

Algorithmic Digital Marketing

Summary	https://codelabs-preview.appspot.com/?file_id=14xGLH1BfcZQEaU_bn_ehgvOG29jFI1E0rnoZDZpL1ZQ#0
URL	https://us.pg.com/
Category	Web



About Procter & Gamble

Procter & Gamble, also known as P&G, is the biggest consumer goods company in the world. Procter & Gamble, which was founded in 1837, is the world's largest maker of household and personal products by revenue, with its products reaching a global audience of 4 billion people. P&G's product range includes 23 brands in the beauty, healthcare, and food industries, including Tide detergent, Pampers diapers, and Gillette razors, which produce over \$1 billion in yearly revenue, with the company's overall revenue exceeding \$76 billion in fiscal 2021.

P&G's global aggregate market share increased 50 basis points, and 33 of their top 50 country/category combinations held or grew share for the year.

P&G has a strong position in the industry categories and markets in which it operates, typically leading or having a considerable market share.

1.What is the product?

Proctor and gamble have 65 individual brands are organized into 10 product categories:

The different categories are:

- FABRIC CARE
 1. TIDE

2. BOUNTY
 3. ARIEL
 4. BOUNCE
- HOME CARE
 1. DAWN
 2. AIR
 3. Mr. CLEAN
 4. AMBIPURE
 - BABY CARE
 1. PAMPERS
 - FEMININE CARE
 1. ALWAYS
 2. TAMPAX
 3. NATURELLA
 - FAMILY CARE
 1. BOUNTY
 2. CHARMIN
 3. PUFFs
 - GROOMING
 1. GILLETTE (Fusion, Mach, Cream)
 2. BRAUN
 3. VENUS
 - ORAL CARE
 1. ORAL B
 2. CREST
 3. FIXODENT
 - PERSONAL HEALTH CARE
 1. BION3
 2. KYTTA
 3. Nyquil
 - HAIR CARE
 1. HEAD AND SHOULDERS
 2. PANTENE
 3. REJOICE
 - SKIN & PERSONAL CARE
 1. OLAY
 2. OLD SPICE
 3. SAFEGAURD
 4. IVORY
 5. SK- II

P&G Brand list - <http://media.bizj.us/view/img/3364651/pg-brand-list.pdf>

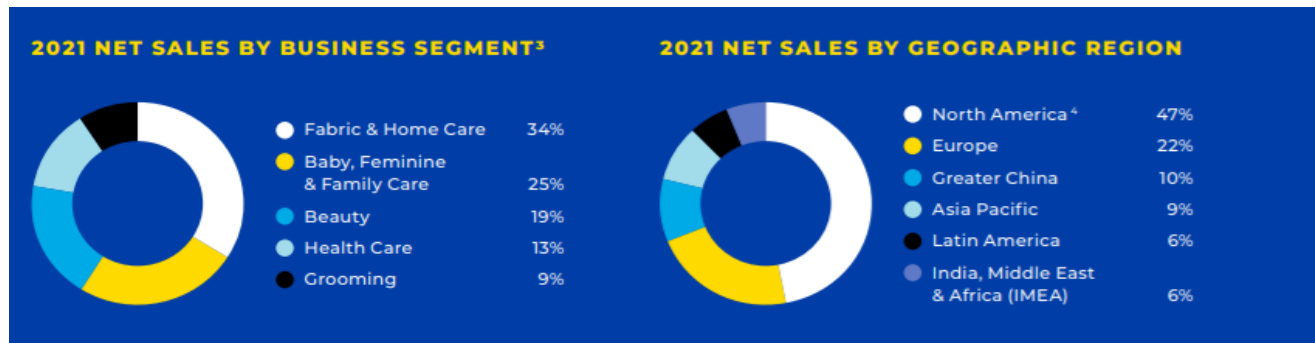
2.How are they selling it?

- P&G is one of the world's biggest advertisers and, like some other consumer packed goods companies, it has spent several years cutting spend in the face of lacklustre sales.
- As one of the world's largest advertisers, P&G is trying to reinvent brand building — disrupting the advertising industry to drive innovation and deliver superior experiences for consumers. They have created some new tools like “**smart audiences**” to reach consumers with greater precision and to serve them with more useful, relevant content at the right frequency.
- They support their products with advertising, promotions, and other marketing vehicles to build awareness and trial of our brands and products in conjunction with our sales force.
- They believe that this combination provides the most efficient method of marketing for these types of products. Product quality, performance, value, and packaging are also important differentiating factors.
- They spend enormous amount of money on advertising costs, charged to expense as incurred, include worldwide television, print, radio, internet, and in-store advertising expenses and were **\$8.2 billion in 2021**
- One of the most advertised brands under P&G is Gillette, Pamper, Tide, Head and Shoulders etc. The digital marketing and ad presence for Gillette have always been enormous.
- **P&G Focuses on Selling the "Social Impact" through their Product.**
Gillette Ad Campaigns mainly focuses on that



- Their major source of sales is:
 - a. **Amazon** where **Tide** is one of the bestselling products.

- b. **Walmart** where **Bounty** leads the way.
- c. They are directly sold to customers on channels like above then their own website online



3.How is it priced?

P&G is one of the biggest consumer goods companies in the world and their customer base is worldwide. Every consumer rich or poor uses one or the other products sold by P&G in their lifetime.

Here are few of the goods that are sold by PG and are categorized as below:

1. Daily Essentials: These are low priced items which can be used by any consumer and comes under the **less priced** category Ex: Tide, Downy, Pampers, Bounty, Health Care.
2. Beauty Products: The items sold by them are not a necessary for all consumers, but these are prices from anywhere between **moderate to high**. Some of the brands that fall under this category are Olay, Olay Professional Pro-X line, SK – II, Snowberry etc.
3. Grooming, Oral care Products: The items sold by them are not a necessary for all consumers, but these are prices from anywhere between **low to high**. Ex: Oral -B toothbrushes and pastes fall into the affordable category whereas Oral – B electric brush falls into the luxury category.

Saying all the above we can conclude that as most of the products sold by P&G are daily essential and consumer items, they are low in price and affordable by many.


But Due to recent raw material shortage there are plans to increase the prices of daily essentials items such as pampers, Bounty etc.

4.What promotions are they using?


- Sign-up bonus on the website.

- Rewards Catalogs which contain access to – Cause Donations, Sweep Entries, Digital Subscriptions, Gift Cards etc.


Start earning



Take a survey
Earn 25 points + a donation to your cause for each survey you take.



Scan a receipt
Earn 50 points + a donation to your cause for every P&G product purchased.



Refer a friend
Invite a friend to join P&G Good Everyday and earn 50 bonus points.







[MORE WAYS TO EARN](#)

Coupons

Whether in store or online, you can save big on the brands that are helping us do good.

PRINT AT HOME

PROMO CODES

 <p>\$3.00 \$3.00 OFF ONE Gain® Flings 42 ct... Offer Details</p> <div style="display: flex; justify-content: space-between; align-items: center;"> 1 Add to basket + </div>	 <p>\$3.00 \$3.00 OFF ONE Downy® Liquid Fabr... Offer Details</p> <div style="display: flex; justify-content: space-between; align-items: center;"> 1 Add to basket + </div>	 <p>\$3.00 \$3.00 OFF ONE Dreft® Newborn Liq... Offer Details</p> <div style="display: flex; justify-content: space-between; align-items: center;"> 1 Add to basket + </div>
 <p>\$3.00 \$3.00 OFF ONE Tide® PODS 32 ct o... Offer Details</p>	 <p>\$3.00 \$3.00 OFF ONE Tide® Liquid Laund... Offer Details</p>	 <p>\$2.00 \$2.00 OFF ONE (1) Stressballs Pr... Offer Details</p>

- As most of the products are sold to the retailers such as Walmart, Target, Costco etc. the discounts and promotions are given by the retailers too and bulk purchase gives more discount to the consumers.

5.What algorithmic marketing services are they using?

Marketing and Advertising

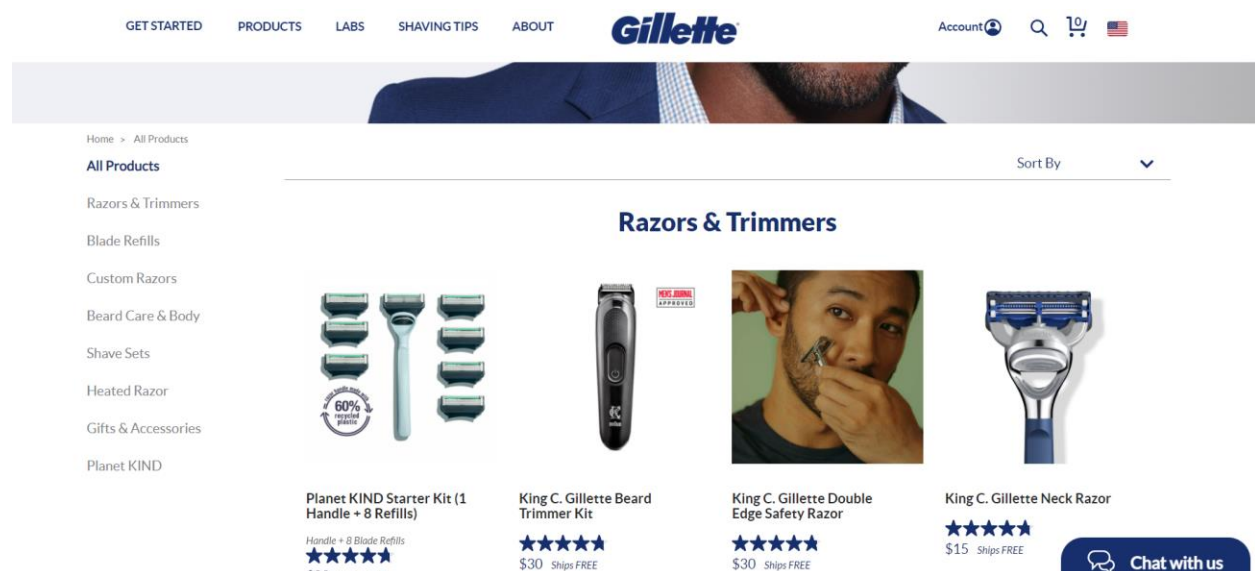
- During a financial presentation, Procter & Gamble revealed a plan to employ data, analytics, and technology to target marketing activity, automate further manufacturing functions, and cut supply chain costs more precisely.
- P&G has transitioned from "**mass blasting**" **ad campaigns** to marketing that addresses consumers with one-on-one precision, thanks to data and analytics, according to the business. This has resulted in a reduction in needless spending and an increase in efficiency.
- P&G's goal with these initiatives is to sharpen its competitive edge in a digitally driven market that has experienced major changes in consumer purchasing behaviors.
- P&G is collecting over one billion consumer identifications utilizing its own data management platforms around the world. It has also hastened the implementation of **performance analytics** by hiring its own data scientists to use AI tools such as chatbots.
- They are Reducing "waste" by **20%** while improving **reach by 10%**. "Moving away from inefficient mass marketing and toward one-on-one brand building fueled by data and technology."

Automating the Supply Chain

- P&G is transforming how they work with advanced capabilities and analytics. Their supply network is quickly becoming touchless and more efficient.

Search

- They have a search bar through which a customer can go to a particular category of product then based on the filters they can narrow down their search.



Innovation

- They have developed something called “**consumer pulse**,” which uses **Bayesian analysis** to scan the universe of comments, categorize them by individual brand, and then put them on the screen of the relevant individual.
- When we see the comments about the P&G brand. This allows for real-time reaction to what’s going on in the marketplace, because we know that if something happens in a blog and you don’t react immediately—or, worse, you don’t know about it—it could spin out of control by the time you get involved.
- Ex: when they rolled out a new product called Downy Unstopables, a fragrance addition you can add to your wash, and the real-time comments from consumers about the product’s characteristics are helped them figure out how best to join in the discussion through our marketing efforts.

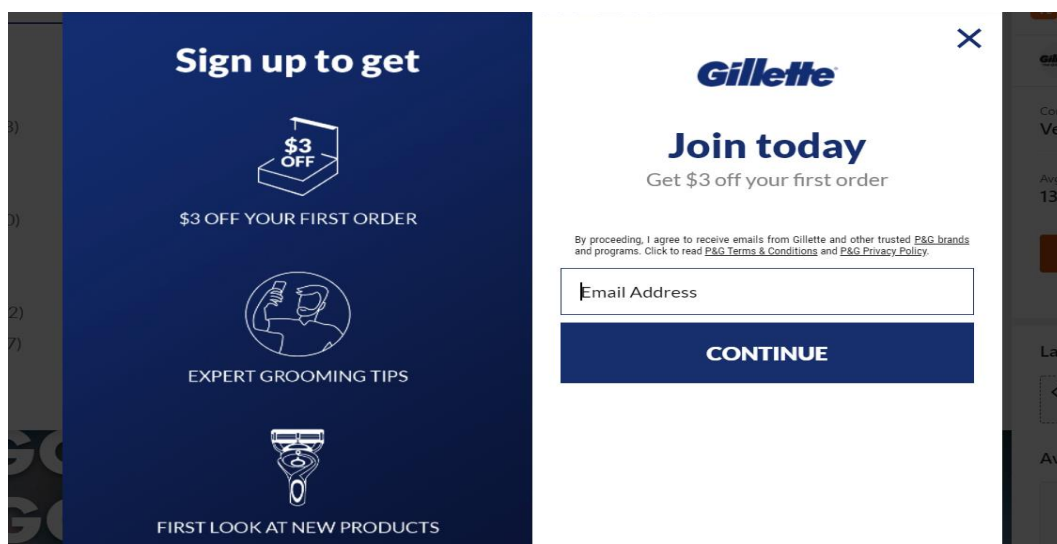
6.What datasets do you think you will need to build these algorithmic services?

a. How frequently will data change?

b. How would you store these datasets?

Datasets

- Site Navigation and search historical data of a customer helps to choose and understand the specific purchase pattern.
- Purchasing history of a customer helps us to make future recommendations and specific offers.
- Customer or member record helps to get their contact details to provide them details about the latest product, offers, and discounts.



Frequency of Data Change

- Site navigation and history search data are updated in real time and are dependent on-site traffic.
- When a consumer makes a new purchase, the purchase history data is updated.
- Customer directory updates, such as when a customer makes a change or when a new member is added to the directory.

Storage of Data

- P&G partnered with **Google Cloud** to **store** and analyze our brand and marketing information. Since then, they have been migrating their consumer information into a **data lake**.
- The **data lake** gives a consistent, unified view of the consumer, and lets them create omni-channel consumer journeys with this rich data lake environment, their data scientists and business analysts can create algorithms to solve some of our toughest questions.
- Increasingly, they turn those predictions into a prescription—so they can automate the result of the algorithm and inject them into the transactional and planning systems, so mainstream decisions are automated.

7. Review the jobs/career site and search for Data/ Data science positions (<https://www.stitchfix.com/careers/jobs#below-the-fold>).After review of the site, what technologies and programmatic services is the company using?

Position	Technologies and Programmatic Services
Data Analyst	Enovia, QuickBase
Data Architect	SQL, NoSQL, Cloud Technologies, Python, ER data Studio
Data Engineer(Data and Analytics)	Python, Sql, Data Modeling, PySpark, Hive, Microsoft Azure, CI/CD Tools, SCRUM, DevOps
Data Engineer	Microsoft Azure, Google Cloud Platform, Python, Scala, Java, database / data modeling, Spark, Hive, Beam, NoSQL databases, CI/CD tools.
Data Scientist	Unix/Linux, Hadoop, Spark, MapReduce, SQL, HIVE, R, Python, C++, Java, Scala, Parallel and Distributing Computing, Keras, Tensorflow, KNIME, Tableau
Cloud Data Engineer	AWS, Azure, or GCP, ETL in SQL and NoSQL data stores

8.How is the company tracking visitors? (Review the site's webpage to check for google analytics etc.)

- Basically, companies track the incoming traffic by making use of google analytics which intern reads the data from the cookie. Customers arrive at your sight by variety of ways may it be Search engine, social media, Email, Advertising, so the companies make use of google analytics track the traffic coming from various sources and based on that they decide the method of advertising and targeted users.
- when a user arrives on your website the Google Analytics code executes and looks to see if there is a _ga cookie already present. The _ga cookie is used to uniquely identify users, specifically with the third and fourth set of numbers explained above. Google Analytics then looks for hits that have the same distinct Client ID and connects hits that occur during the same window of time into what we call Sessions.
- A User, or a unique Client ID, will have anywhere from one-to-many sessions that are associated with a particular user. Within our Google Analytics reporting, the Client ID is also responsible for data collection behind both the New and Returning Users dimensions. If there is one, great – you are a returning user! If a _ga cookie is not present, it will randomly generate a new Client ID for the new user.
- Advanced data analytics lets us offer consumers the best selection of products at their local stores and reach them on their preferred channels. We want to understand and serve our consumers better than anybody else, and data helps us do that. At P&G, we believe in a multi-cloud environment as the way forward in modern technology. We maintain data across functional areas to serve many businesses use cases.

Some of the benefits of making use of Google Analytics is as follows:

- See how many users are on your site right now.
- What Cities and countries your users are visiting from.
- Finding out what devices your audience uses.
- Find your audience interests.
- The channel that drives the most traffic.
- Keep track of your marketing campaigns.
- Track how users navigate your sight.
- Track top selling products and who buys them.

Things that google analytics can't do:

- It cannot track individual user.
- Process historical data.
- Tell you what the user did on social media.
- When a user deletes his browser cookie.