MGMT 590 Web Data Analytics
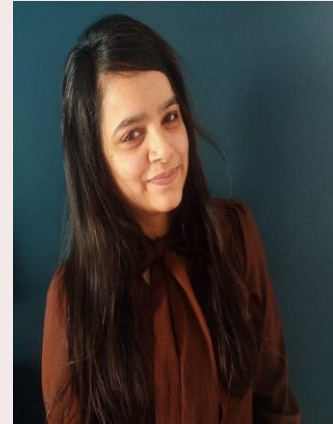
GAP Case Study

Group 7

Meet the Team

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Introduction

- The case study delves into Gap Inc., specifically focusing on the challenges faced by the company in January 2017 under the leadership of its CEO, Art Peck

- He introduced data-driven decision making measures to turnaround two years of declining sales

- The study is on the analysis of the approach. We are focusing on three brands of GAP Inc. namely Gap, Banana Republic and Old Navy

Data Driven Creative Process at GAP Inc

Product 3.0

The case study highlights Art Peck's strategic approach to addressing Gap Inc.'s challenges as he led the company's growth, innovation, and digital initiatives.

Data-Driven Decision Making

- analysis of customer purchase data
- more personalized shopping experience
- voice of the customer initiatives
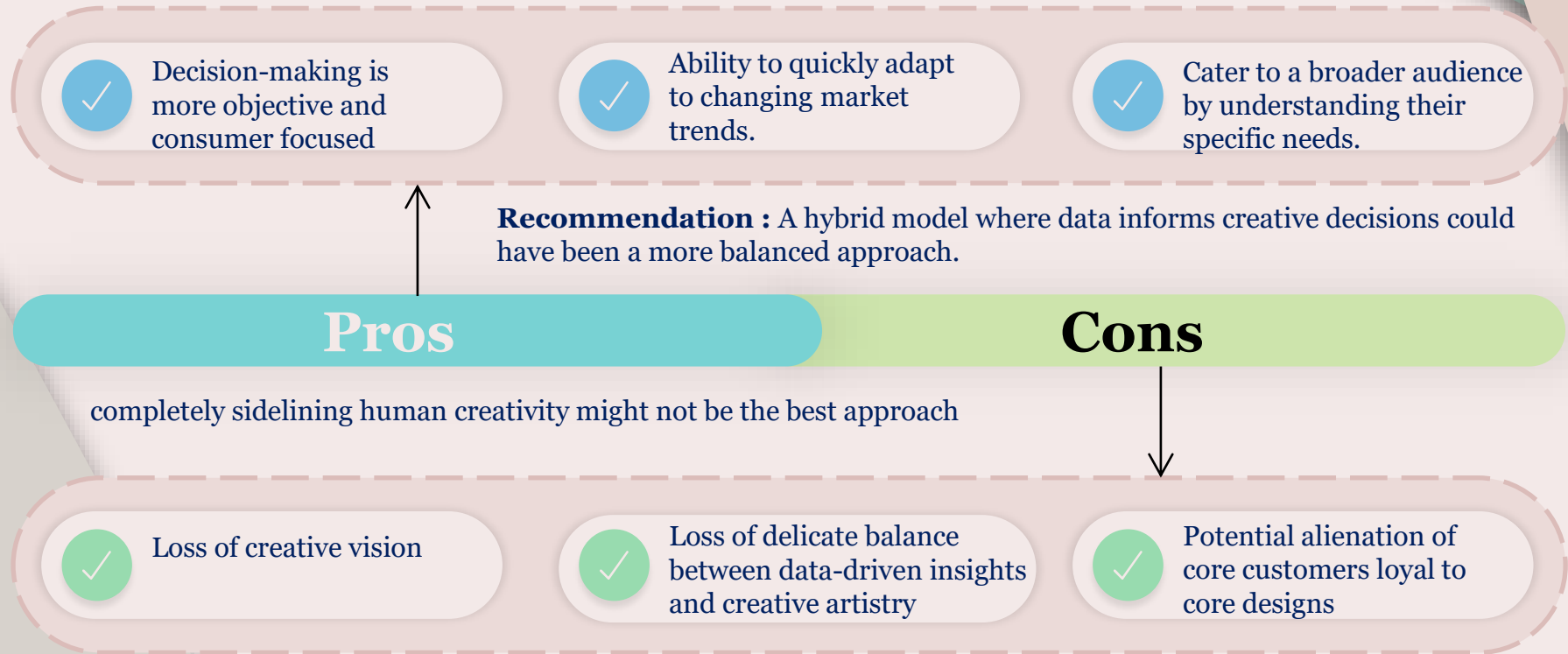- Email Personalization and Geosniffing
- testing of product

Firing of Creative Director

- each brand's vision statement served as a filter
- consistent with the brand's image instead of creative director specific

Operations optimization

- shifted some manufacturing from Asia to the Caribbean
- large quantities of fabric and holding
- Cutting the development cycle down
- emphasized Gap's digital and mobile e-commerce platforms
- closing of stores.

Was firing Creative Directors a sound decision?

✓ Decision-making is more objective and consumer focused

✓ Ability to quickly adapt to changing market trends.

✓ Cater to a broader audience by understanding their specific needs.

Recommendation : A hybrid model where data informs creative decisions could have been a more balanced approach.

Pros

Cons

completely sidelining human creativity might not be the best approach

✓ Loss of creative vision

✓ Loss of delicate balance between data-driven insights and creative artistry

✓ Potential alienation of core customers loyal to core designs

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Analysis Approach

Data Sources

Company Websites

Consumer Behaviour Data

Customer Reviews and Feedback

Competitor Data

Social Media

Analysis Techniques

- Text Analysis
- Time Series Analysis
- Sentiment Analysis
- Opinion Mining
- Key Word Analysis
- Regression Modelling

Insights

- Business Process Insights
- Product Insights

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Regression Model
Predicting Best-Seller Hoodie Rankings on Amazon

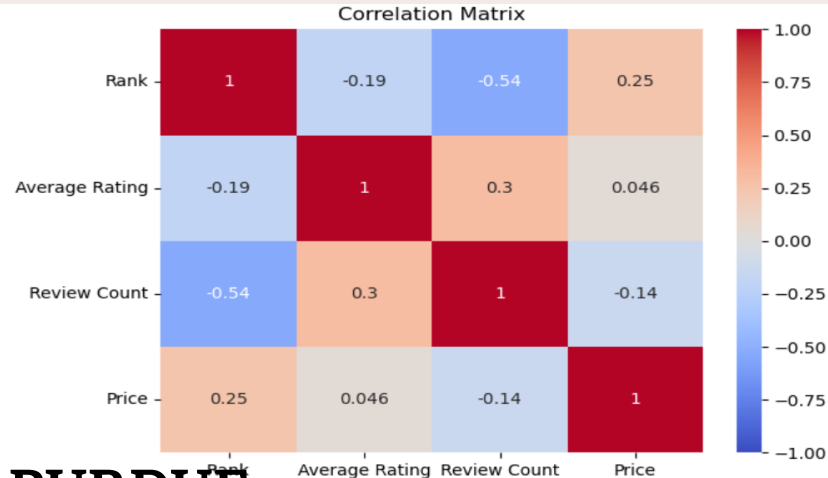Rank = β1×Average Rating + β2×Review count+ β3×Price
Our Equation : Rank = 10.9328 Average Rating - .0017 Review Count + 0.3059 Price

The R-squared value is 0.829. This suggests that approximately 82.9% of the variation in the dependent variable 'Rank' can be explained by the independent variables (Average Rating, Review Count, and Price).

| 1 unit increase in the average rating, leads to rank increase by 10.9 units | 1 unit increase in the review count, leads to rank decreases by 0.0017 | 1 unit increase in the price, leads to rank increase by 0.30 units |

Correlation Matrix

	Rank	Average Rating	Review Count	Price
Rank	1	-0.19	-0.54	0.25
Average Rating	-0.19	1	0.3	0.046
Review Count	-0.54	0.3	1	-0.14
Price	0.25	0.046	-0.14	1

OLS Regression Results

Dep. Variable:	Rank	R-squared (uncentered):	0.829
Model:	OLS	Adj. R-squared (uncentered):	0.824
Method:	Least Squares	F-statistic:	157.1
Date:	Tue, 03 Oct 2023	Prob (F-statistic):	4.17e-37
Time:	18:06:22	Log-Likelihood:	-459.83
No. Observations:	100	AIC:	925.7
Df Residuals:	97	BIC:	933.5
Df Model:	3		
Covariance Type:	nonrobust		

	coef	std err	t	P>|t|	[0.025	0.975]
Average Rating	10.9328	1.325	8.253	0.000	8.304	13.562
Review Count	-0.0017	0.000	-6.196	0.000	-0.002	-0.001
Price	0.3059	0.145	2.114	0.037	0.019	0.593

Customer Feedback Analysis: Trustpilot Reviews for Gap, Old Navy, and Banana Republic

| Review Date	Reviewer	Review Rating	Review Title	Review Text	Brand
6/9/2021	Zinat Abouelnour	1	Very bad service	Very bad service, and very slow shippingI made an o	OldNavy
11/3/2020	Zere Jane	1	WORST CUSTOMER SERVICE & WORST	I purchased an e-gift card for my friend and Gap sen	GAP
4/27/2020	zenith ray	1	They have the worst customer serviceâ	They have the worst customer service ever. You can	OldNavy
11/3/2022	Zee Yakan	1	bad customer service	bad customer service , they are located in india , poo	GAP
4/28/2020	Zaniyah Gordon	2	They have amazing clothes to buy inâ€	They have amazing clothes to buy in person but NOT	OldNavy
10/13/2022	Zachary Abel	1	Shady practice	Bought 2 pairs of pants for 40% off. Only reason I bo	OldNavy
7/25/2021	Yunique Simpson-D	2	Shipping practices suck	Used to be known for high quality fashion. Ordered	GAP
1/11/2019	YING LI	1	Waiting for refund	Waiting for refund Iâ€™m so agree with the reviews	GAP
12/10/2022	Ybq Artist	1	As a person who doesnâ€™t like fancyâ	As a person who doesnâ€™t like fancy store this one	BananaRepublic
5/16/2020	Yaroslav Vladimirov	1	The chat agents are all busy	The chat agents are all busy, and it takes forever to g	GAP
12/5/2020	Y Fooden	1	Gap online orders and customer servic	Gap online orders and customer service is the worst	GAP
12/7/2022	Xiaoyin Li	1	Not received my package and not reser	Gap sent me an email said that my order was delive	GAP
5/20/2014	Wurls	1	Terrible customer service	I ordered 4 items. 2 items were sent in the wrong siz	GAP
1/13/2020	Willie	4	Will buy again!	Everything went ok, product quality, times of deliver	GAP
3/3/2020	WilliamG	4	Winter jacket	I have been buying clothes from Gap since 2007 and	GAP
7/21/2022	William K.	4	I've always loved this store & theirâ€¦	I've always loved this store & their products. They ha	GAP
7/18/2023	William	1	No way to change order after completi	Ordered and mistakenly pressed complete order an	OldNavy
8/2/2020	Whittic	1	If only I can put no stars	If only I can put no stars. Ordered 2 shirts a month a	OldNavy

Insights

Gap customers frequently commend the quality and overall shopping experience in positive reviews, while negative feedback predominantly points to concerns with order processing and customer service.

Old Navy order-related issues and customer service are frequent topics in both positive and negative rev.

Banana Republic the online shopping experience and specific products are praised, while customer service and order issues appear in negative feedback.

# CSAT Competitor Trend Analysis from Sitejabbar Reviews
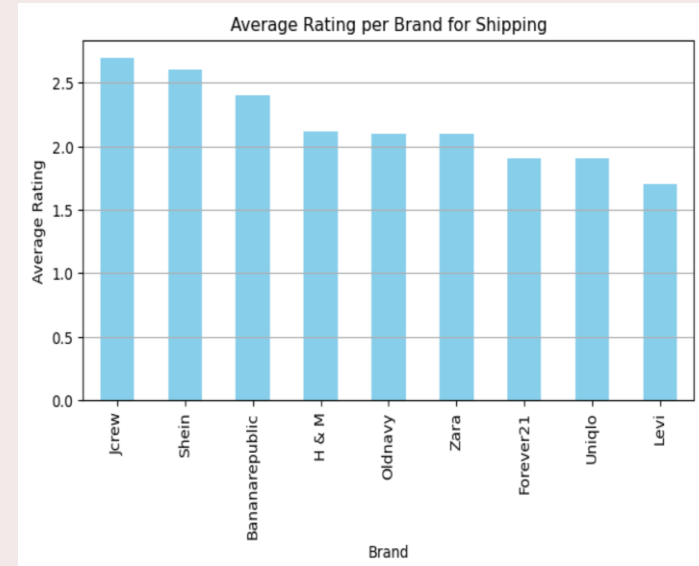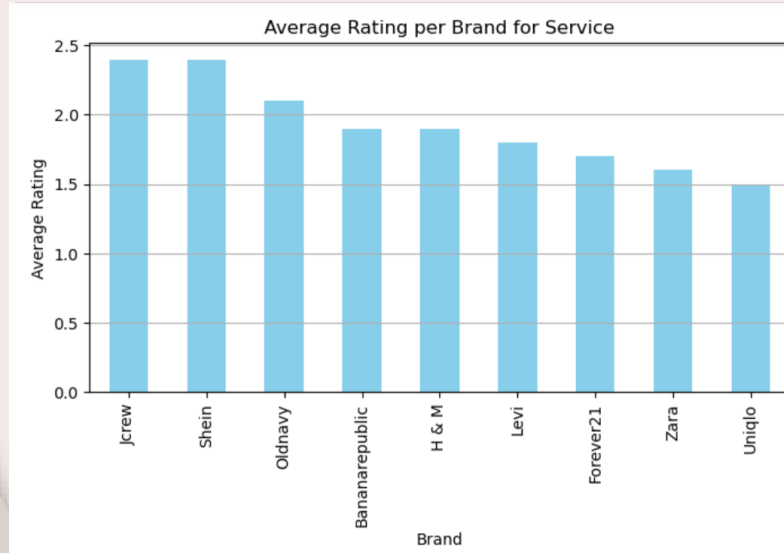
Old Navy and Banana Republic are trailing J.Crew and Shein in performance metrics like shipping and service, to remain competitive, they should benchmark against these leaders, leveraging insights from customer feedback and service features. This will optimize their offerings and potentially boost ratings, leading to improved customer ratings and brand loyalty

Key Insights - GAP Reviews Analysis

Analyzing the conversations and reviews from the GAP website can speak volumes in terms of what is working for the brand and customer pain-points. **This approach can be replicated for Banana Republic and Old Navy websites also similarly to uncover similar insights**

1

2

3

4
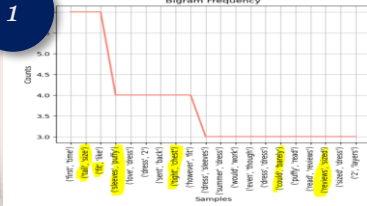
Keyword Analysis

The most mentioned keywords relevant to poor reviews are – size, sleeves, tall, short indicating sizing improvements and design constraints
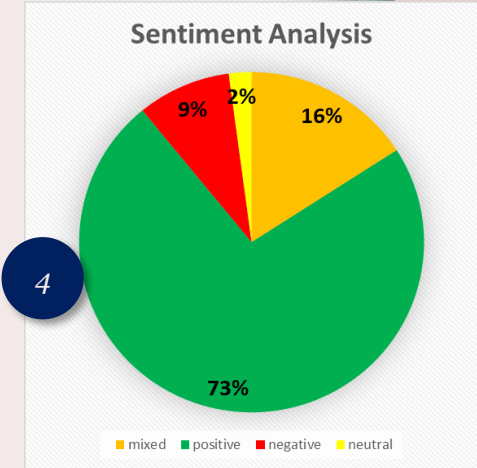
Text & Opinion Mining Positive Feedback

Gap customers most like the Fit, Comfort of the fabric, dresses the most from the WordCloud

Text & Opinion Mining Negative Feedback

Analyzing WordCloud of negative feedback indicated following improvement areas
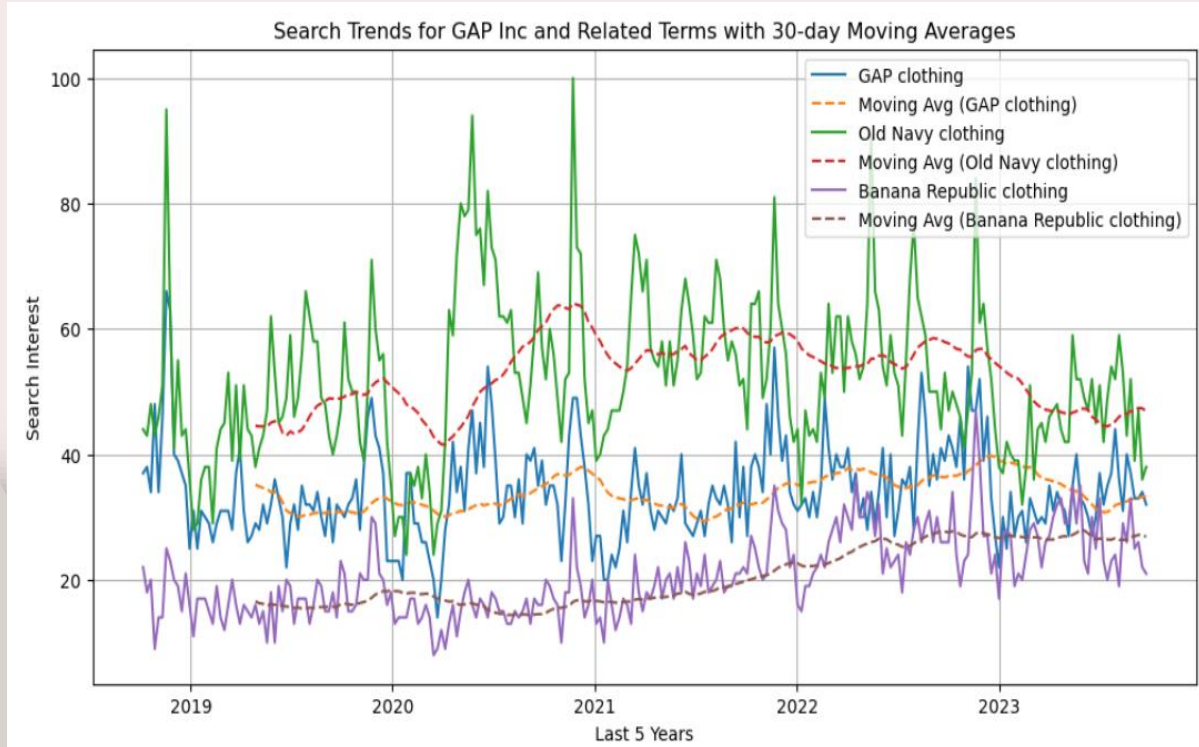- Sizing issues
- Length of dresses
- Fit(Puffy sleeves)

GAP Product Sentiment

Sentiment analysis showed that about 80% positive review from product reviews on GAP bestsellers

Google Trends Searches

Search Trends for GAP Inc and Related Terms with 30-day Moving Averages

Old Navy
The moving avg of search trend seems to decrease over time
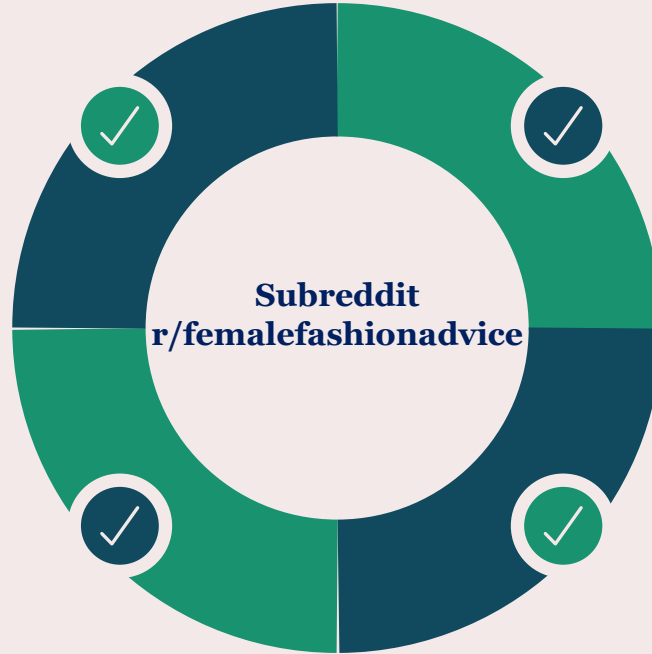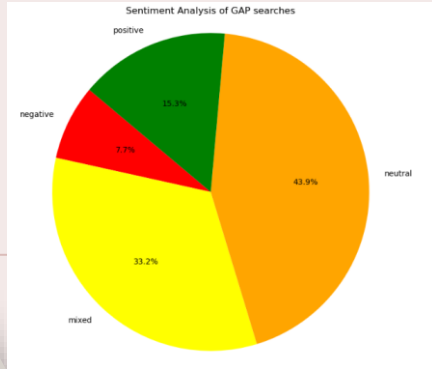
GAP
Gap interest seems to be constant. Seems to decline in the recent past
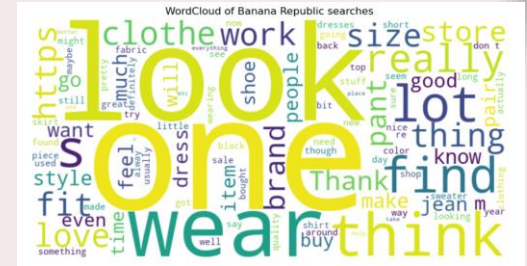
Banana Republic
Banana Republic trends seems to increase since the past 5 years

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11

Reddit Sentiment and Text Analysis

GAP

Sentiment Analysis of GAP searches

- positive 15.3%
- negative 7.7%
- neutral 43.9%
- mixed 33.2%

Banana Republic

WordCloud of Banana Republic searches

Old Navy

Sentiment Distribution of Old Navy searches

- neutral 33.0%
- negative 7.7%
- positive 18.0%
- mixed 41.2%

Subreddit
r/femalefashionadvice

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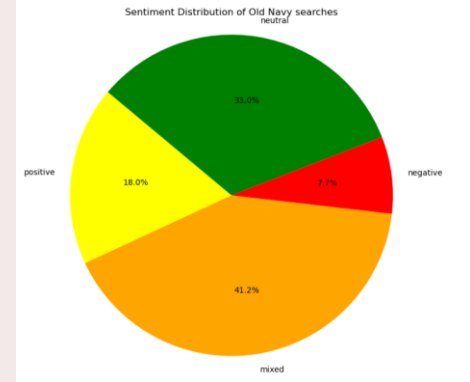
The brands of interest

	Banana Republic	Gap	Old Navy
Creation/Acquisition	Gap Inc. acquired Banana Republic in 1983	Gap Inc. was founded in 1969	Gap Inc. launched Old Navy in 1994
Target Audience	upscale, sophisticated fashion	Mid-range spending capacity audience (mass-specialty segment)	broad range of consumers, including families
Price	higher price/quality tier brand	accessible prices	budget-friendly prices
Luxury and Craftsmanship	luxurious materials and detailed craftsmanship, which justified its higher price points.	classic, clean, and comfortable basics; simplicity	No luxury element Fast fashion Discount segment

Brand differentiation within Gap Inc.

Exhibit 12   Gap Inc.'s Comparable Store Sales Growth

Women's Jeans
Gap $59.95 - $89.95
Old Navy $29.94 - $49.94
Banana Republic $98 - $198

Men's Dress Shirt
Gap $49.95 - $79.95
Old Navy $29.94 - $36.94
Banana Republic $79.50 - $125
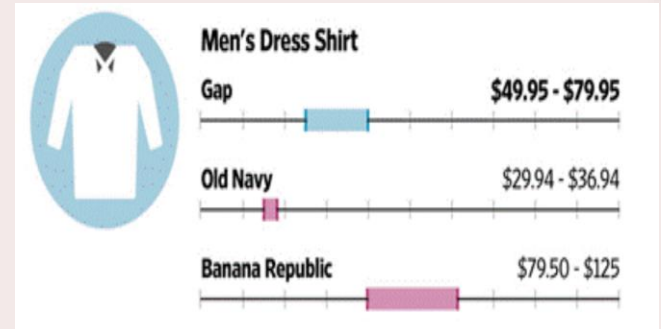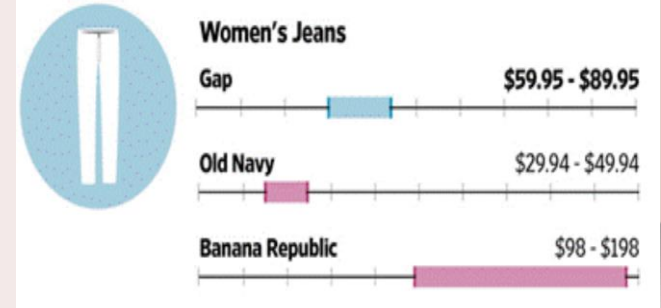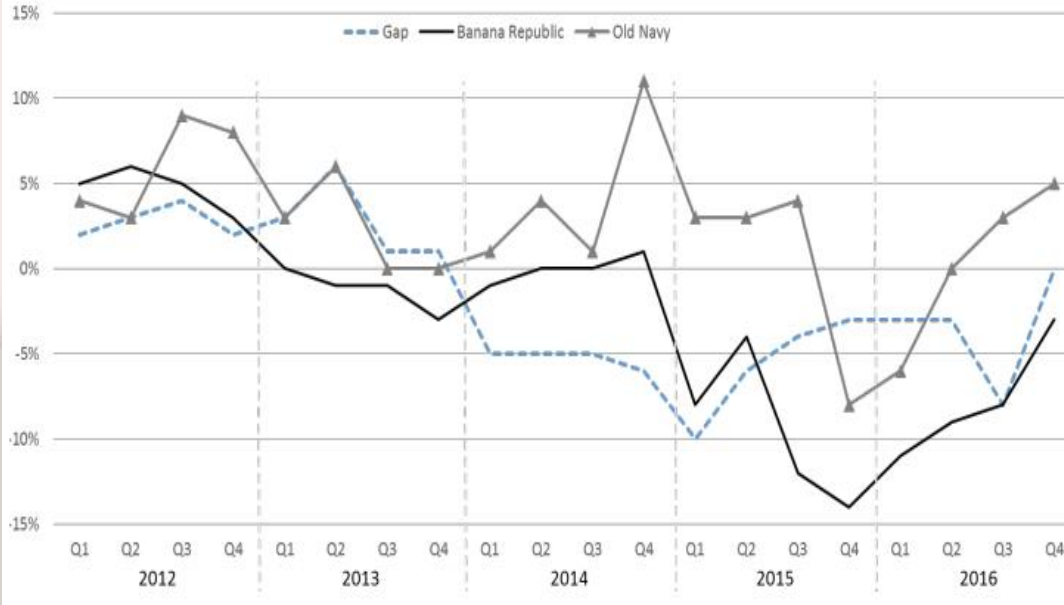
Does the big data approach work for all 3?

Each brand under Gap Inc. has its unique identity, target audience, and positioning while big data can provide insights across the board, its effectiveness might vary

Better Served: Both **"Gap"** and **"Old Navy"** seem to be **better served by a big data approach**. Given their broader target audiences and varied price points, there are potentially more data points to analyze, leading to richer insights

Worse Served: ***"Banana Republic"*** might be ***slightly less served*** by this strategy due to its niche target audience. However, this doesn't mean big data isn't useful for them. Instead, the approach might need to be more tailored, focusing on detailed segmentation and deeper insights into the upscale and professional demographics' preferences

Conclusion: While all three brands can benefit from a big data approach, the application and focus might differ based on their target audience, price range, and style. The broader the audience and product range, the more diverse data there will be, making big data approaches even more valuable. However, even for niche markets, big data can provide deep insights into specific segments, making it a valuable tool for all three brands
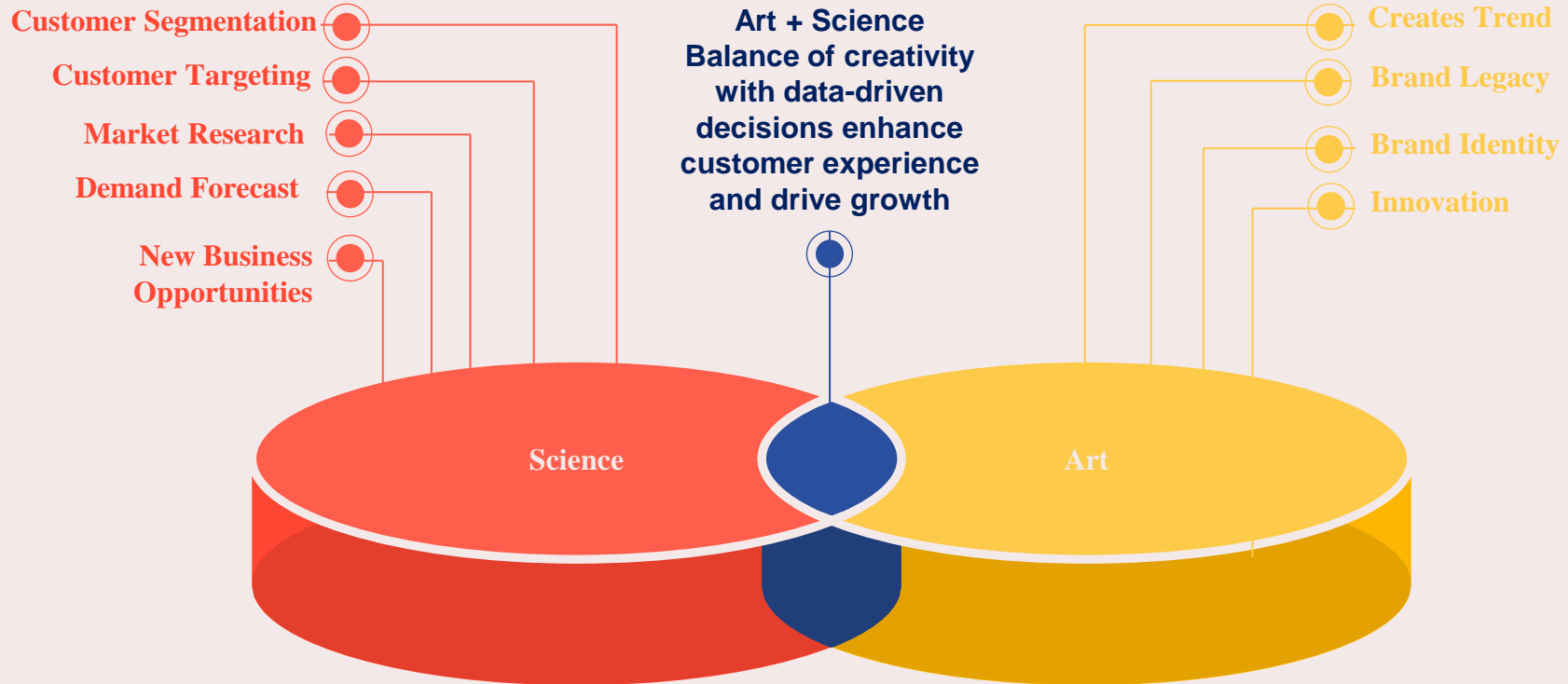
Marketing Strategies

Affordable fashion

Use pricing strategy using competitors' data and customers' expectations

Fostering creativity

Assist fashion designers and artists towards innovation to create trend

SWOT analysis

Identify strength

↓

Work on weaknesses

↓

Seize opportunities

↓

Eliminate threats

Improved User Interface

Identify pain points by tracking customer journey from product viewing to checkout/drop off point

Penetrate emerging economies

Conduct effective and high-quality market research for penetrating emerging economies

Customization

Create personalized fashion pieces that connect with customers on a personal an emotional level

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Recommendations

Google Trends

- Incorporate Google Trends data analysis to gauge the company's general interest levels, enabling the strategic planning of discounting strategies during low interest periods. Furthermore, identifying high-interest periods can facilitate planning for initiatives such as new product launches.

Leverage the insights gained from analyzing negative product reviews to address existing customer issues and improve products

Monitor social media to gauge the sentiment of customers and understand the overall sentiment towards the company

From regression analysis, it is inferred GAP should address low-rated reviews to improve quality, elevate ratings, and boost sales

In addition to using data driven approach for other brands, Banana Republic should focus on deveoping innovatived designs to distinguihs itself from its competitors

Limitations

Scalability
- *We have used small datasets to arrive at our conclusions. For example, only limited websites were scraped which could have been easily extended to various other websites as well.*

Sample datasets
- *We have scraped limited data from a particular data source. For example, we did not scrape the entire Gap website which could have been done to gather more data .Optimizing our scraping techniques to gather more extensive data from these sources could enhance the accuracy and depth of our insights.*

Model optimization and complexity
- *Since our modelling techniques are nascent, there is considerable opportunity of improvement. The parameters included are not exhaustive and there is considerable scope for improvement in the models.*

Appendix

Gap Inc. segmented Net Sales ($ in millions)

Gap : Highest sales in US, then Asia

There's a decline in sales in the US and Europe over the years, while sales in Asia remain relatively stable

Old Navy : Again, the US dominates sales across all years. There's a slight growth in sales in the US from 2014 to 2016. We also notice that Old Navy does not have any presence in Europe in the data provided

Banana Republic : The US again has the highest sales, but there's a decline over the years. There's also a decline in European sales, while Asian sales remain stable

Fiscal 2016	Gap Global	Old Navy Global	Banana Republic Global
US[1]	$3,113	$6,051	$2,052
Canada	368	490	223
Europe	630	--	59
Asia	1,215	220	109
Other Regions	129	53	28
Total	5,455	6,814	2,471
Fiscal 2015			
US	$3,303	$5,987	$2,211
Canada	348	467	229
Europe	726	--	71
Asia	1,215	194	112
Other Regions	159	27	33
Total	5,751	6,675	2,656
Fiscal 2014			
US	$3,575	$5,567	$2,405
Canada	384	500	249
Europe	824	--	93
Asia	1,208	149	145
Other Regions	174	3	30
Total	6,165	6,619	2,922

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Thank you.

Questions?