughly give the same information, but with slightly different perspectives.

The Goal completion funnel provides a very good overall and complete view of the conversion path once an item is added to a shopping cart. It gives a good visual representation of the customers who abandoned the checkout process and shows where they exited to. Looking at the three time periods, in figures D1, D4, and D7 the step with the highest abandonment is the shopping cart. This is useful because the user may not be completely abandoning the buying process. The data depicted in figure D1 shows that a 9,580 of the sessions that exited, simply had a page that timeout and had to sign in again. One thing of note, is that the 2018-2019 period in figure D7 shows an abnormally high number of people who abandoned the payment step compared to other years. Our sample size is too small to really know if this is an outlier.

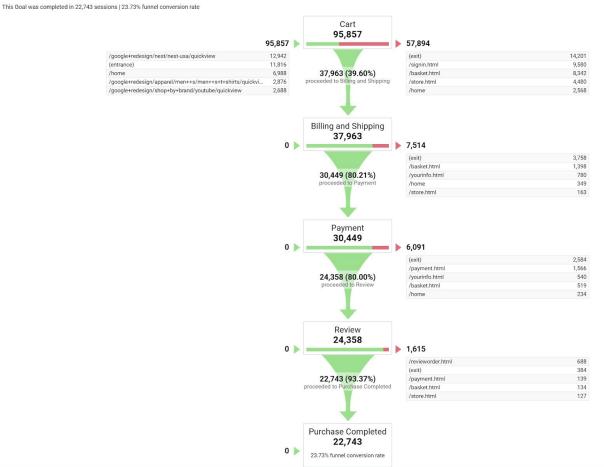
Shopping behavior differs by focusing the beginning of the funnel, showing how many total sessions funneled into how many sessions had product views, which then shows how many of those sessions entered the shopping cart demonstrated in figures D2, D5, and D8. A segmentation that reveals a lot about conversion made is segmenting the audience between new and returning users. In figure D5, the number of new user sessions was almost double the number of returning user sessions; however, the number of returning user completed transactions was double the number of new user completed transactions. This supports the idea of the Pareto Principle, also known as the 80/20 rule of 80% of the sales are attributed to 20% of your customers because a majority of the sales are being made by a very small part of the overall user count. Now combined with metric from audience reports, key customers that produce conversions can be identified and customer niches can be found.

Checkout behavior is very similar to the Goal completion report but it excludes the shopping cart and focusing on the sessions at checkout and the sub steps inside checkout. Checkout behavior is depicted in figures D3, D6, and D9. It too has the benefit that shopping behavior had of segmenting new vs returning customers. Something to note in figure D6, the number of users who entered directly to the transaction page in comparison to going through the entire conversion funnel. This metric could account for some of the users who abandoned the transaction process at another time or it may even represent repeat buyers who have the page saved from previous purchases.

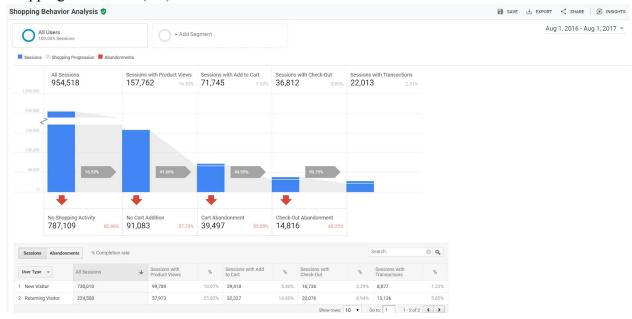
August 1st 2016 – August 1st 2017

Goal completion and funnel (D1)

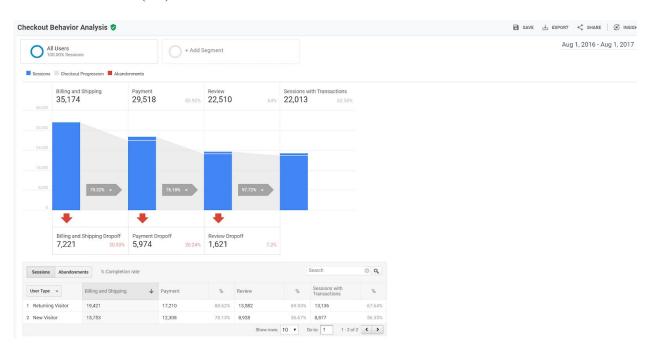
Purchase Completed



Shopping behavior (D2)



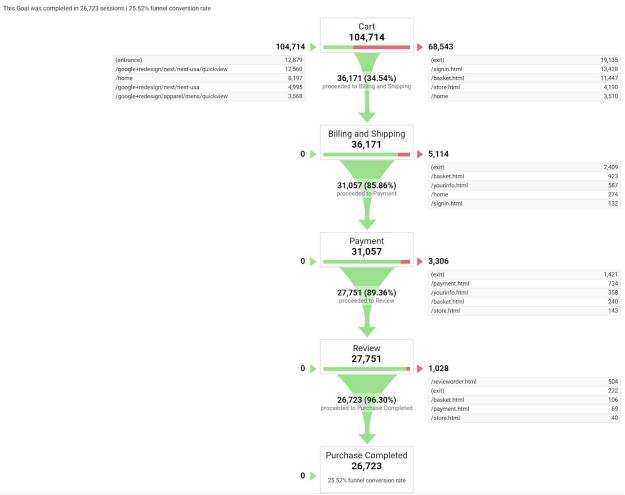
Checkout behavior (D3)



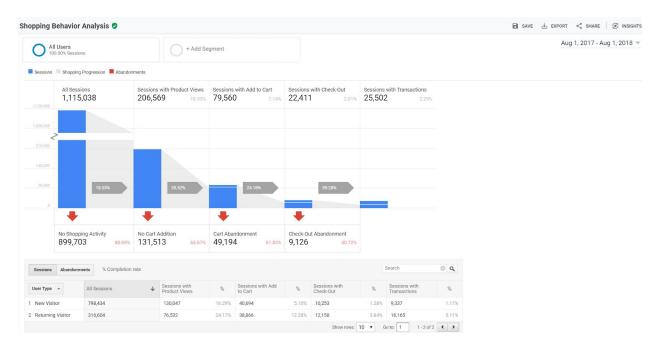
August 1st 2017 – August 1st 2018

Goal completion and funnel (D4)

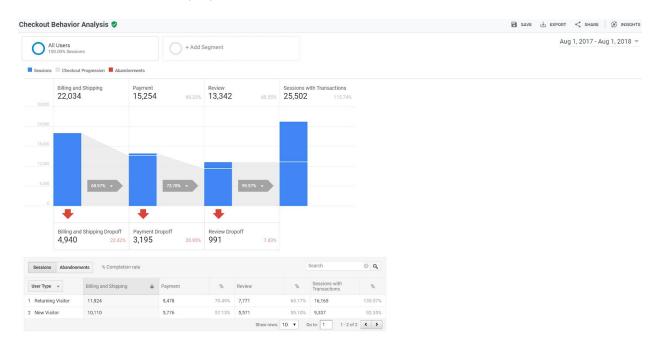
Purchase Completed



Shopping behavior (D5)



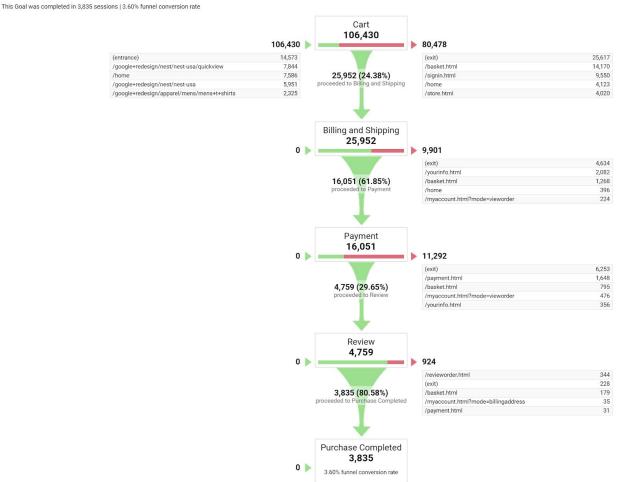
Checkout behavior (D6)



$August\ 1^{st}\ 2018-August\ 1^{st}\ 2019$ (D7)

Goal completion and funnel

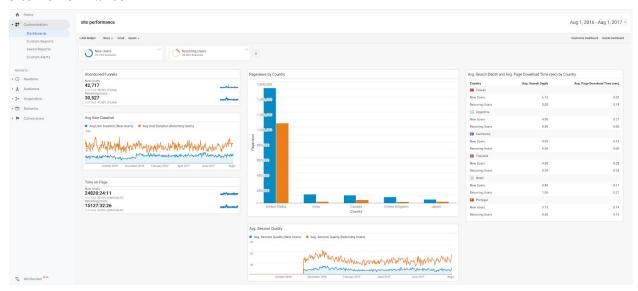
Purchase Completed



Shopping behavior (D8) Shopping Behavior Analysis 🖹 SAVE 🕁 EXPORT < SHARE | 🔗 INSIGHTS Aug 1, 2018 - Aug 1, 2019 🔻 All Users 100.00% Sessions + Add Segment essions with Product Views 86,328 22.01% Sessions with Add to Cart Sessions with Check-Out 24,646 2.5 186,328 2.91% 3,400 846,401 68.29% 40,101 71.79% 21,259 Sessions Abandonments % Completion rate 0 Q % Sessions with Add to Cart 19.71% 27,227 4.75% 10,448 73,453 273.729 26.83% 28.630 10.46% 14.198 5.19% 1.917 0.70% 2 Returning Visitor Show rows: 10 ▼ Go to: 1 1 - 2 of 2 **〈 〉** (D9) Checkout behavior Checkout Behavior Analysis 🖹 SAVE 🕹 EXPORT < SHARE | 💰 INSIGHT Aug 1, 2018 - Aug 1, 2019 🔻 All Users 100.00% Sessions + Add Segment Sessions Checkout Progression Abandonments Billing and Shipping 18,180 Payment 14,746 81.11% 3,227 17.75% 3,400 52.26% 10,889 73.84% 870 Sessions Abandonments % Completion rate 0 Q Search Billing and Shipping 1 Returning Visitor 9,862 9,144 92.72% 2,032 20.60% 1,917 67.35% 1,195 14.37% 1,483

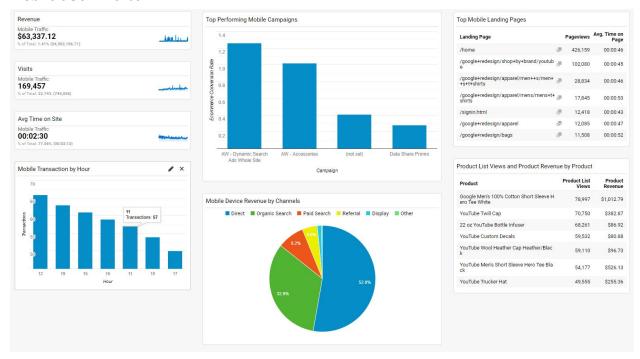
Dashboards

Site Performance



The dashboard provides metrics for site performance on the Google Merchandise Store. I added the segments of **New Users** and **Returning Users** to get an idea of what traffic comes through the website. The number of these users are shown in the "Abandonment Funnel" widget and shows the ratio of new vs returning for an overall understanding. The **average user duration** shows how long a user stays on the site. Something interesting is that returning users on average spend more time on the website than new users, and they have a higher reported session quality than new users. In contrast, new users spend more time on a single page vs returning users. This is most likely due to returning users being more familiar with navigating the site. The last three widgets of "Average Page Load Time (sec)", "Pageviews by Country", and "Avg. Search Depth and Avg. Page Download Time (sec) by Country," are indicators of good website health and give indicators of where resources should be focused whether that be to increase traffic from one country or to maintain the traffic from another.

Mobile eCommerce



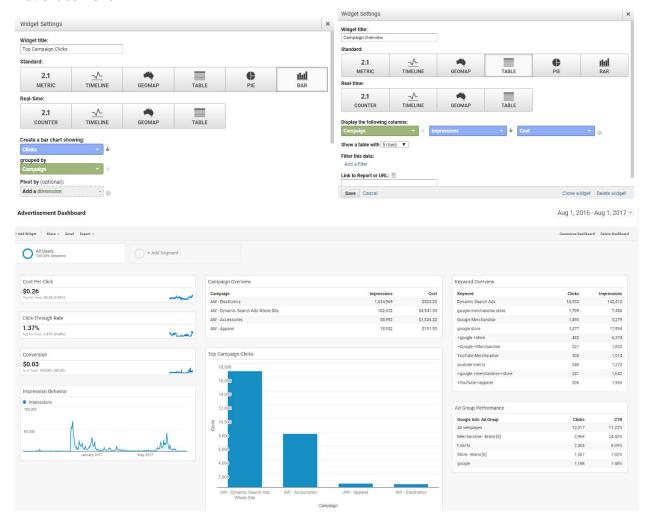
Dashboard's Date Range - (Aug 1, 2016 - Aug 1, 2017)

This dashboard is only filtering through mobile traffic. On the top left of this dashboard are metrics that are essential for ecommerce sites in general: Revenue, User Traffic, and Average Time on Site

Some interesting findings in this dashboard:

- Mobile Transaction by Hour shows that most transactions are being made either at noon or in the evening. This means that mobile ads should be heavily targeted at these times in order to save costs on ads.
- Top Performing Campaigns shows that the Dynamic Search Ads, an ad system by Google that revolves around their search system, is performing really well. It also shows that there is a high amount of interest in Accessories among mobile users.
- There are a few products that a lot of mobile users are clicking on but aren't buying. It can be worth it for Google to look into these products to see why mobile users are clicking on them but stop short of buying them.

Advertisement



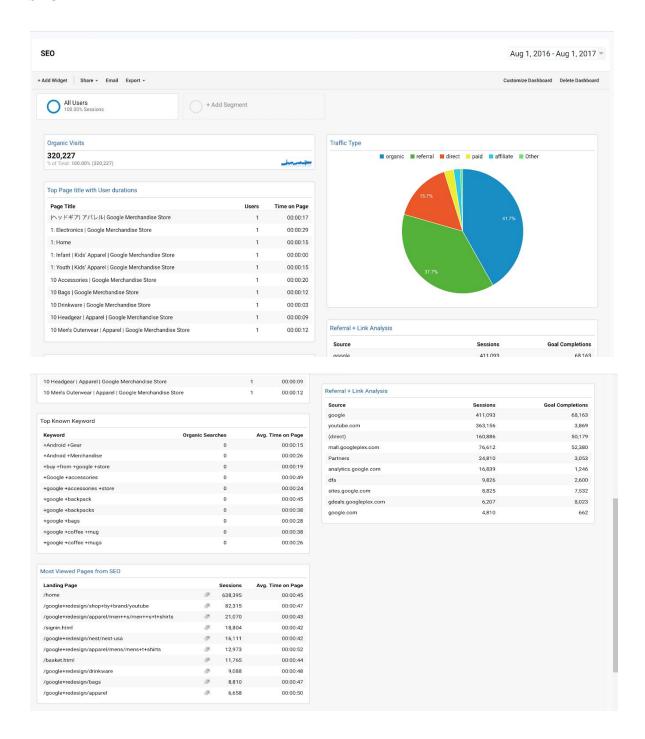
This dashboard consists of data metrics relating to the advertisement using the time period from August 1, 2016, to August 1, 2017. On the left side, the widgets list out the **cost per click, click-through rate, and conversion** for that period. These are important metrics because they measure the performance of advertisements. Based on the **cost per click price**, the website was not paying as much on advertisements and they are making more revenue in return. The line graph represents the **behavior of impressions** over time. Impressions are how often the specific advertisement was shown. There was a high impression rate near the winter season because there was a lot of advertisement and sales during the holiday season and the best time for people to buy products.

In the middle column, the **campaign overview** lists the top campaigns that have the most **impressions** and how much it **cost** to have them. Under that table is a bar chart that contains the number of **clicks** each campaign has. These two are useful to compare because even though AW - Electronics has the most number of impressions, not many users are clicking on it and therefore

not purchasing any products. The website should invest more impressions on AW - Dynamic Search Ads Whole Site and AW - Accessories instead since they generate the most clicks.

The right column has the **keyword overview** and the **Ad group performance**, which lists the top keywords and top Ad group based on the number of clicks. Comparing the clicks with the impressions and CTR, we should focus on dynamic search ads and Merchandise - Brand.

SEO



The **Search Engine Optimization** Dashboard ranges from August 1,2016 to August 1, 2017. Good SEO means positive users experience. The intention of that is offering users the information they are looking for in fewer clicks, quickly and easily. Local SEO enhances that visibility and lets potential customers find the answers, and the businesses providing those

answer .Focusing on SEO can increase both the quality and quantity of website traffic, as well as exposure to your brand. Knowing what **keywords**, type of content, and where your visits are coming from can help you increase brand awareness, revenue, and traffic. The pie chart shows **traffic type**. Organic search results are the ones that are earned through effective SEO, not paid for (referrals and advertisement). 41.7% of traffic was **organic traffic**, 37.7% was **referral traffic**, and 15.7% was **direct traffic**.

The **top page title** with user duration was on page was 1: Electronics | Google Merchandise Store and the shortest time on page was 1: Infant | Kids' Apparel | Google Merchandise Store. Knowing the time on page, can give better insight on revamping page titles to draw in more traffic. Electronics, accessories, and youth apparel has the top page title with user duration. Bags, Headgear, and Men's outerwear had the average user duration around twelve seconds.

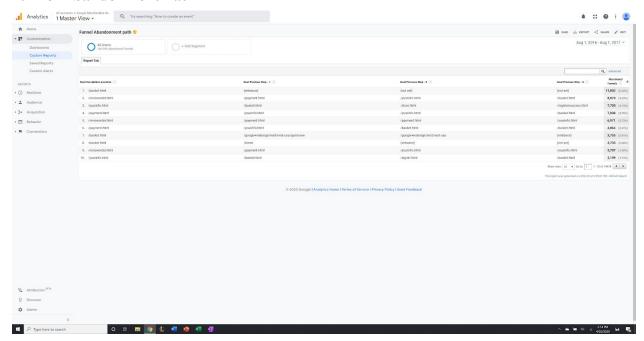
The top known **keywords** are, +google+backpack, +google+accessories, and +google+coffee+mug. **Keywords** give us clues to who people are and what they want, allowing us to better meet their needs. To generate more revenue and traffic, one can focus on releasing new merchandise. The average time spent on the pages with keywords are from 0:10-0:50 seconds.

Most **viewed page from SEO was** /home, /google+redesign/shop+by+brand/youtube, and /google+redesign/apparel/men++s/men++s+t+shirts. Knowing your top **b** and how many sessions and average time on page, can help you see where the most traffic is generating from. Knowing the shortest average time on page and lowest amount of session, we can focus on how to attract users to bring up those **sessions** and **increase average time on page**.

Referral traffic is a search engine's method of reporting and tracking visits that come to your website from other sites. Referral and link analysis shows which referral site is generating the most traffic. Google and Youtube brought in the most sessions. Implementing strong, quality SEO on a brand's website and digital properties is always going to bring in more traffic and understanding how to market.

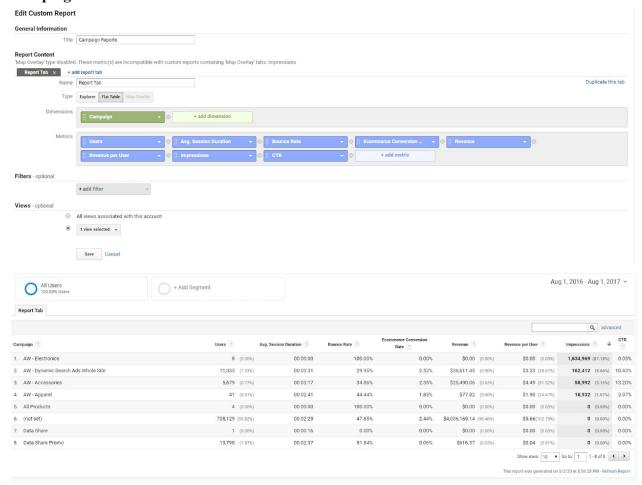
Custom Reports

Funnel Abandonment Path



This report provides information on the Funnel Abandonment Path. Useful information includes the amounts of funnels that were abandoned listed in descending order. As seen in milestone 2 figure D1, the highest funnel abandonment occurs in the shopping cart. This report also shows the previous 2 steps of the funnel that were taken before abandonment. This information can be crucial when trying to understand why a user abandoned their funnel. Something to note is that the shopping cart only has the highest abandonment rate when it is entered directly with no previous pages accessed.

Campaign

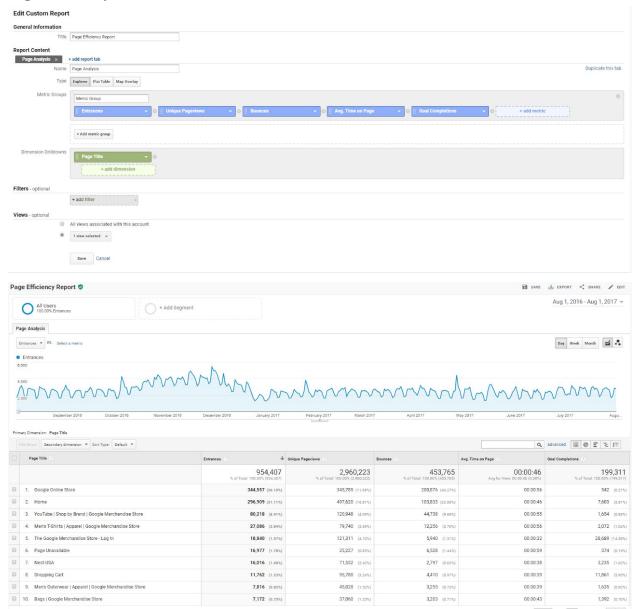


This custom report focuses on campaigns. All of these metrics are chosen to evaluate the performance of each campaign. By comparing values, you can tell which campaigns are worthwhile versus which ones are producing enough traffic or revenue. A secondary dimension about the user can be added to further analyze the type of users that are most likely to respond to these campaigns.

An interesting finding using this report is that **AW-Electronics** have the largest amount of impressions but has a disappointingly low amount for CTR and revenue per user. This clearly means that this campaign isn't worthwhile to Google and should be removed and be completely revamped.

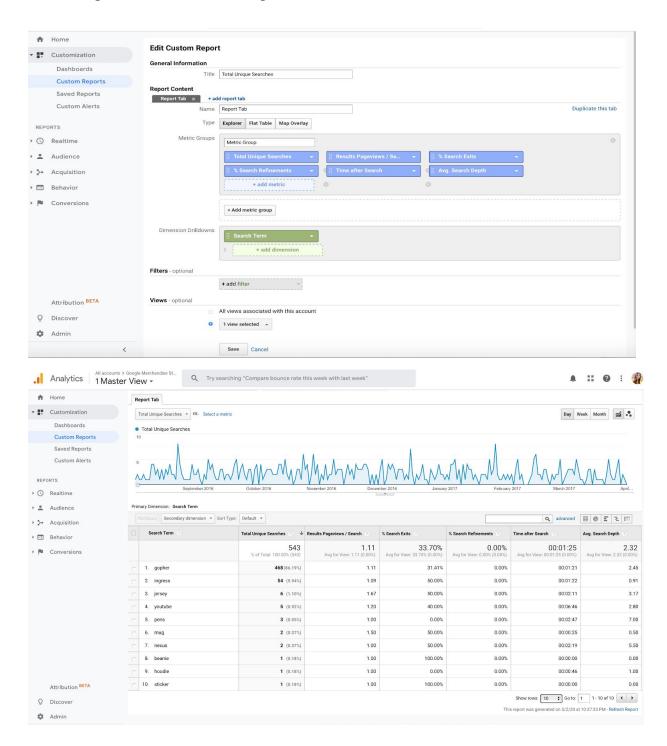
Another interesting finding is that **AW-Accessories** has a large revenue per user value as well as a high CTR rate of 13.2%. It means that users that are brought to the site because of the campaign are actually looking to buy accessory products. This means that Google should look into providing more accessory related products/

Page Efficiency



This custom report focuses on the performance of page titles. Metrics used in this report are **entrances**, **unique pageviews**, **bounce rates**, **average time on page**, **and goal completions**. From comparing these values, the website can tell which content is most engaging, what type of content performs the best, how long users normally spend on each page, and which contents generate the most business value.

Total Unique Searches Custom Report



Total Unique search, excludes multiple searches on the same keyword during the same session. Percentage of search is search exits divided by total unique search. Results pageview, percentage of search exits, percentage of search refinements, time after search, average search depth are metrics of the total unique search report. Search term was the dimension. These are the

top search terms, their search exits, refinements, and average search depth. This is what users are looking for and can help you improve Ecommerce and bring up revenue. Gopher was the top unique search term and had an average search depth of two minutes and forty-five seconds from August 1, 2016- August 1,2017.

Google DataStudio Report

User sessions per page



This report from Google Data Studio shows which pages on the google merchandise store show the number of sessions per user over three time periods from 2016-2019. This report can be used to view which pages are performing well. "Littledata surveyed 3,647 sites in February 2019 and found the average sessions per user was 1.4. If your site has sessions per user of between 1.2 and 1.7 then you are average compared with this benchmark. With less than 1.2 you are definitely underperforming the sessions per user benchmark" (Little Data)¹. In the report, the highest ratio is .94 for the home page in the 2017-2018 year and according to this benchmark, the Google Merchandise Store is underperforming.

1

Product Evaluation

| | Category (Enhanced E (3) - | duct Evaluation Rep | ort | | |
|----------|--|---------------------|------------------|------|-----|
| Aug 1, 2 | 016 - Aug 1, 2017 | | | | ٠ |
| | Product | Product Revenue • | Unique Purchases | Avg. | QT |
| 1. | Google Men's Zip Hoodie | \$36,247.24 | 418 | | 1.7 |
| 2. | Google Men's 100% Cotton Short Sleeve Hero Tee Black | \$22,031.5 | 556 | | 2.5 |
| l, | Google Men's 100% Cotton Short Sleeve Hero Tee White | \$20,322.09 | 632 | | 2.1 |
| 4. | BLM Sweatshirt | \$15,913.34 | 407 | | 1.1 |
| 5. | Google Twill Cap | \$15,199.88 | 333 | | 4 |
| 5. | Google Baby Essentials Set | \$14,004.28 | 147 | | 3.4 |
| 7. | Google Women's Fleece Hoodie | \$13,672.33 | 207 | | 1.3 |
| В. | YouTube Twill Cap | \$11,390.91 | 193 | | 6.0 |
| 9. | Google Men's Watershed Full Zip Hoodie Grey | \$11,051.53 | 147 | | 1.0 |
| 10. | YouTube Men's Fleece Hoodie Black | \$10,470.2 | 165 | | 1.3 |
| Aug 1, 2 | 017 - Aug 1, 2018 | | 1 - 100 / 211 | < | |
| Control | Product | Product Revenue • | Unique Purchases | Avg. | QT |
| 1. | YouTube 3 lines Tee Grey | \$30,741.56 | 154 | | 9.3 |
| 2. | YouTube Tee Black | \$28,889.3 | 328 | | 4.3 |
| 3. | Google Zip Hoodie Black | \$24,475.14 | 431 | | 1.1 |
| 4. | Google Tee Blue | \$22,652.67 | 736 | | 1.5 |
| 5. | YouTube Wordmark Crew Grey | \$20,017.96 | 109 | | 3.7 |
| 6. | Google Twill Cap | \$19,411.98 | 652 | | 3.1 |
| 7. | Google Tee White | \$17,137.97 | 636 | | 1.3 |
| 8. | Google Bike Tee Navy | \$16,777.02 | 710 | | 1.2 |
| 9. | Google Tee Green | \$15,897.59 | 598 | | 1.4 |
| 10. | Google Women's Tee Grey | \$15,478.16 | 388 | | 2.1 |
| | | | 1 - 100 / 213 | < | ; |
| Aug 1, 2 | 018 - Aug 1, 2019 | | | | • |
| | Product | Product Revenue + | Unique Purchases | Avg. | QT |
| 1. | Google Zip Hoodie Black | \$10,677.89 | 181 | | 1.1 |
| 2. | Google Bike Tee Grey | \$7,249.14 | 179 | | 2.0 |
| 3. | Google Black Tee | \$6,873.6 | 272 | | 1.3 |
| 4. | Google Bike Tee Navy | \$6,750.41 | 264 | | 1.3 |
| 5. | Google Pullover Hoodie Grey | \$6,076.8 | 111 | | 1.0 |
| 5. | Google Tee White | \$5,400.48 | 228 | | 1.1 |
| 7. | Google Crewneck Sweatshirt Navy | \$4,866.11 | 97 | | 1.1 |
| В. | Google Tee Blue | \$4,450.53 | 176 | | 1.2 |
| 9. | YouTube Wordmark Crew Grey | \$4,189.92 | 110 | | 1.2 |
| | Google Crewneck Sweatshirt Grey | \$3,607.98 | 71 | | 1.1 |

https://datastudio.google.com/reporting/25f3aa6f-91f8-4136-8c53-152c47b3d83b

This report was created to help evaluate product performance. The metrics included are **product revenue**, **unique purchases**, and the **average quantity purchased**. There is also a filter control that can filter base product categories which can help compare products from specific categories such as apparel or drinkware.

Top Event Actions

| | Event Action | Total Events | Revenue | Ecommerce Conversion Rate |
|--------|----------------------|--------------|----------------|---------------------------|
| 1. | Quickview Click | 445,690 | \$3,603,567.02 | 12.64% |
| 2. | Add to Cart | 160,228 | \$3,753,206.18 | 28.66% |
| 3. | Product Click | 104,748 | \$951,978.32 | 9.47% |
| 4. | Promotion Click | 54,942 | \$75,186.81 | 2.02% |
| 5. | Remove from Cart | 22,354 | \$789,571.1 | 31.62% |
| 5. | Onsite Click | 6,833 | \$30,113.66 | 3.32% |
| | | | | 1-6/6 < > |
| Aug 1, | 2017 - Aug 1, 2018 * | | | |
| | Event Action | Total Events | Revenue | Ecommerce Conversion Rate |
| 1. | Quickview Click | 552,687 | \$4,394,193.64 | 11.4% |
| 2. | Product Click | 157,359 | \$1,720,950.77 | 9.73% |
| 3. | Add to Cart | 172,309 | \$4,492,005.35 | 29.23% |
| 4. | Promotion Click | 48,689 | \$87,255.44 | 3.04% |
| 5. | Remove from Cart | 21,246 | \$704,114.89 | 29.94% |
| 6. | Onsite Click | 12,494 | \$34,361.57 | 2.7% |
| | | | | 1-6/6 < > |
| Aug 1, | 2018 - Aug 1, 2019 * | | | |
| | Event Action | Total Events | Revenue | Ecommerce Conversion Rate |
| 1. | Quickview Click | 488,251 | \$320,766.19 | 1.49% |
| 2. | Product Click | 156,227 | \$138,750.23 | 1.34% |
| 3. | Promotion Click | 90,338 | \$32,559.23 | 0.84% |
| 4. | Add to Cart | 118,245 | \$332,015.87 | 4.79% |
| 5. | Remove from Cart | 18,769 | \$91,455.42 | 5.3% |
| 6. | Onsite Click | 5,650 | \$989.85 | 0.6% |

 $\underline{https://datastudio.google.com/u/0/reporting/56eb766c-6f28-4a04-af83-09ad7ba0dbde/page/aC3NB}$

This report gives an overview comparison of the top event actions from Aug 1, 2016, to Aug 1, 2019. The metrics that are used are **event action**, **total events**, **revenue**, **and eCommerce conversion rate**. Overall, the quick view click has the most **total number of event interactions**, generates a high amount of revenue, and has an average eCommerce conversion rate. Also, adding to cart and removing from cart consistently have high **conversion rates** compared to the other event actions. This is because these two event actions are closely related to making transactions and obtaining **revenue**.

Aug 1, 2016- Aug 1,2017 Source / Medium searchwork.google.com / referral adeals.googleplex.com / referral 29.02% 2.435 basecamp.com / referral 50% chat.google.com / referral analytics.google.com / referral creatoracademy.youtube.com / referral O96 1,571 Partners / affiliate 1-84/84 August 1, 2018- August 1, 2019 0.36% 0.36% (direct) / (... google / ...

Sources/Medium with top Ecommerce rate and New Users

https://datastudio.google.com/s/oU00Bu9KvF8

The data studio shows a comparison of top source/medium from August 1,2016 to August 1, 2019 with the top Ecommerce conversion rate and new users. Each year, the source/medium, Ecommerce conversion rate, and new users number would change. g.deals.googleplex.com/referral and voice.google.com/referral had the highest Ecommerce Conversion rate and new users in 2016 to 2017. Organic traffic had the highest Ecommerce conversion rate and new users.

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