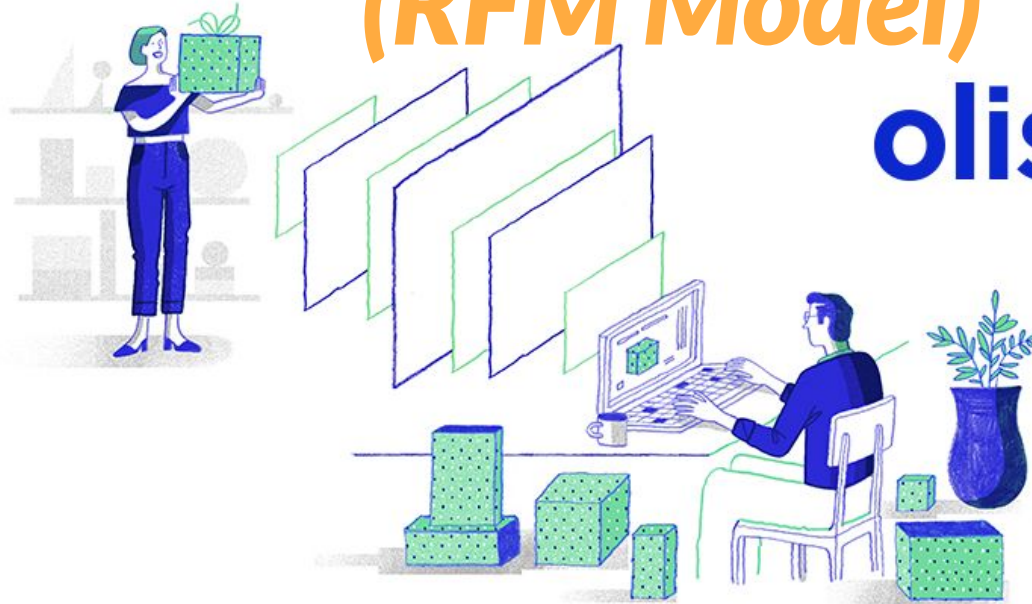


Brazilian E-Commerce (RFM Model)

olist



By Miguel Grisanti

TTP - DATA - Galvanize
2019



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- **Exploring Dataset:** <https://www.kaggle.com/olistbr/brazilian-ecommerce>
 - Jupyter Notebook (Python 3, Pandas, Matplotlib.pyplot, Seaborn)
 - Sales Flow and metrics
- **Segmenting Customer Lifetime Value**
 - RFM Model
 - RMScore and Segmentation
 - Value Matrix
- **Takeaways**

Exploring Dataset

Orders

	order_id	customer_id	order_status	order_purchase_timestamp	order_approved_at	order_purchase_timestamp	order_approved_at	order_delivered_carrier_date	order_delivered_customer_date	order_estimated_delivery_date
0	e481f51cbdc54678b7cc49136f2d5af7	9ef432eb6251297304e76186b10a928d	delivered	2017-10-02 10:56:33	2017-10-02 11:07:15	2017-10-02 10:56:33	2017-10-02 11:07:15	2017-10-04 19:55:00	2017-10-10 21:25:13	2017-10-18 00:00:00
1	53c0b2fcb8c7dca0b6741e2150273451	b0830fb4747a6c6d20dea0b8c802d7ef	delivered	2018-07-24 20:41:37	2018-07-26 03:24:27	2018-07-24 20:41:37	2018-07-26 03:24:27	2018-07-26 14:31:00	2018-08-07 15:27:45	2018-08-13 00:00:00
2	47770eb9100c2d0c44946d3cf07ec65d	41ce2a54cb03bf3443c3d931a367089	delivered	2018-08-08 08:38:49	2018-08-08 08:55:23	2018-08-08 08:38:49	2018-08-08 08:55:23	2018-08-08 13:50:00	2018-08-17 18:06:29	2018-09-04 00:00:00
3	949d5b44dbf5de918f69c16f97b45f8a	f88197465ea7920adcdbeec7375364d82	delivered	2017-11-18 19:28:06	2017-11-18 19:45:59	2017-11-18 19:28:06	2017-11-18 19:45:59	2017-11-22 13:39:59	2017-12-02 00:28:42	2017-12-15 00:00:00
4	ad21c59c0840e6cb83a9ceb5573f8159	8ab97904e6daa8866dbdc4fb7aad2c	delivered	2018-02-13 21:18:39	2018-02-13 22:20:29	2018-02-13 21:18:39	2018-02-13 22:20:29	2018-02-14 19:46:34	2018-02-16 18:17:02	2018-02-26 00:00:00

Customers

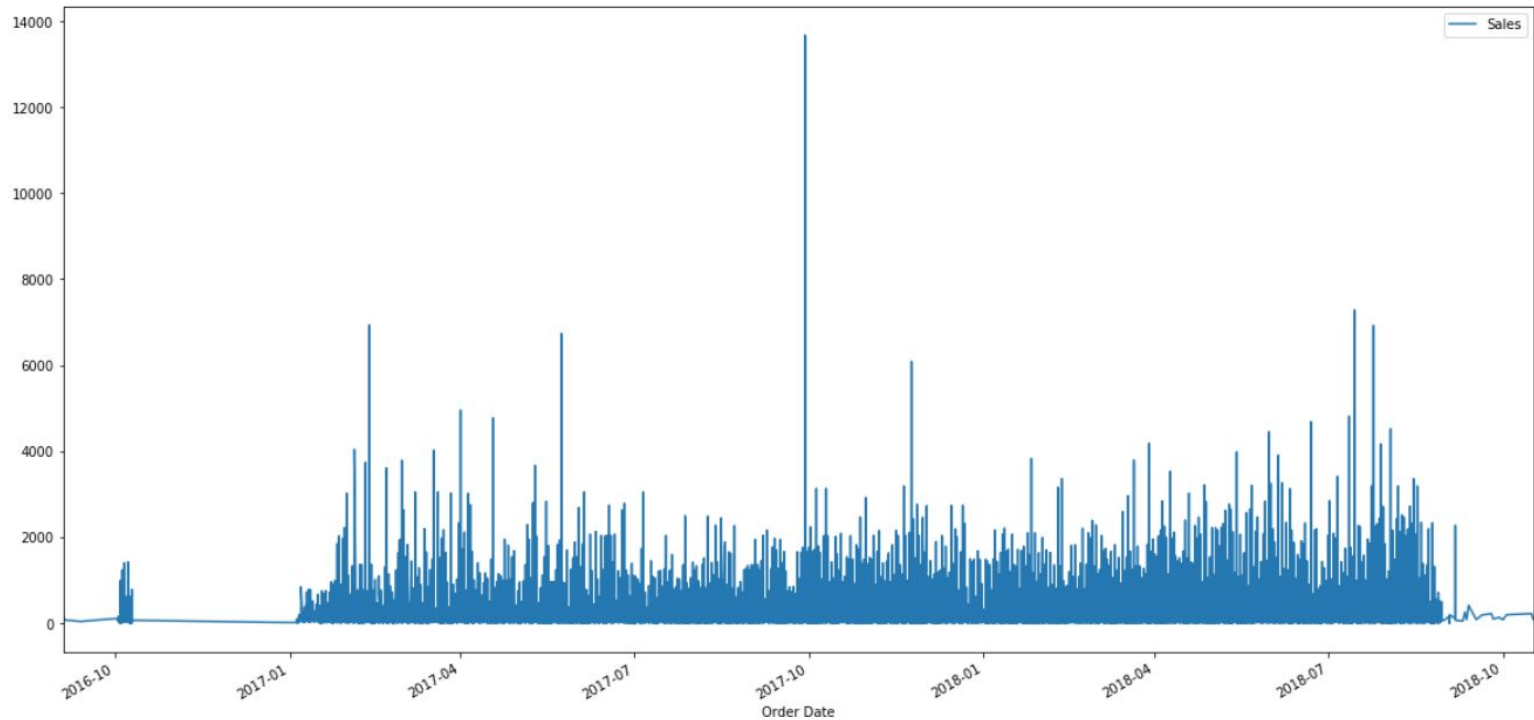
	customer_id	customer_unique_id	customer_zip_code_prefix	customer_city	customer_state
0	06b8999e2fba1a1fbc88172c00ba8bc7	861eff4711a542e4b93843c6dd7febb0	14409	franca	SP
1	18955e83d337fd6b2def6b18a428ac77	290c77bc529b7ac935b93aa66c333dc3	9790	sao bernardo do campo	SP
2	4e7b3e00288586ebd08712fd0374a03	060e732b5b29e8181a18229c7b0b2b5e	1151	sao paulo	SP
3	b2b6027bc5c5109e529d4dc6358b12c3	259dac757896d24d7702b9acbbff3f3c	8775	mogi das cruzeiros	SP
4	4f2d8ab171c80ec83647c12e35b23ad	345ecd01c38d18a9036ed96c73b8d066	13056	campinas	SP

Order Payments

	order_id	payment_sequential	payment_type	payment_installments	payment_value
0	b81ef226f3fe1789b1e8b2acac839d17	1	credit_card	8	99.33
1	a9810da82917af2d9aefd1278f1dcfa0	1	credit_card	1	24.39
2	25e8ea4e93396b6fa0d3dd708e76c1bd	1	credit_card	1	65.71
3	ba78997921bbcdc1373bb41e913ab953	1	credit_card	8	107.78
4	42dfd880ba16b47b59251dd489d4441a	1	credit_card	2	128.45

Customer ID		Order ID	Order Date	Sales
dec8632530ce2c58e688e63cbc5105e6	f86be73e2deb7e4d522ee8922cc02bd7	2017-12-10	30.64	
b69b36cf39cfb2c756e6c1160853823e	324213c21d2577b17bca52fb418cce03	2018-08-08	117.37	
2d2dbe464c4901500b3a3ca4efcb3425	993628d27f2ae9981422ecb389adfa59	2017-06-29	117.46	
a6c22e1aef01b2630980a308bfe91422	76ccfd1f50385cff04dc3ba521500b47	2018-01-26	45.10	
ecf2beb50aa1735749335ce3a3bd6806	a8d0bb7e040a27e689f81ab278d3cb89	2017-05-13	103.28	

Sales Flow



Total Value of Customers Base: over 7M BR\$

Total entries: over 100K

Total customers: almost 100K

Segmenting Customers

Why?

Personalization, Insights, to build tailored Marketing and Content

What are we building?

With our data we are able to create a 2 x 2 value matrix with 4 customer groups. Each group will differ from the other depending on 2 dimensions:

(1) Current Customer Value (2) Potential Customer Value

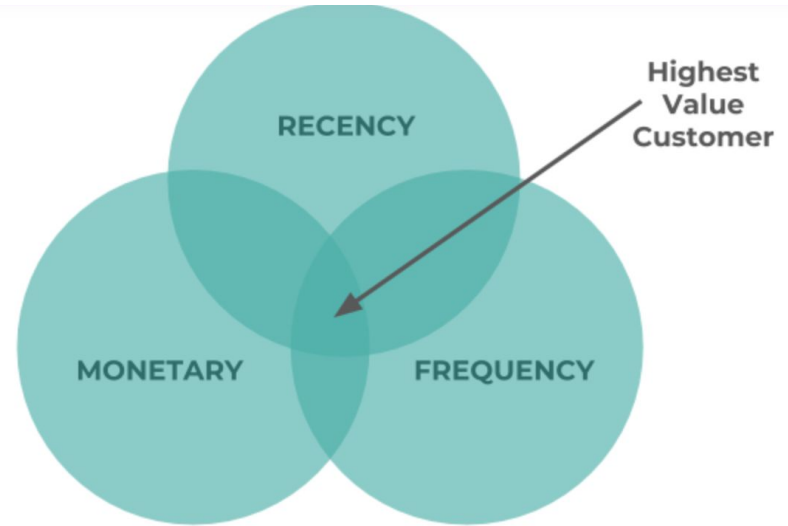
RFM Model

Recency: When was the last time they purchased?

Frequency: How often and for how long have they purchased?

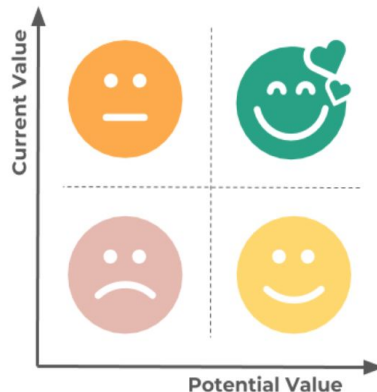
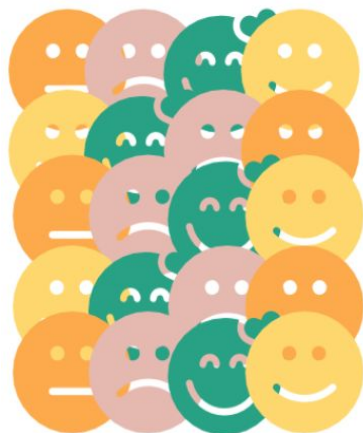
Monetary Value: How much have they purchased?

Customer ID	Recency	Frequency	Monetary
0a0a92112bd4c708ca5fde585afaa872	383	1	13664.08
46450c74a0d8c5ca9395da1daac6c120	61	3	9553.02
da122df9eeddfedc1dc1f5349a1a690c	564	2	7571.63
763c8b1c9c68a0229c42c9fc6f662b93	94	1	7274.88
dc4802a71eae9be1dd28f5d788ceb526	612	1	6929.31



RFM Model

RM Score and Segment Value Matrix



Value Matrix

R	1	2
M		
2	528	229
1	524	229

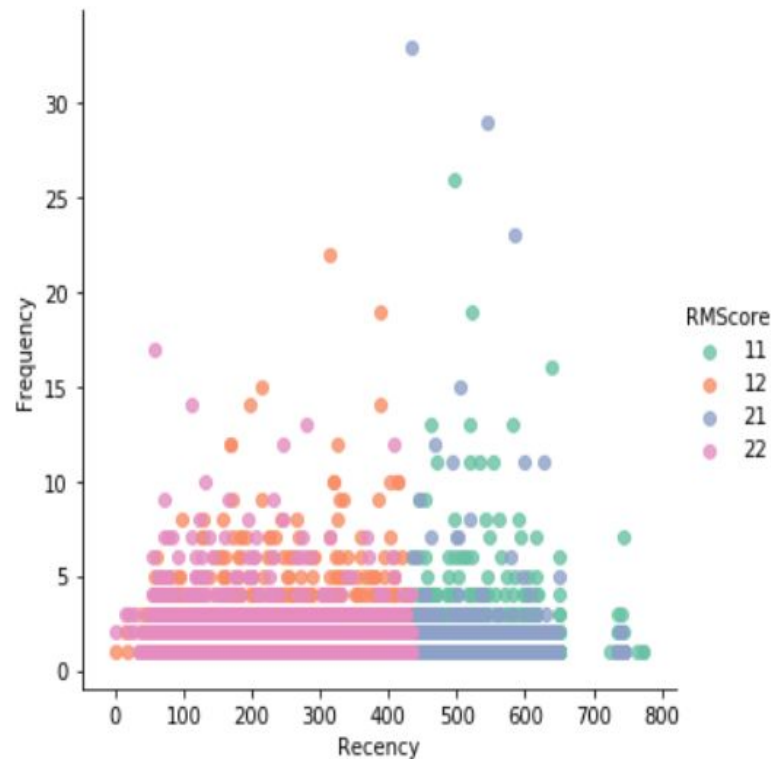
Recency

R	1	2
M		
2	449.0	446.0
1	94.0	97.0

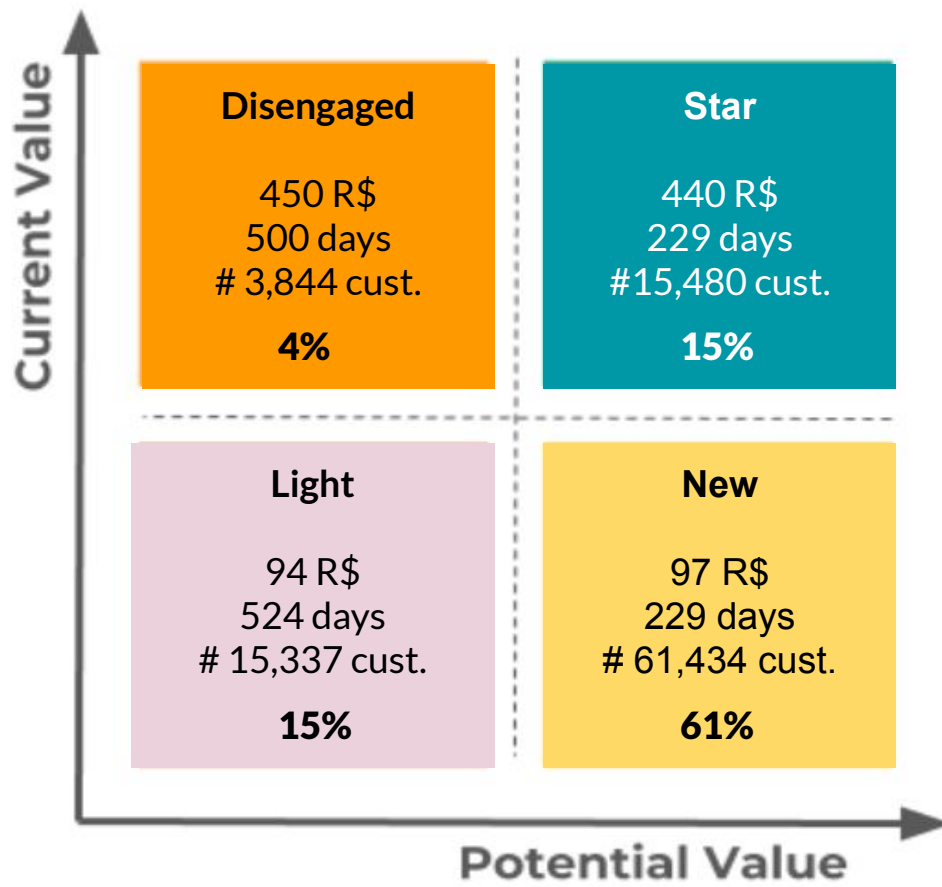
Monetary

R	1	2
M		
2	3844	15480
1	15337	61434

of users



SEGMENT VALUE MATRIX



Takeaways

- Our top priority is focusing on the number of days customers spend without ordering
 - Action: Streamline email, SMS, CRM strategy and build multiple campaign calendar
- We have fewer Disengaged customers, on average they spend a higher amount than our Star customers
 - Action: Create tailored assets for CRM campaign and all channels
- The number of days Light customers spend without making an order is higher than the rest of the segments
 - Action: Brainstorm direct incentives to promote the use of our platform
- The groups that represent our current value contain the least amount of customers, and we have more than half of potential to grow our business
 - Action: Segment further, conduct closer analysis on which products drive our potential users

Thank you!