



# Customer Lifetime Value Analysis

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# Agenda

 **1 Business Problems**

 **2 Analytical Models & Results**

 **3 Conclusions**



# **Business Problems**

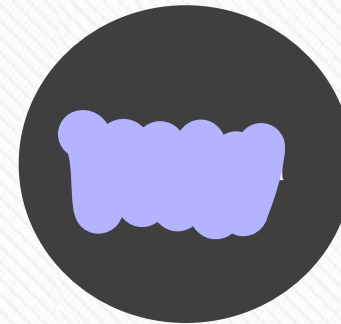
# Business Problem & Answers



## Customer Lifetime Value (CLV)



Revenue created:  
**\$64.68** /customer/year



Revenue created:  
**\$121.77** /customer/year



## Subsequent behavior after first purchase

- More customers transferred from [redacted] to Amazon than the opposite
- Only 2% of Amazon customers converted entirely or partially to [redacted]



# **Analytical Models & Results**

# Analytical Models & Results



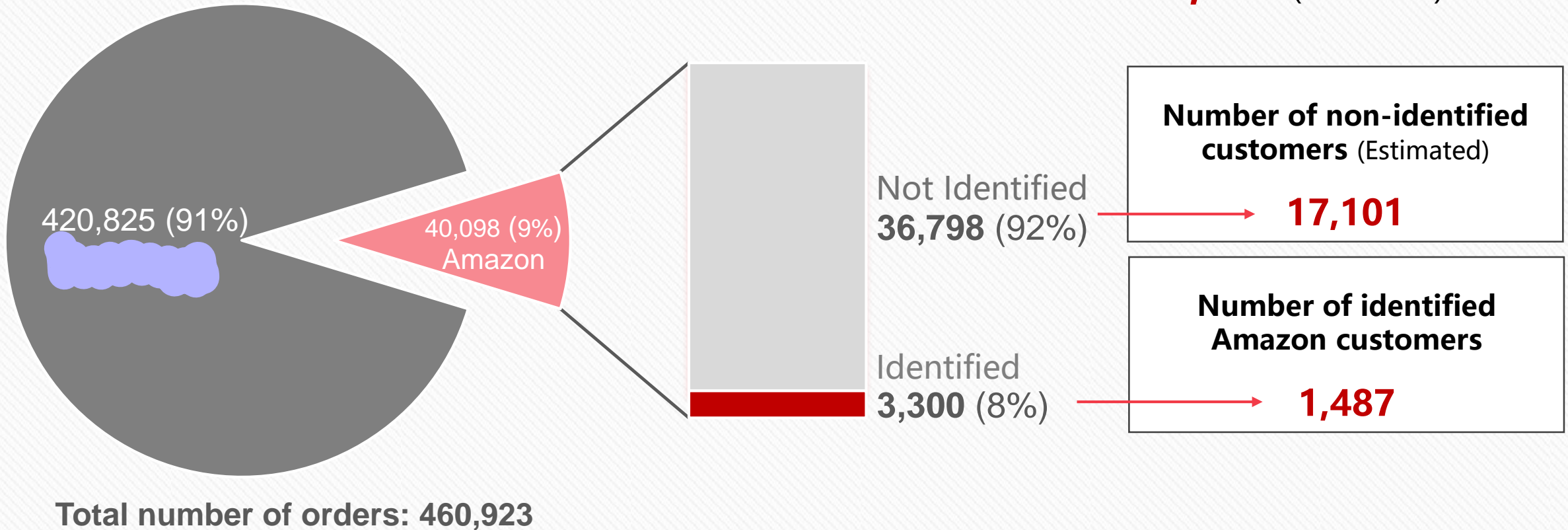
- 2.1 Transition Analysis
- 2.2 Customer Segmentation
- 2.3 Diagnostic Analysis



# **Transition Analysis**

# Amazon Orders & [REDACTED] Orders





Total number of Amazon customers: **18,588** (Estimated)





# Number of Orders

- \$16,462 ( $\$88,503 \times 18.6\%$ ) commission fee that could have been saved
- Amazon brought \$55,585 ( $\$72,047 - \$16,462$ ) net revenue

First Order Mode	Subsequent Order Mode	
	Amazon	
	 <b>1,539</b> Rev \$88,503	<b>417,399</b> Rev \$51,886,369
Amazon	<b>39,837</b> Rev \$1,766,573	<b>610</b> Rev \$72,047 

# Transition Across Modes

		Number of Customers	%
From Amazon 18,116	Back and Forth	25	0.14%
	To [redacted]	344	1.9%
	Always Amazon	17,747	97.96%
<hr/>			
		Number of Customers	%
From [redacted] 172,582	Back and Forth	313	0.2%
	To Amazon	754	0.4%
	Always [redacted]	171,515	99.4%

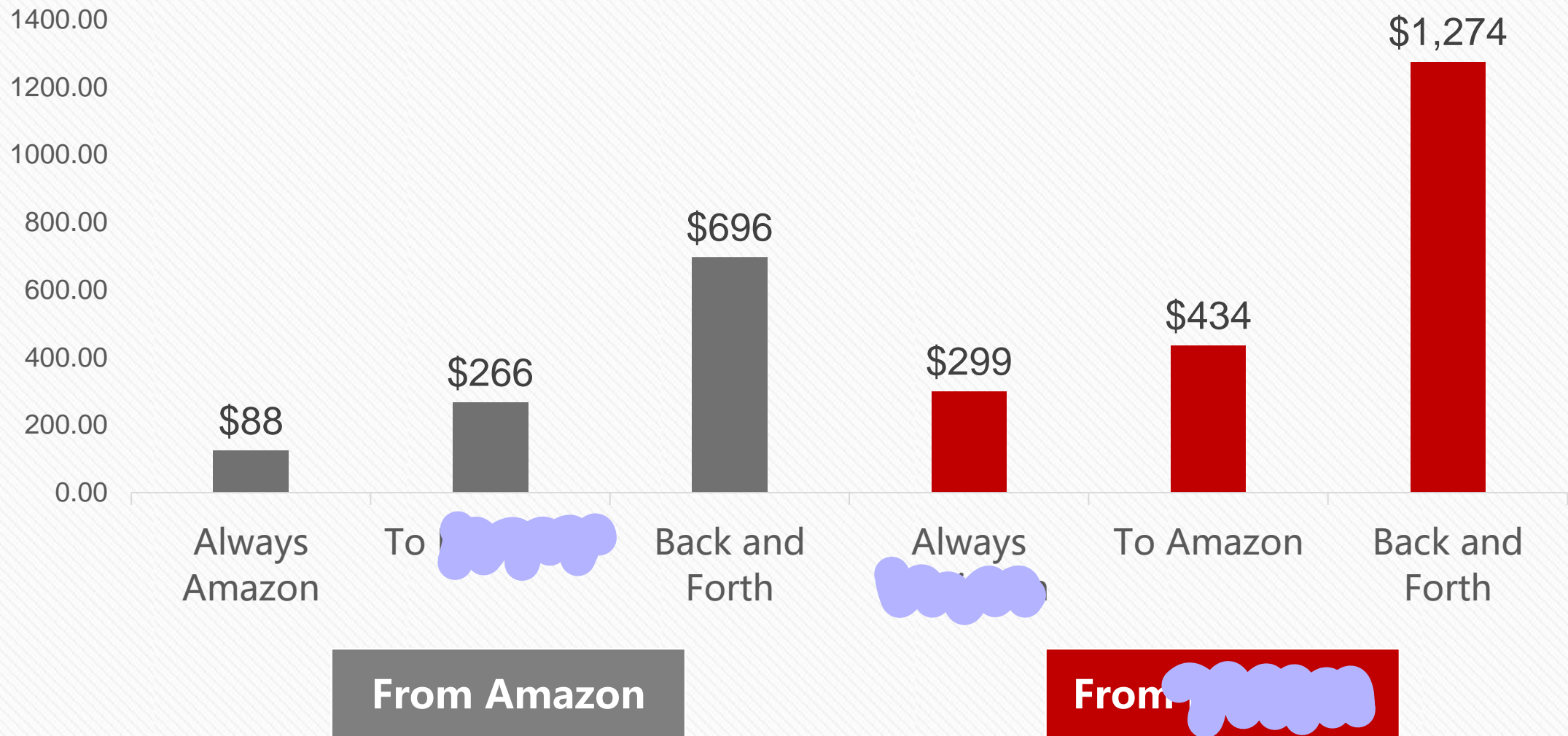
- Lost 867 customers from [redacted] while gained 369 customers from Amazon
- People generally stick with one mode

# Average Order Amounts & Number of Orders

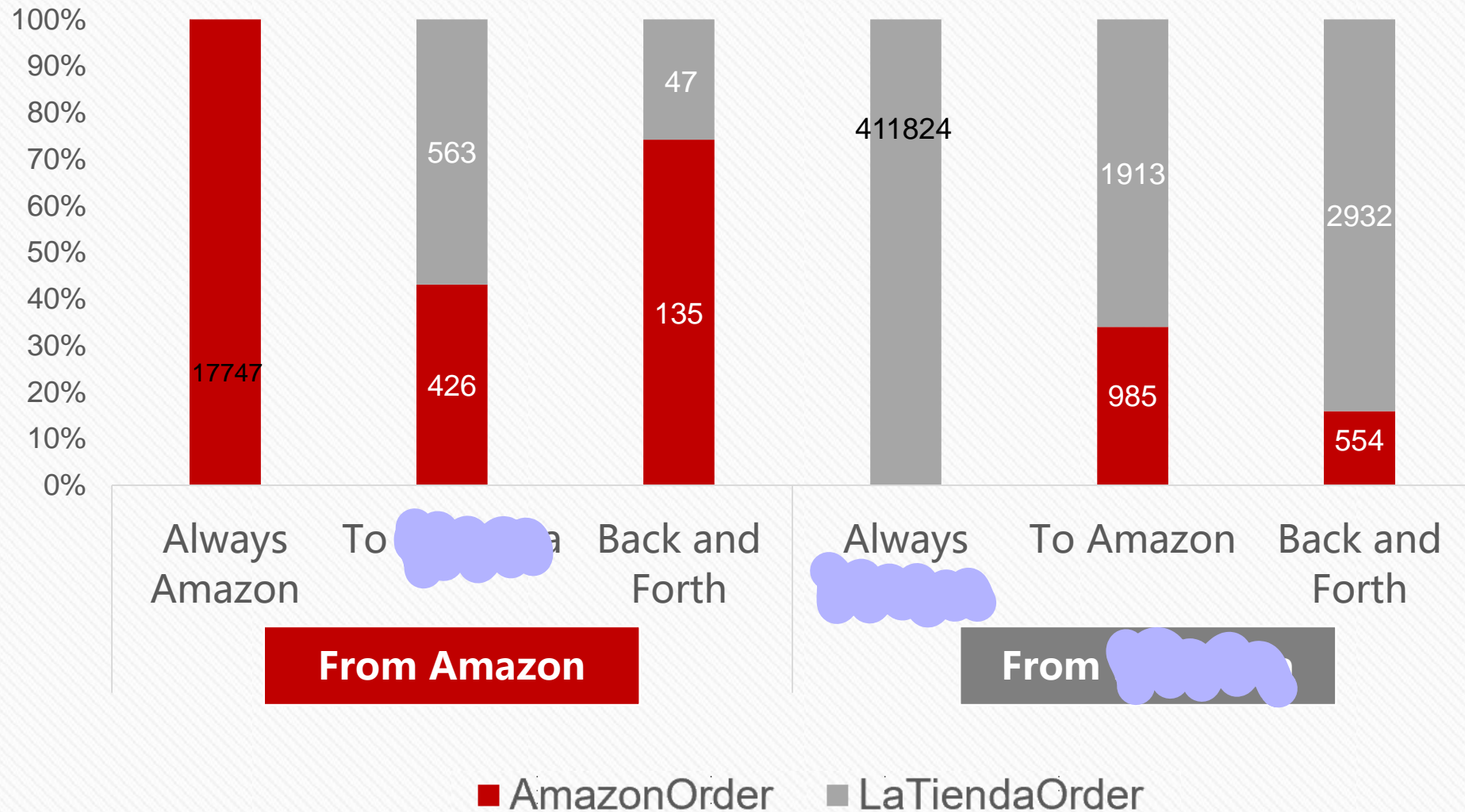


\* The data excludes internal companies and non-identified Amazon customers

# Average Revenues



# Proportion of Total Number of Orders





## **Customer Segmentation**



# Recency Frequency Monetary (RFM) Analysis

- Who are our most/least valuable customers?
- How can we retain valuable customers and reactivate other customers?

## What is RFM Analysis?

- RFM Analysis is a fundamental customer segmentation technique based on three attributes: *Recency, Frequency, Monetary*

## Benefits of RFM Analysis

- Helps companies keep track of their customers and build a relationship that can increase sales and productivity.
- Increases the efficiency of marketing spending through targeted marketing

# RFM Analysis Metrics



## Recency

How recently was the last purchase?



Time difference between the latest order date of this customer and current time



## Frequency

How many purchases have been made?



Total number of orders purchased by this customer



## Monetary

How much the customer spends?

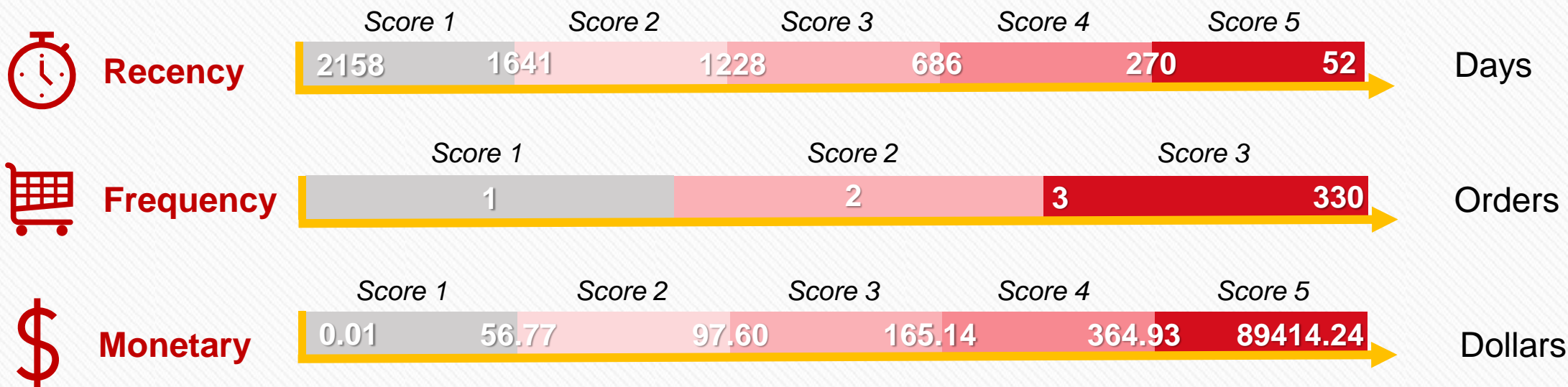


Total order amount spent by this customer



# RFM Analysis Process

- Use quantile to assign a score for Recency, Frequency, Monetary for each customer



Score 5	80%-100%
Score 4	60%-80%
Score 3	40%-60%
Score 2	20%-40%
Score 1	0-20%

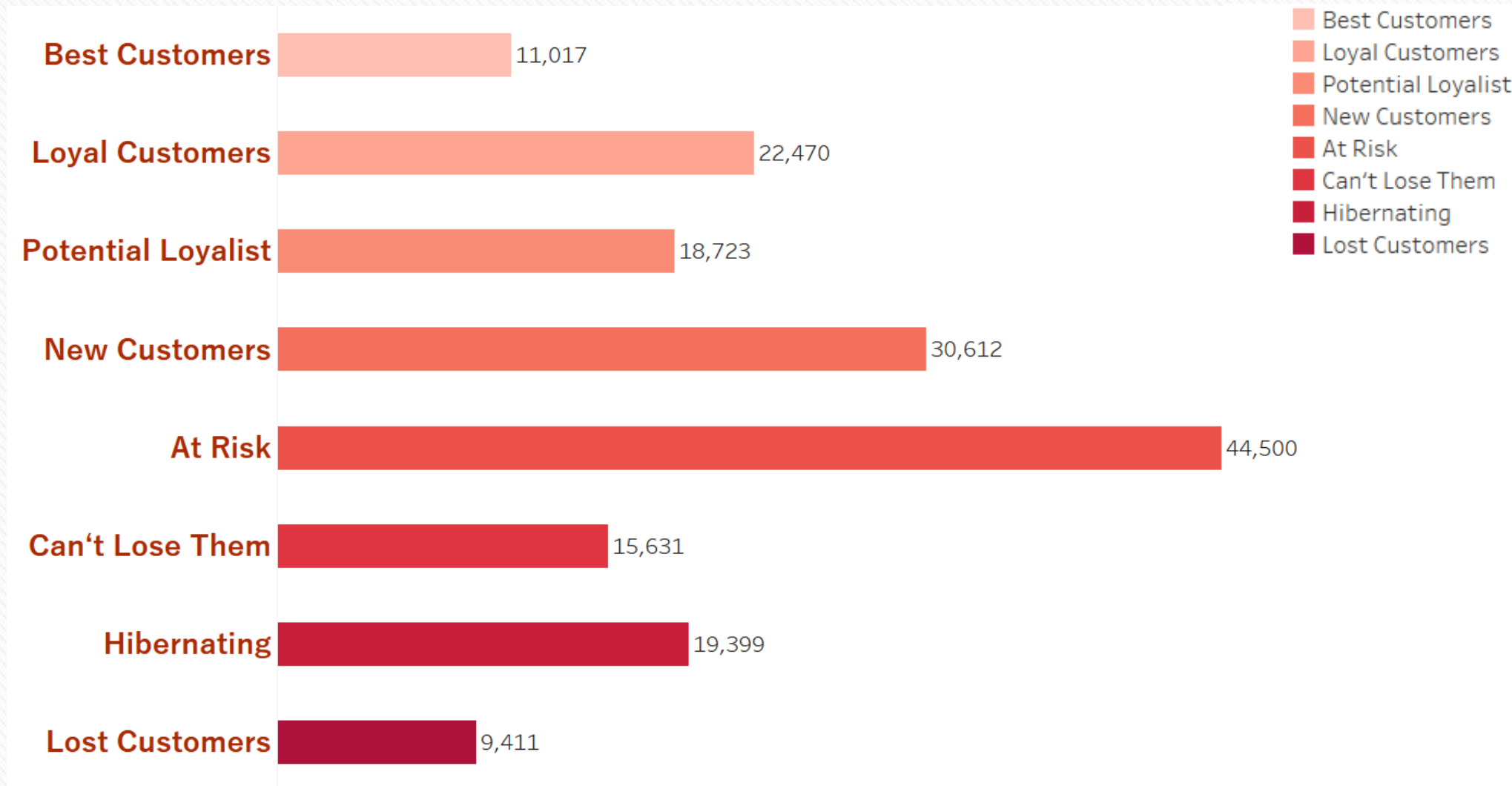
Example:

Cus_ID	Recency	Frequency	Monetary	R_Score	F_Score	M_Score	RFM
50	148	18	1080.48	5	3	5	535
23	1920	1	63.20	1	1	2	112

# Customer Segmentation Rules

		R	F	M	
	Best Customers	Customers who bought most recently, most often and spend the most	5	3	5
★	Loyal Customer	Customers who bought recently and most often	3-5	3	1-5
	Potential Loyalist	Customers who bought recently and more than once	3-5	2	1-5
	New Customers	Customers who bought more recently and purchased once	4-5	1	1-5
★	At Risk	Below average recency, frequency & monetary values	2-3	1-3	1-5
★	Can't Lose Them	Customers who made big purchases and often, but long time ago	1-2	2-3	3-5
	Hibernating	Low spenders, low frequency, purchased long time ago	1	1-3	1-5
	Lost Customers	Last purchase long ago, purchased few and spend little	1	1	1

# Customer Segmentation Distribution



- Make specific marketing plan to retain or reactivate these customers.

# Top 5 Products for Specific Customers

## Best Customers

1. Sliced Jamon Serrano by Peregrino
2. Sliced Jamon Ibérico by Peregrino
3. Mild Chorizo
4. Anchovy Stuffed Olives by Peregrino
5. Sliced Jamon Ibérico de Bellota

## Loyal Customers

1. Sliced Jamon Serrano by Peregrino
2. Mild Chorizo
3. Sliced Jamon Ibérico by Peregrino
4. Anchovy Stuffed Olives by Peregrino
5. Sliced Jamon Ibérico de Bellota

## Potential Loyalist

1. Sliced Jamon Serrano by Peregrino
2. Sliced Jamon Ibérico by Peregrino
3. Sliced Jamon Ibérico de Bellota
4. Mild Chorizo
5. Anchovy Stuffed Olives by Peregrino

# Top 5 Products for the Different Segments

## New Customers

1. Sliced Jamon Serrano by Peregrino
2. Sliced Jamon Ibérico by Peregrino
3. Sliced Jamon Ibérico de Bellota
4. Anchovy Stuffed Olives by Peregrino
5. Mild Chorizo

## At Risk

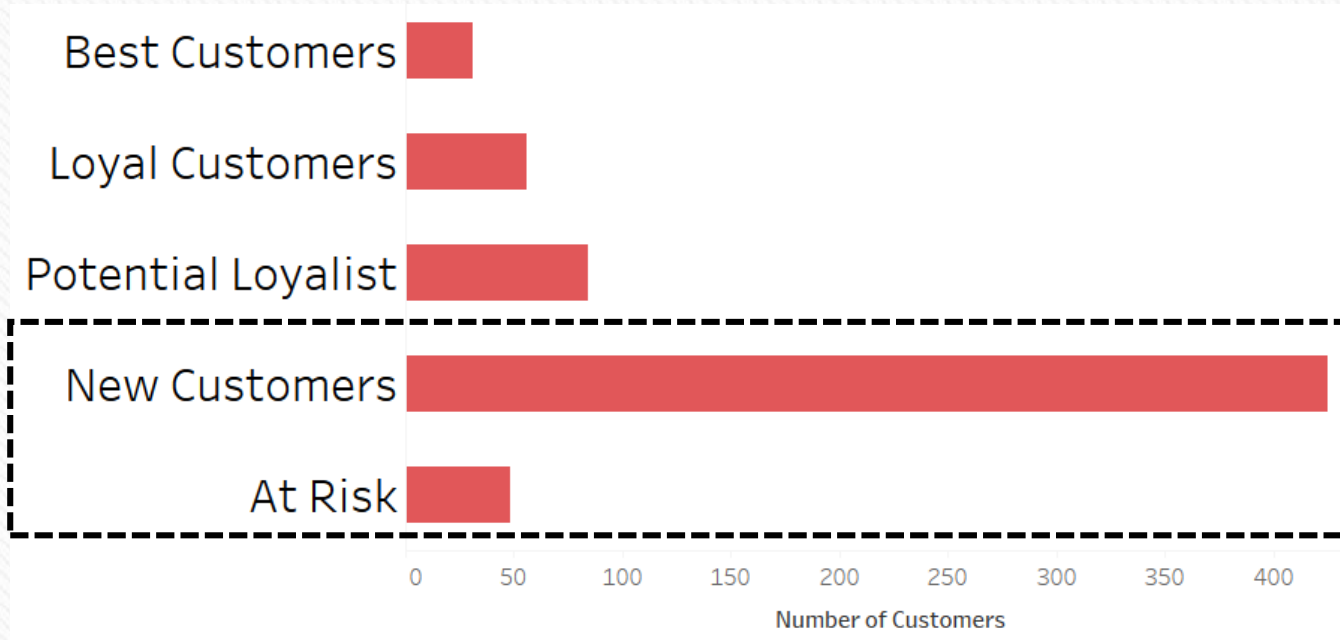
1. Sliced Jamon Serrano by Peregrino
2. Sliced Jamon Ibérico by Peregrino
3. Mild Chorizo
4. Anchovy Stuffed Olives by Peregrino
5. Sliced Jamon Ibérico de Bellota

## Can't Lose Them

1. Sliced Jamon Serrano by Peregrino
2. Mild Chorizo
3. Anchovy Stuffed Olives by Peregrino
4. Sliced Jamon Ibérico by Peregrino
5. **Spanish Cooking Chorizo**



# Amazon Customer Segmentation Distribution



- Pay attention to new customers and at risk customers from Amazon, which could be brought to [redacted] through promotions or coupons.

## Top 3 products for amazon customers

### New Customers

1. Wine Porron - 1 lt.
2. Blue/Yellow Garlic Jar 6"x5"
3. Sliced Anchovy Stuffed Olives by Peregrino



### At Risk

1. Wine Porron - 1 lt.
2. Aji Panca Paste by Zocalo
3. XL Sweet Smoked Paprika (Mild) by La Dalia

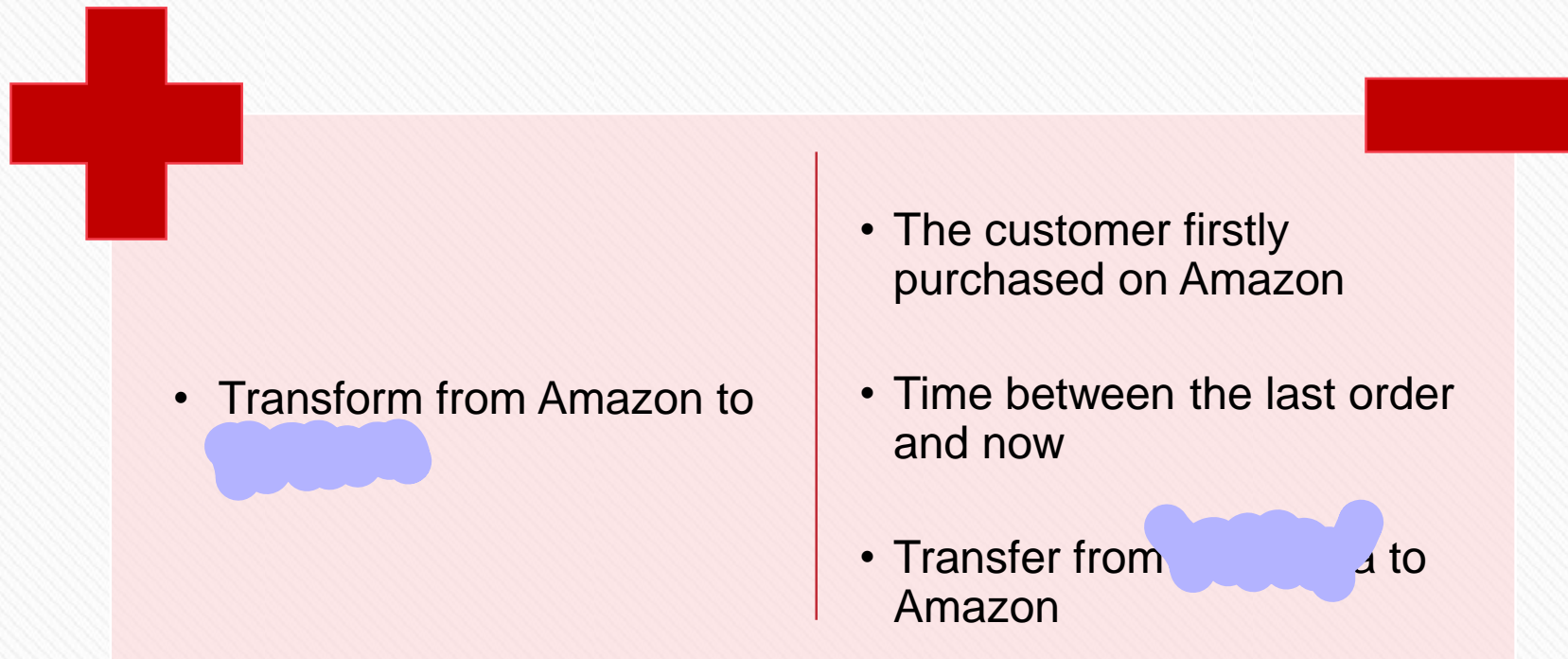




## **Diagnostic Analysis**

# Factors that Influence Customer Value

- Lasso Regression Analysis
- Customer value: revenue created by a customer



\*All factors are statistically significant to influence customer value



# Factors that Influence Customer Churn

## Customer Churn:

If a customer has not purchased for 2 years, this customer is defined as churned customer

## Factors that Influence Customer Churn: (classification tree)



**Frequency** (days/purchase) <536

→ active



**Zip code**

01938, 10705, 12531,  
22015, 32119, 38002,  
47714, 60646, 80124

→ active



**City**

Albany, Austin, Avon, Farson,  
Los Lunas, Williamsburg

→ active

# Conclusions

- More customers transferred from [REDACTED] to Amazon than vice versa
- Only 2% of Amazon customers converted entirely or partially to [REDACTED]
- Amazon brought in \$55,585 net revenue
- Recommend using the segmented customer base to execute sales and marketing campaigns