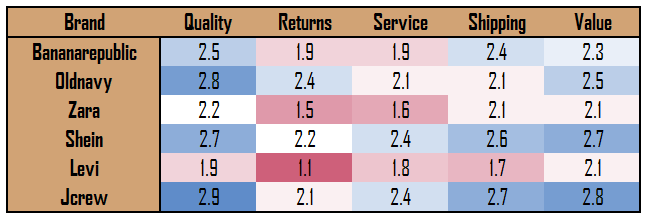
**GROUP-14 (Web Data Analytics)**

**Introduction & Business Case:**

Founded in 1969 by the Fishers, GAP Inc. revolutionized retailing. Despite of being a iconic brand, declining sales prompted CEO changes. To revive the company, the then CEO Art Peck eliminated creative directors in 2015, shifting to a data-driven creative process. This case evaluates the decision's suitability and big data's role in marketing.

**Analysis of Gap and its sister company performance post the change**

To understand the success of Pecks’ decision, we look at the customer review ratings of different apparel brands in the market at present to gauge the company standing in the industry.

On initial research, we found that Old Navy & GAP collectively cater to a relatively price sensitive but trendy consumer market, while the target audience of Banana Republic is upscale and tend to look for high quality, classic looks and are willing to pay a premium price for good quality clothes. For our analysis,

We scraped **SiteJabber** to fetch details on 5 different segments of various companies including the 2 brands of interest: Banana Republic & Old Navy.

We found that: 1. Banana Republic could focus on improving its Returns & Customer service segments to really drive customer satisfaction, as J-Crew, its direct competitor is able to provide better services in these aspects.

A table with numbers and text

Description automatically generatedWe then tried to understand the product level satisfaction of GAP. To determine this, we searched & scraped the reviews for the most popular product at **GAP and Amazon** for comparison which was Cotton Men’s shirt.

For this analysis, we only considered product ratings 4 and above to find how Gap performed against industry standards (assuming amazon as benchmark).

**Hypothesis Testing:**

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Description automatically generated (Performance is solely based on customer satisfaction & ratings)

Since Z-statistics is much greater than the critical value, we fail to reject that Gap is not performing better than Amazon. Therefore, one could assert that we need to look deeper into product specifications to further understand product performance.

To understand what features constitutes a successful product, we then investigated into factors which could give more tangible action points that could lead to successful sales. We found that **Macy’s** is one of the most successful shopping sites and compared how best selling products in macy’s have in common with companies like old navy (similar to GAP).

For this analysis, we capture the aggregate level data of the products by features (Neckline | Fabric | Sleeve Length | Color | Occasion | Price Range) then we compared it against the inventory of Old Navy with similar features.

With the big data approach, we could possibly determine factors that could mimic successful brand thereby boosting sales, which could be a good model for fashion-forward, fast fashion brands like Gap & Old Navy. But to determine if the same works for high-end fashion brand like Banana Republic, we changed our approach.

Analysis until now revolved around brands which are in the thrifty range, in this section a different dynamic of expensive brands were explored. 7 luxury companies sales data were collected. We performed hypothesis testing for percentage change in sales year-wise for such brands. Independent variables considered are the 1/sales (to capture the size of the company), classy/trendy (0/1),, and Big Data (0/1) the categorical variables.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | *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 |

It is seen that Big data variable p-value is greater than 0.05 (considering 95% significance), hence it is not possible to conclude big data is related to % change in sales.). Hence we cannot conclude that Big data is affecting sales for luxury brands

Art in product design is crucial for creating unique selling points and brand identity. Big data is valuable for optimizing marketing strategies, but it may not excel in driving innovation as it relies heavily on historical data and consumer feedback.

Peck firing creative heads of all the 3 brands is wrong. There isn’t a one size fits all solution to this case. We have observed in our analysis that luxury brands don't actually depend on big data to a great extent, while thrifty and fast-fashioned brands can actually benefit from ever changing customer dynamics. A mix of the both the worlds is needed to generate the USP of a brand to tell it apart from the competitors. Instead of replacing one another, they should counter-balance each.