

# Customer Lifetime Value



Samantha Ho

# Executive Summary

## **Motivation:**

*Coach* recently acquired a down-market brand and hopes to better understand how these customers' lifetime values compare with their up-market customers and how to optimize their offerings to target the down-market customers.



# Executive Summary

## Problems Solved:

- Lack of data for up-market customers: had to make assumptions about their customer lifetime value distribution (greater variability, narrower distribution)
- Assumption for the customer base segmentation: when I sampled the customers for the leading top and middle products, I characterized the overall behavior of these respective customer bases


# Executive Summary

## **Findings and Recommendations:**

1. DMCs have a lower average CLV than UMCs
2. Highest popularity products tend to be purchased by customers with lower CLVs compared to middle popularity products
3. Focusing on maximizing the high CLV customers in the middle popular products
4. Promote more niche items that loyal customers are buying (middle products with high CLV)

# Business Questions

I am interested in analyzing:

1. The distribution over lifetime values for down-market customers, and how they compare in the aggregate to the lifetime value of their up-market customers.
  2. The offerings we could produce and market for down-market customers and what constraints we might face when developing new offerings.
  3. How to segment these down-market customers to optimize our messaging.
- 
- A decorative background graphic at the bottom of the slide. It features a white line chart with circular markers at various points, showing an overall upward trend with some fluctuations. Below the line chart is a series of vertical bars of varying heights, creating a bar chart effect. The entire graphic is rendered in a light gray or white color against the dark blue background.

# Business Questions: Expectations

The acquisition of a down-market brand provides *Coach* with a strategic opportunity to optimize their offerings and marketing to down-market customers based on estimates of customer lifetime value. Provides us with opportunities to:

- Potentially grow our customer base and brand loyalty through new offerings and customer segmentation.
- Form strategies to promote down-market customers to up-market customers.
- Better understand how customer lifetime value estimations can be used to predict marketing campaigns

# Business Questions: Hypotheses

1. I hypothesize that down-market customers have lower CLVs and a wider distribution of CLVs than up-market customers (less brand loyalty and brand recognition)
2. I predict that the top 4 highest selling products will reflect a higher CLV customer base for these products (association between most frequently bought products and brand loyalty)
3. Additionally, I believe targeting to higher CLV customers would be the most optimal strategy (prioritize most loyal and reliable customers)

# Data and Methods

1. I used a pseudo-churn model to analyze the full dataset. This form of modelling is used by most up and coming companies since there are less assumptions required than basic arithmetic.
2. I am interested in customer satisfaction as a factor in CLV, therefore, I did not remove refunds from the data.
3. Using predicted churn, I calculated CLV for each customer over their estimated lifetime.
4. To compare down market to up market customers, I assume that up market CLVs are higher and have a more narrow distribution since they have more brand loyalty

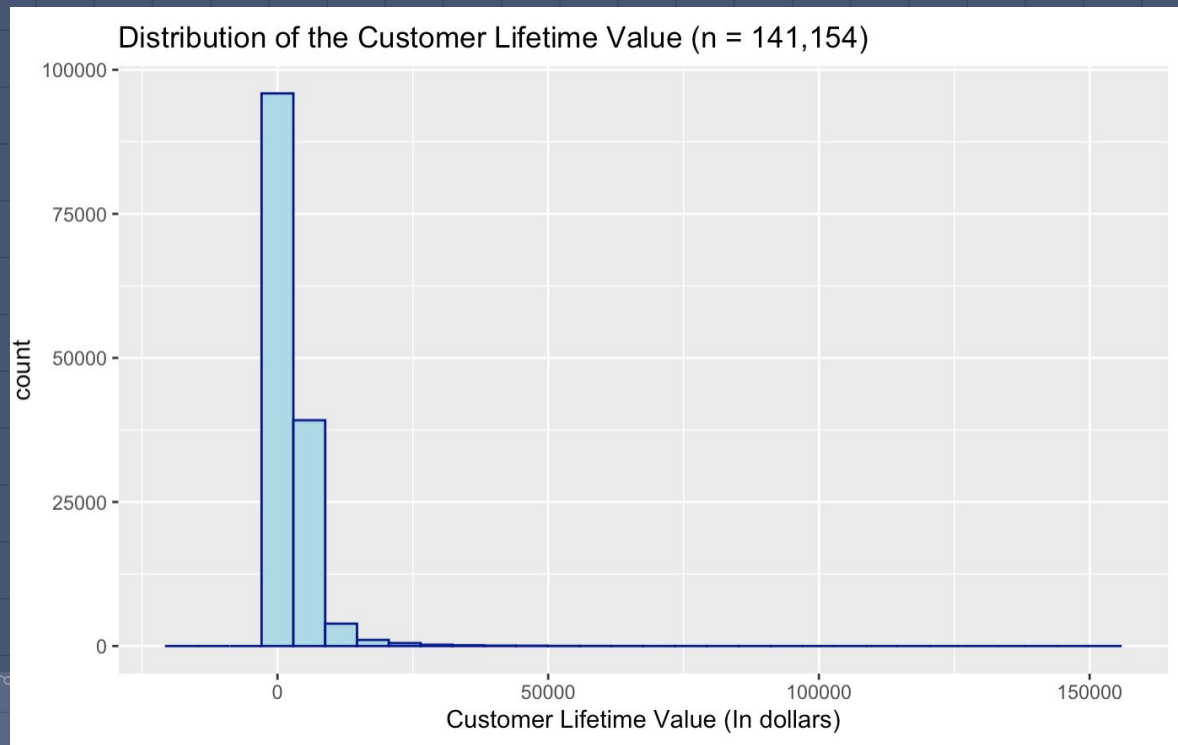


# Data and Methods

Using the calculations from the pseudo-churn model, I can examine what products are being purchased the most

1. Examine the top 20 SKUs
2. Determine top 4 selling products from SKUs
3. Compare CLV median statistic between overall and individuals who bought top 4 products and middle selling products

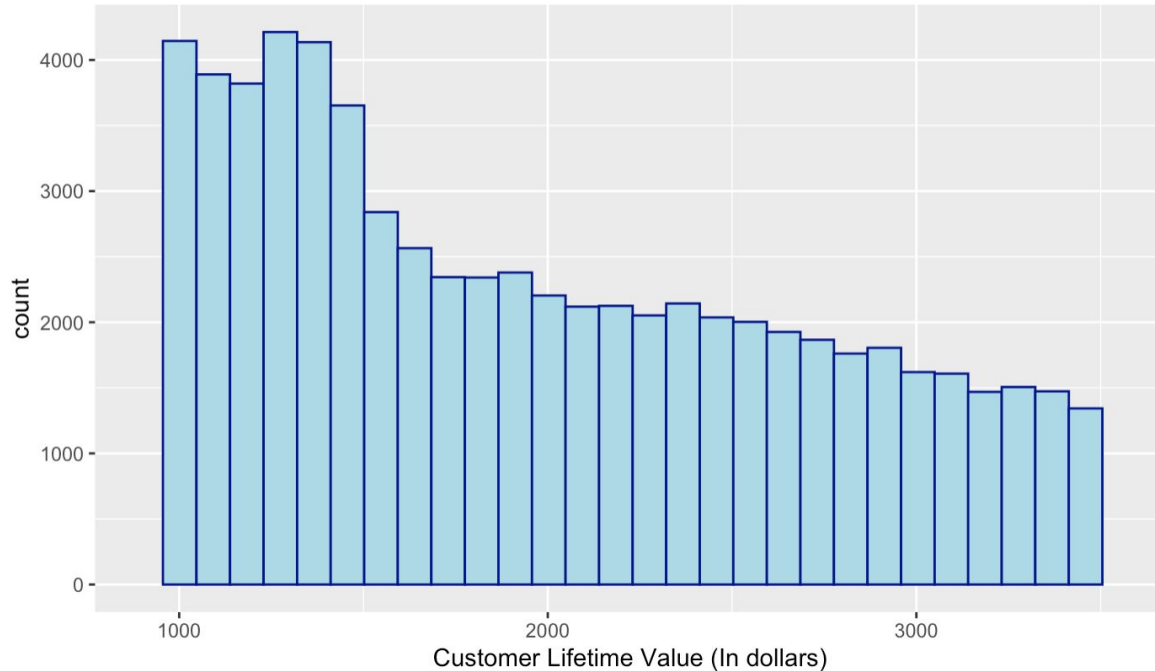
# Findings



```
clv_hat
Min.    :-16569.8
1st Qu.:  909.8
Median : 1817.5
Mean    : 2848.0
3rd Qu.: 3543.6
Max.    :154066.8
```

# Findings

Distribution of the Customer Lifetime Value, 2nd and 3rd Quartiles (n = 70,577)



clv\_hat

Min. : -16569.8

1st Qu.: 909.8

Median : 1817.5

Mean : 2848.0

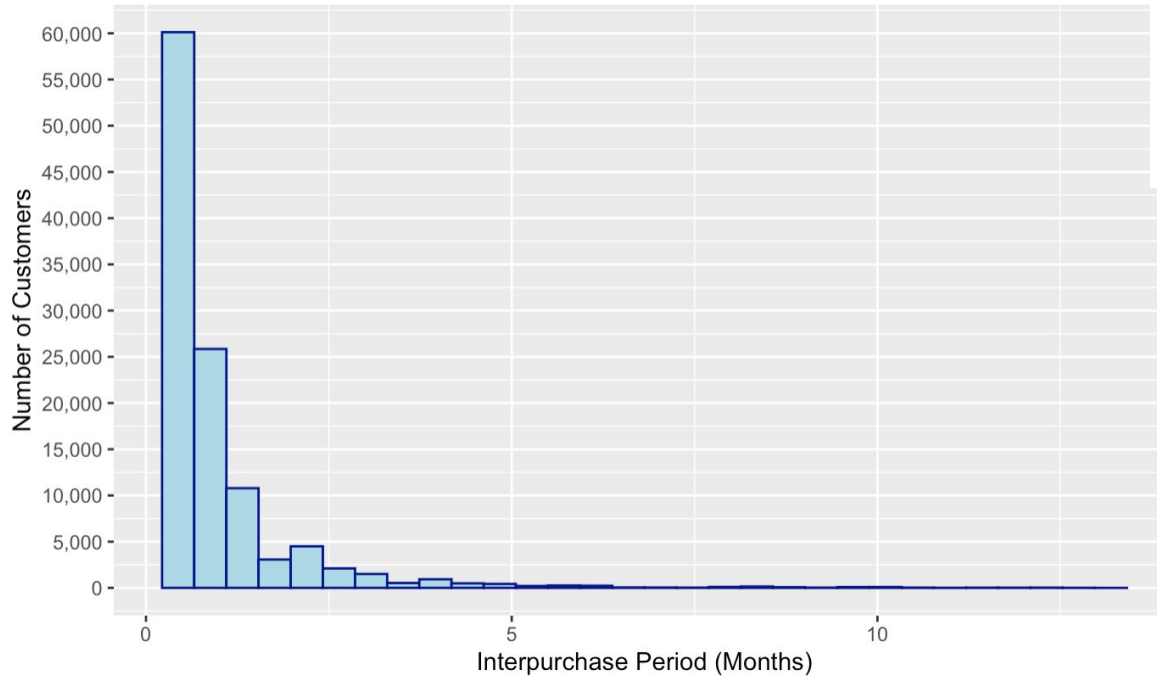
3rd Qu.: 3543.6

Max. : 154066.8

# Findings

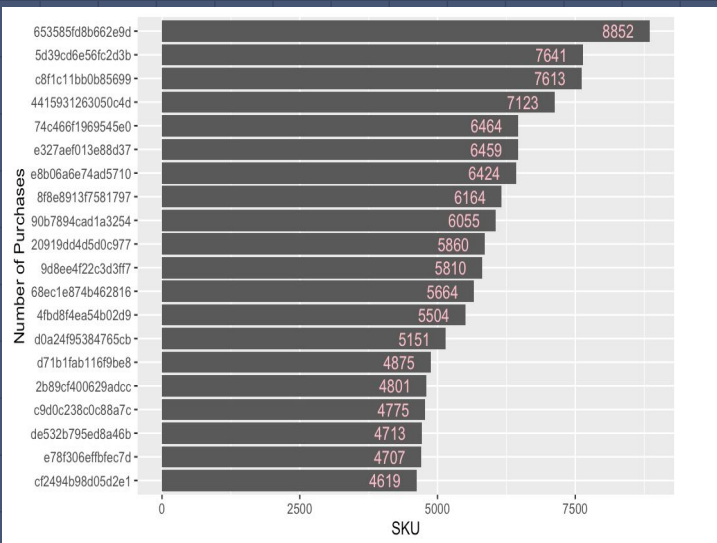
Total Observations in Table: 141154

Number of Customers in Each Interpurchase Period (n = 141,154)

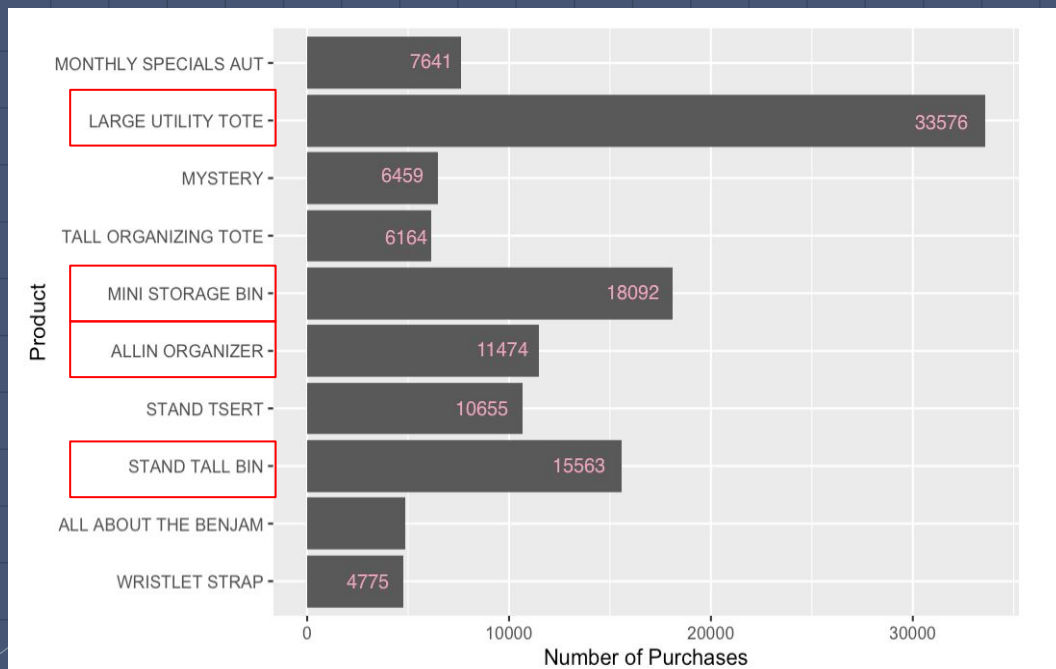


	0		1	
	-----		-----	
	108346		32808	
	0.768		0.232	
	-----		-----	

# Top 20 SKUs



# Top Products



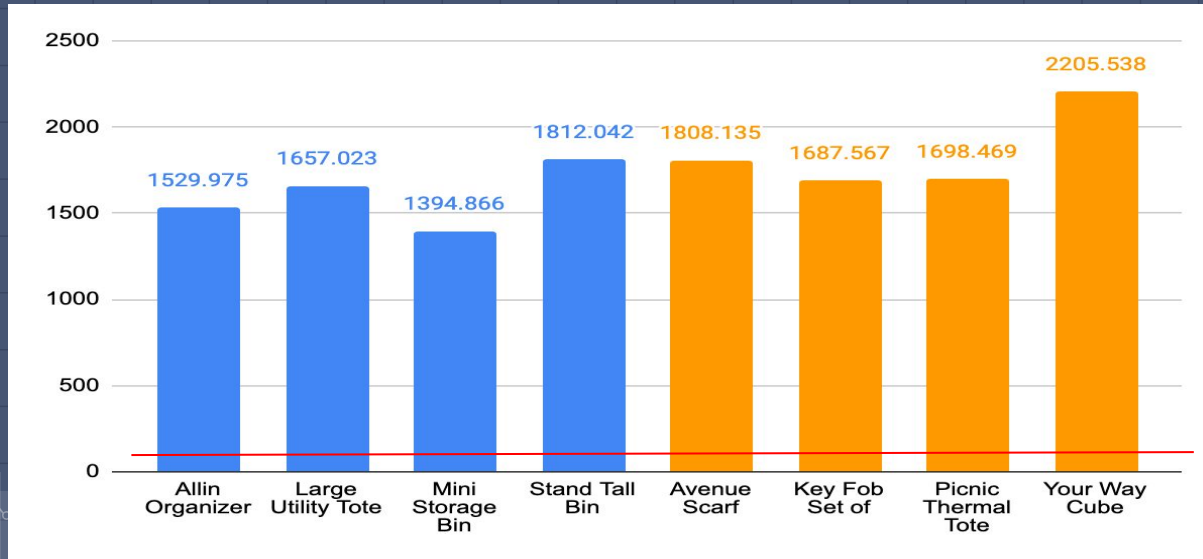
# Findings

## Top 4 Selling Products:

1. Large Utility Tote
2. Mini Storage Bin
3. Stand Tall Bin
4. Allin Organizer

## Sample Average Selling Products:

1. Key Fob Set
2. Picnic Thermal Tote
3. Avenue Scarf
4. Your Way Cube



Median: 93



# COACH

Women's Black Metropolitan Utility  
Tote



Coach NIB Coach Leather  
Boxed Key Fob Set - Ne...

# Discussion

In 2020, the average churn for retail brands is 63% (Bloom Intelligence) while average churn for luxury brands are 80-90%. (Hedda)

In my calculations, only about 23% of customers are likely to churn. In comparison to other luxury brands, down market Coach customers are more loyal to the brand. This may explain why customers have a shorter interpurchase period.

Given my up market assumptions, down market customers have a lower average CLV (high churn rate, lower \$ amount spend, fewer purchases) and a wider distribution of CLVs than up market customers.



# Discussion

**Surprising finding:** Highest 4 selling products had customers with lower CLVs than the middle selling products

Why did the middle selling products have greater customer lifetime value?

- High and low CLV both buy popular items
- More “unpopular” items are bought by more loyal customers



# Recommendations

For optimal strategy,

Segment between high and low CLV for **middle selling products**

- Promote more niche items to more loyal customers (high CLV)
- High CLV more likely to purchase

Target both high and low CLV for **best selling products**

- Promote popular items to a greater range of customers
  - More people are more likely to purchase popular products
- Could even attract new customers

# Recommendations

## Possible Offerings:

1. Generate greater sales of the popular products
  - Engage greater range of customers in more popular items:
    - Introducing new types of popular products (new function, new design, etc.)
    - Advertisement with popular products

# Recommendations

## 2. Increasing the CLV of our customer base

- Promotions with a more popular product and a middle selling product (ex/ BOGO 50%, etc.)
  - Attracts both high CLV and lower CLV customers
  - Increase CLV of customers



# Recommendations

## Constraints:

- Money loss due to unpopular varieties (ie proven products vs experimental products)
- Costs in production and marketing
- Customer reluctance in spending more money for items that they were not interested in initially (i.e. BOGO 50% off promotion)

# Impact: Results of Hypotheses

1. We need data on up-market customer behavior to make a more definitive comparison between our up-market and down-market customers. However, based off of our current data, it is likely that our down-market customers have a wider distribution and a lower average CLV.
2. Incorrect: the top 4 highest selling products reflected a lower CLV customer base for these products
3. Correct: targeting to higher CLV customers is the most optimal strategy; however, they are found in the middle product customer base, not in the top products customer base like we thought initially

# Impact

With the Customer Lifetime Value, we now have a picture of Coach's down and up market in the long-term, and how to optimize its financial viability.

Coach can increase the average CLV per customer in both up market and down market customer populations through targeted promotional strategies.

Social media campaigns will increase both acquisition and retention of customers for Coach, increasing the total revenue for the company.

- ▣ Increase cost-effectiveness of product production and marketing
- ▣ Strengthens the loyalty of the customer base
- ▣ Convert down-market customers to up-market customers

# Impact

## Resourcing Needs:

- Increased hiring of data analytics employees to periodically update the CLV model and evaluate effectiveness.
- Hire a robust marketing team that can advertise our differential promotional campaigns towards each customer population. This sale will occur on the 1st of each month.





# References

Hedda Schupak, E. (n.d.). New Study Says Luxury Brands Lose 80-90 Percent Of Customers Every Year. Retrieved from

<https://news.centurionjewelry.com/articles/detail/new-study-says-luxury-brands-lose-80-90-percent-of-20customers-every-year#>

Johnston, R. (2021, August 09). Is Your Retail Churn Rate Above Average? Retrieved from <https://bloomintelligence.com/blog/is-your-retail-churn-rate-above-average/>

Perino, M. (2019, February 26). Heres when you should be buying designer goods to get the best deals, according to a Chief Marketing Officer who works with 12,000 luxury brands. Retrieved from <https://www.businessinsider.com/best-time-to-buy-designer-fall-winter-spring-summer-sales-2019-2>

*The anatomy of a retail marketing budget in 2020*. Smartly.io - Powering Beautifully Effective Ads. (n.d.). Retrieved September 26, 2021, from <https://www.smartly.io/blog/the-anatomy-of-a-retail-marketing-budget-in-2020>.

Thank you for your attention.  
Any questions?