

Our Team: Group 14



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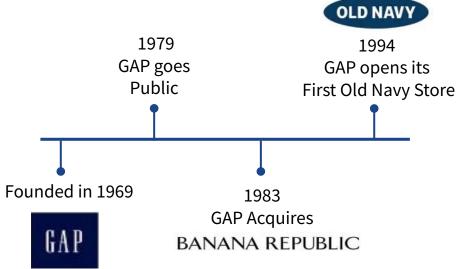
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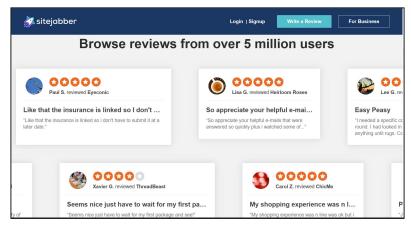
The Origins

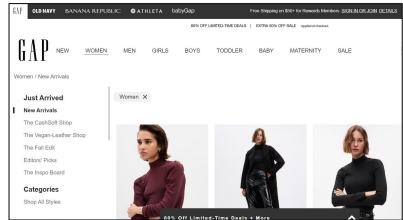


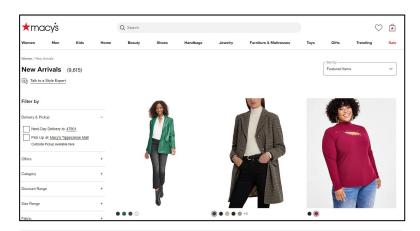
Business Case

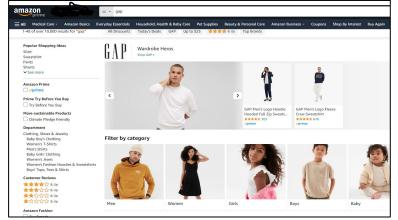
- Art Peck, CEO of GAP fired his creative directors in 2015 to decentralise the creative process & transition into big data business model.
- In the following slides, our objective is to assess the appropriateness of Pecks' choice to terminate the creative directors. Furthermore, we will examine the significance of big data within the data-centric creative process and its broader role within the marketing team.

Data Sources









Process Flow:



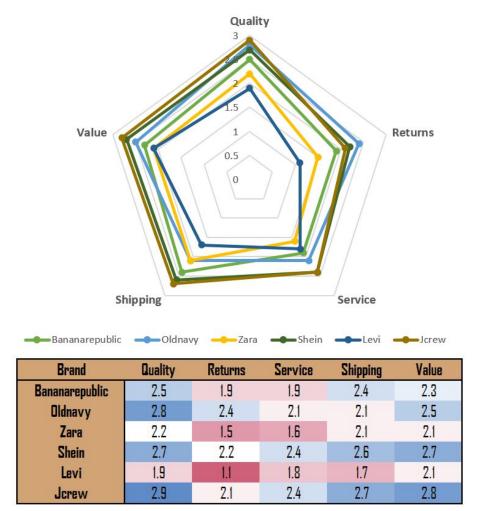


Brand Landscape:

Our first analysis involved data scraping from the website SiteJabber to obtain customer ratings across various dimensions for Gap Inc.'s brands as well as competitor brands. This approach was designed to assess how our brands perform in comparison to industry standards.

Insights Gathered:

- Banana Republic should focus on returns & customer service to be able to compete with J.Crew, it's direct competitor, to improve sales
- Old Navy should also look into logistics
 & its services to improve customer
 satisfaction.
- Additionally, Banana Republic could improve quality of its product, given that quality is its primary focus.





Product Level Analysis:

- With our second analysis, we scrapped ratings of products of one category from Amazon and GAP website
- The idea was to decipher if the product quality of GAP is at par with Amazon
- A t-test was run on the sampled data analyzing the distribution of ratings from the two websites

Analysis and Insights:

Ho: GAP is not doing better than Amazon

Ha: GAP doing better than Amazon,

Since t-value is greater than the critical value, we cannot reject null hypothesis; this means we don't have evidence to conclude that GAP is doing better than the market. This requires a comprehensive dive into the company's product portfolio.

Amazon						
Total number of Reviews	813.82K					
Number of ratings >=4	709.63K					
% of Ratings >4	87.20					

GAP	
Total number of Reviews	2247
Number of ratings >=4	1967
% of Ratings >4	87.54

Sample Size	2247			
Alternative Hypothesis	<87.19%			
Null Hypothesis	>=87.19%			

T-static Denominator	0.006967		
T-statistic Numerator	0.34		
T statistic	49.03036		
Critical Value @ 95% confidence interval	1.645532		

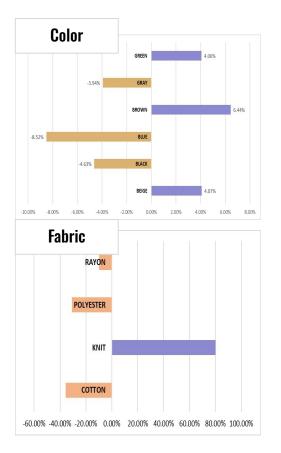


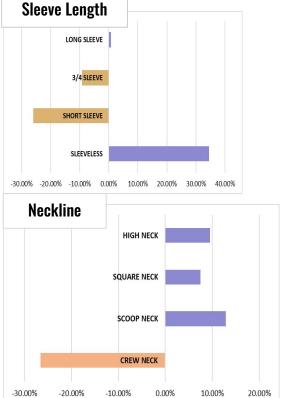
Product Portfolio Analysis:

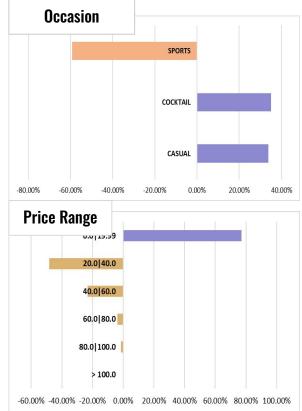
- For our third analysis, we gather quantitative information for from Macy's official website to decipher the product portfolio and compare it with that for Old Navy.
- Six product features were finalized to gauge the disparities by scraping data from both the websites.
- <u>Features considered</u>:
 Neckline | Fabric | Sleeve Length | Color | Occasion | Price Range

```
1 with open('macys best sellers color data.csv','w',encoding="utf-8",newline='') as file:
        writer = csv.writer(file)
        writer.writerow(["Parameter", "Parameter Value", "Data Value"])
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        color_name_count_list=[]
        color main=soup.find('li', id="COLOR NORMAL")
        color facet links=color main.find all('a',class ="facet link")
        for color facet link in color facet links:
            color name=color facet link['data-value']
            color name count=color facet link.find('span',class ="item count").text.strip('()')
            color name list.append(color name)
            color name count list.append(color name count)
            writer.writerow(["Color",color name,color name count])
14 print(color name list)
15 print(color name count list)
['Black', 'Blue', 'Brown', 'Gold', 'Gray', 'Green', 'Ivory/Cream', 'Multi', 'Orange', 'Pink', 'Purple', 'Red', 'Silver', 'Tan/B
eige', 'White', 'Yellow']
['2206', '1907', '185', '63', '904', '505', '77', '542', '192', '426', '304', '1145', '53', '199', '1370', '87']
```

Product Features - Old Navy vs Macy's









Influence of Big Data On Pricey Brands

- It would be interesting to check if brands that focus more on apparel quality and rich designs consume as much data to make their design decisions.
- We performed hypothesis testing for the percentage change in sales for such brands.
- Independent factors considered for regression:
 - (1/Annual Sales) -> To account for size of the company
 - Classy/Trendy (Categorical variable) -> To incorporate the type of designs
 - Big Data (0/1) -> Prevalent usage of data for product design by the company today (Yes/No)

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.20	0.12	1.76	0.09	-0.03	0.44	-0.03	0.44
Trendy_Classic	-0.04	0.07	-0.57	0.57	-0.17	0.10	-0.17	0.10
Big data	-0.07	0.12	-0.63	0.53	-0.31	0.16	-0.31	0.16
1/Sales	-582.80	391.20	-1.49	0.14	-1374.07	208.47	-1374.07	208.47

Conclusion

Old Navy

- Relies on fast fashion and current trends
- Data can inform marketing and pricing strategies effectively
- Big data approach is better served

GAP

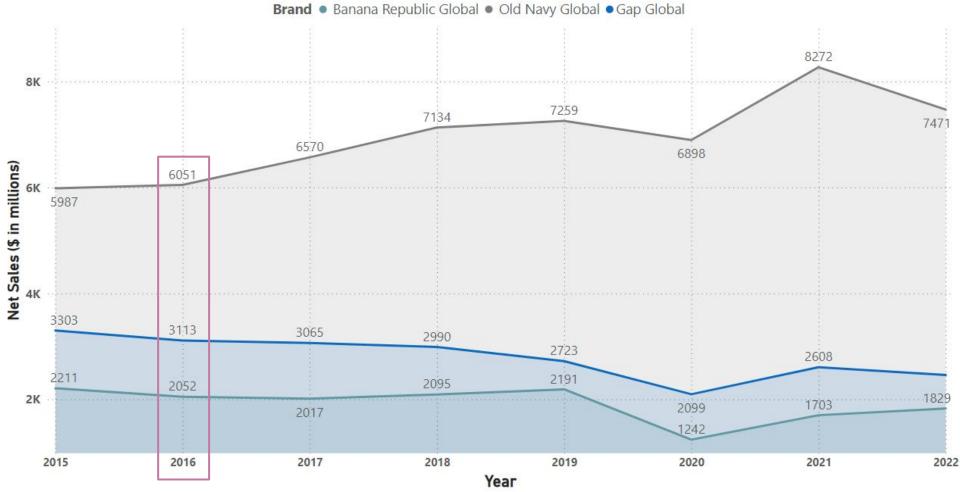
- Offers a mix of basics and fashion-forward items
- Data can be useful for basics, it may struggle to drive innovation for fashion-forward items
- Effectiveness of big data approach is moderate

Banana Republic

- Known for its quality and classy designs
- Data-driven approaches may hinder its ability to create unique and innovative fashion
- Big data is less suited



Net Sales Trends (US)





Recommendations:

Recommendations:

- To cater to GenZ crowd, GAP and Old Navy should leverage influencer marketing like Zara and Shein do in the form of "try on hauls". These are extremely popular on social media and has 2 sided advantages: Reduced marketing cost and higher conversion rate.
- Focus more on timing of digital marketing like advertise more when prices of competitors go up, to take advantage of price sensitive crowd.

Limitations

Data Scraping Challenges: web scraping may face occasional challenges as the websites change their underlying structure.

Our analysis is based on ratings form sites, so we have considered their underlying rating algorithm to be fair and non tampered.







Questions?