MRA Project Part-A

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Problem Statement:

An automobile parts manufacturing company has collected data on transactions for 3 years. They do not have any in-house data science team, thus they have hired you as their consultant. Your job is to use your data science skills to find the underlying buying patterns of the customers, provide the company with suitable insights about their customers, and recommend customized marketing strategies for different segments of customers

Dataset:

Auto Sales Data: Sales Data.xlsx

Top few records to get a feel of the data structure are shown below:

ORDERNUMBER QUANTITYORDERED PRICEEACH ORDERLINENUMBER SALES ORDERDATE DAYS_SINCE_LASTORDER STATUS PRODUCTLINE MSRP 10107 95.70 2 2871.00 43155 828 Shipped Motorcycles 10121 81.35 5 2765.90 43227 757 Shipped Motorcycles 703 Shipped 10134 94.74 2 3884.34 43282 Motorcycles 10145 83.26 43337 6 3746.70 649 Shipped Motorcycles 95 10168 96.66 1 3479.76 43401 586 Shipped Motorcycles

Exploratory data analysis (EDA)

The dataset contains 2747 rows and 20 columns

```
df.shape
(2747, 20)
```

The info gives the information of the dataset such as Column name, Non-null count, Dtype. The dataset contains 20 columns in which 2 are float, 6 int and 12 object datatype.

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 2747 entries, 0 to 2746
Data columns (total 20 columns):
     Column
                           Non-Null Count
                                            Dtvpe
     ORDERNUMBER
                           2747 non-null
                                            int64
 1
    OUANTITYORDERED
                           2747 non-null
                                            int64
                           2747 non-null
                                            float64
    PRICEEACH
     ORDERLINENUMBER
                           2747 non-null
                                            int64
                                            float64
     SALES
                           2747 non-null
 5
                                            int64
     ORDERDATE
                           2747 non-null
```

```
DAYS_SINCE_LASTORDER 2747 non-null
                                        int64
6
    STATUS
                         2747 non-null
                                        object
                                        object
    PRODUCTLINE
                         2747 non-null
                         2747 non-null
                                        int64
    MSRP
                         2747 non-null
10 PRODUCTCODE
                                        object
                                        object
11 CUSTOMERNAME
                         2747 non-null
                                        object
12 PHONE
                         2747 non-null
                                        object
13 ADDRESSLINE1
                         2747 non-null
                                        object
                         2747 non-null
14 CITY
                         2747 non-null
15 POSTALCODE
                                        object
                                        object
16 COUNTRY
                         2747 non-null
                                        object
                         2747 non-null
17 CONTACTLASTNAME
                         2747 non-null
                                        object
18 CONTACTFIRSTNAME
                         2747 non-null object
19 DEALSIZE
dtypes: datetime64[ns](1), float64(2), int64(5), object(12)
memory usage: 429.3+ KB
```

Changing the ORDERDATE from int64 to datetime64[ns]

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 2747 entries, 0 to 2746
Data columns (total 20 columns):
                        Non-Null Count Dtype
# Column
Ø ORDERNUMBER
                      2747 non-null int64
1 QUANTITYORDERED 2747 non-null int64
                        2747 non-null float64
   PRTCFFACH
  ORDERLINENUMBER 2747 non-null int64
                        2747 non-null float64
4 SALES
    ORDERDATE
                        2747 non-null
                                       datetime64[ns]
```

The five point summary of the dataset can be obtained from the describe function.

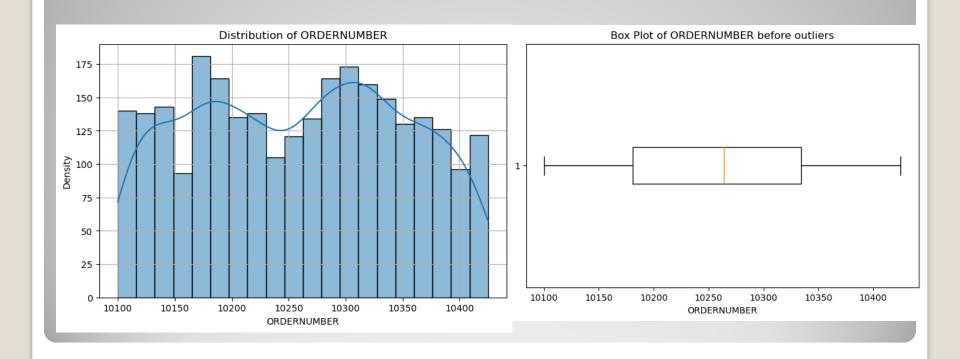
	ORDERNUMBER	QUANTITYORDERED	PRICEEACH	ORDERLINENUMBER	SALES	DAYS_SINCE_LASTORDER	MSRP
count	2747.000000	2747.000000	2747.000000	2747.000000	2747.000000	2747.000000	2747.000000
mean	10259.761558	35.103021	101.098951	6.491081	3553.047583	1757.085912	100.691664
std	91.877521	9.762135	42.042548	4.230544	1838.953901	819.280576	40.114802
min	10100.000000	6.000000	26.880000	1.000000	482.130000	42.000000	33.000000
25%	10181.000000	27.000000	68.745000	3.000000	2204.350000	1077.000000	68.000000
50%	10264.000000	35.000000	95.550000	6.000000	3184.800000	1761.000000	99.000000
75%	10334.500000	43.000000	127.100000	9.000000	4503.095000	2436.500000	124.000000
max	10425.000000	97.000000	252.870000	18.000000	14082.800000	3562.000000	214.000000

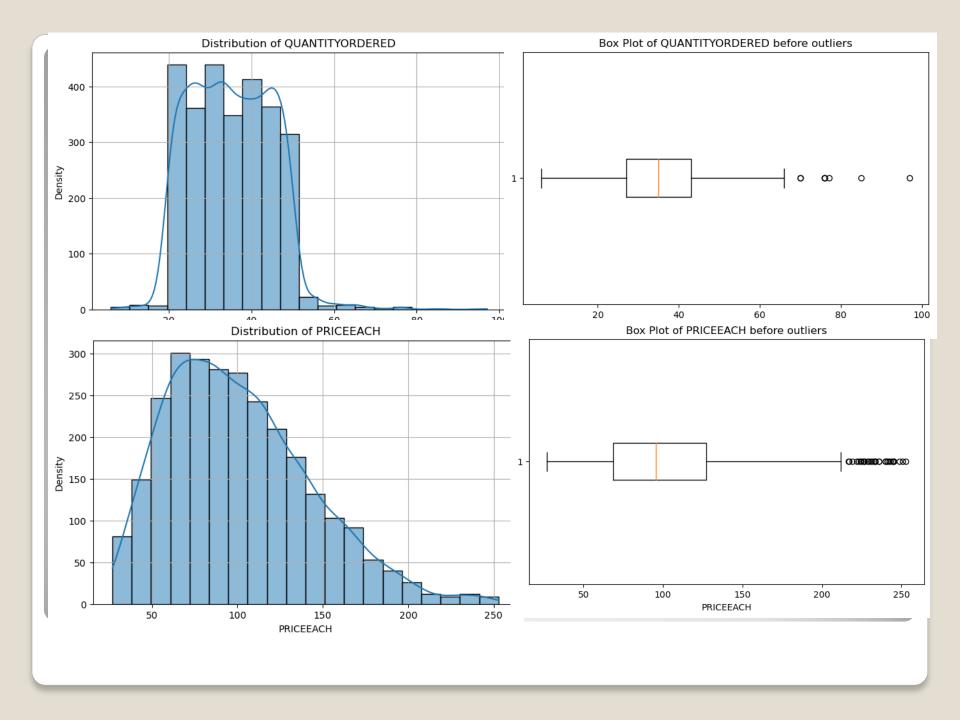
Null values should be check before performing calculations.
 Checking the null values by using isnull function. We have observed that there are no null values present in the dataset.

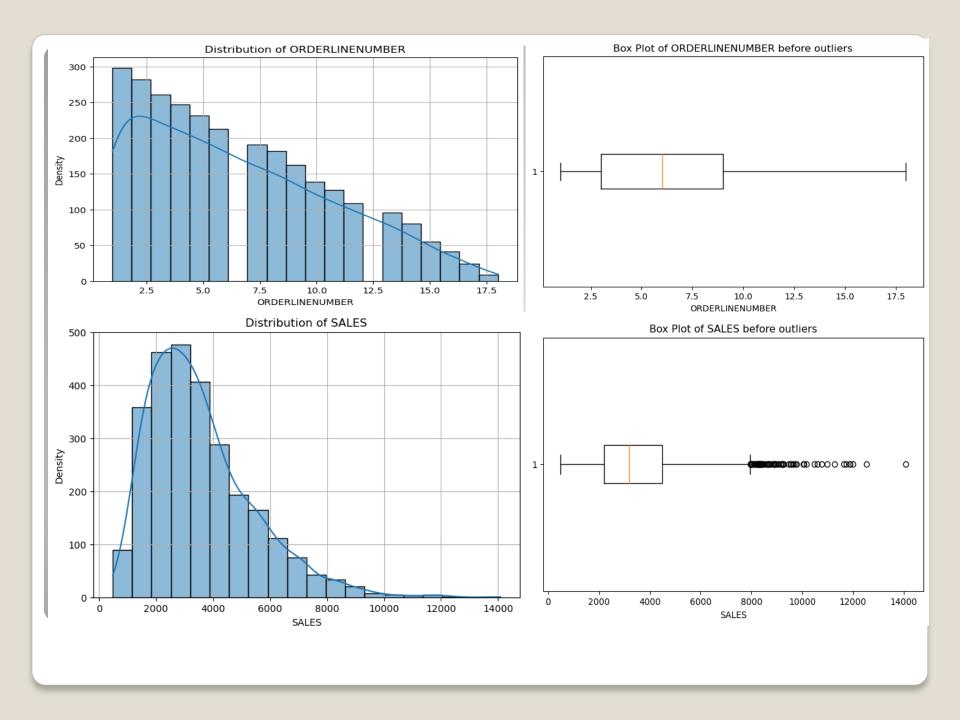
QUANTITYORDERED PRICEEACH ORDERLINENUMBER SALES ORDERDATE DAYS_SINCE_LASTORDER STATUS PRODUCTLINE MSRP PRODUCTCODE CUSTOMERNAME PHONE ADDRESSLINE1 OCITY POSTALCODE COUNTRY CONTACTLASTNAME OCONTACTFIRSTNAME OCONTACTFIRSTNAME OCONTACTS OCONTACT OCO	ORDERNUMBER	0
ORDERLINENUMBER SALES ORDERDATE DAYS_SINCE_LASTORDER STATUS PRODUCTLINE MSRP PRODUCTCODE CUSTOMERNAME PHONE ADDRESSLINE1 OCITY POSTALCODE COUNTRY CONTACTLASTNAME OCONTACTLASTNAME OCONTACTFIRSTNAME OCONTACTFIRSTNAME OCONTACTFIRSTNAME OCONTACTERSTNAME	QUANTITYORDERED	0
SALES ORDERDATE DAYS_SINCE_LASTORDER STATUS PRODUCTLINE MSRP PRODUCTCODE CUSTOMERNAME PHONE ADDRESSLINE1 OCITY POSTALCODE COUNTRY CONTACTLASTNAME OCONTACTLASTNAME OCONTACTFIRSTNAME OCONTACTFIRSTNAME OCONTACTS	PRICEEACH	0
ORDERDATE DAYS_SINCE_LASTORDER STATUS PRODUCTLINE MSRP PRODUCTCODE CUSTOMERNAME PHONE ADDRESSLINE1 CITY POSTALCODE COUNTRY CONTACTLASTNAME DEALSIZE Ø	ORDERLINENUMBER	0
DAYS_SINCE_LASTORDER STATUS PRODUCTLINE MSRP PRODUCTCODE CUSTOMERNAME PHONE ADDRESSLINE1 CITY POSTALCODE COUNTRY CONTACTLASTNAME Ø CONTACTFIRSTNAME Ø DEALSIZE	SALES	0
STATUS PRODUCTLINE MSRP PRODUCTCODE CUSTOMERNAME PHONE ADDRESSLINE1 OCITY POSTALCODE COUNTRY CONTACTLASTNAME OCONTACTFIRSTNAME OCONTACTFIRSTNAME OCONTACTFIRSTNAME OCONTACTFIRSTNAME OCONTACTFIRSTNAME OCONTACTFIRSTNAME OCONTACTFIRSTNAME OCONTACTFIRSTNAME OCONTACTFIRSTNAME	ORDERDATE	0
PRODUCTLINE 0 MSRP 0 PRODUCTCODE 0 CUSTOMERNAME 0 PHONE 0 ADDRESSLINE1 0 CITY 0 POSTALCODE 0 COUNTRY 0 CONTACTLASTNAME 0 DEALSIZE 0	DAYS_SINCE_LASTORDER	0
MSRP PRODUCTCODE CUSTOMERNAME PHONE ADDRESSLINE1 OCITY POSTALCODE COUNTRY CONTACTLASTNAME OCONTACTFIRSTNAME OEALSIZE O	STATUS	0
PRODUCTCODE CUSTOMERNAME PHONE ADDRESSLINE1 OCITY POSTALCODE COUNTRY CONTACTLASTNAME OCONTACTFIRSTNAME ODEALSIZE	PRODUCTLINE	0
CUSTOMERNAME 0 PHONE 0 ADDRESSLINE1 0 CITY 0 POSTALCODE 0 COUNTRY 0 CONTACTLASTNAME 0 CONTACTFIRSTNAME 0 DEALSIZE 0	MSRP	0
PHONE ADDRESSLINE1 Ø CITY Ø POSTALCODE COUNTRY Ø CONTACTLASTNAME O CONTACTFIRSTNAME Ø DEALSIZE	PRODUCTCODE	0
ADDRESSLINE1 Ø CITY Ø POSTALCODE Ø COUNTRY Ø CONTACTLASTNAME Ø CONTACTFIRSTNAME Ø DEALSIZE Ø	CUSTOMERNAME	0
CITY 0 POSTALCODE 0 COUNTRY 0 CONTACTLASTNAME 0 CONTACTFIRSTNAME 0 DEALSIZE 0	PHONE	0
POSTALCODE 0 COUNTRY 0 CONTACTLASTNAME 0 CONTACTFIRSTNAME 0 DEALSIZE 0	ADDRESSLINE1	0
COUNTRY 0 CONTACTLASTNAME 0 CONTACTFIRSTNAME 0 DEALSIZE 0	CITY	0
CONTACTLASTNAME Ø CONTACTFIRSTNAME Ø DEALSIZE Ø	POSTALCODE	0
CONTACTFIRSTNAME Ø DEALSIZE Ø	COUNTRY	0
DEALSIZE Ø	CONTACTLASTNAME	0
	CONTACTFIRSTNAME	0
dtype: int64	DEALSIZE	0
	dtype: int64	

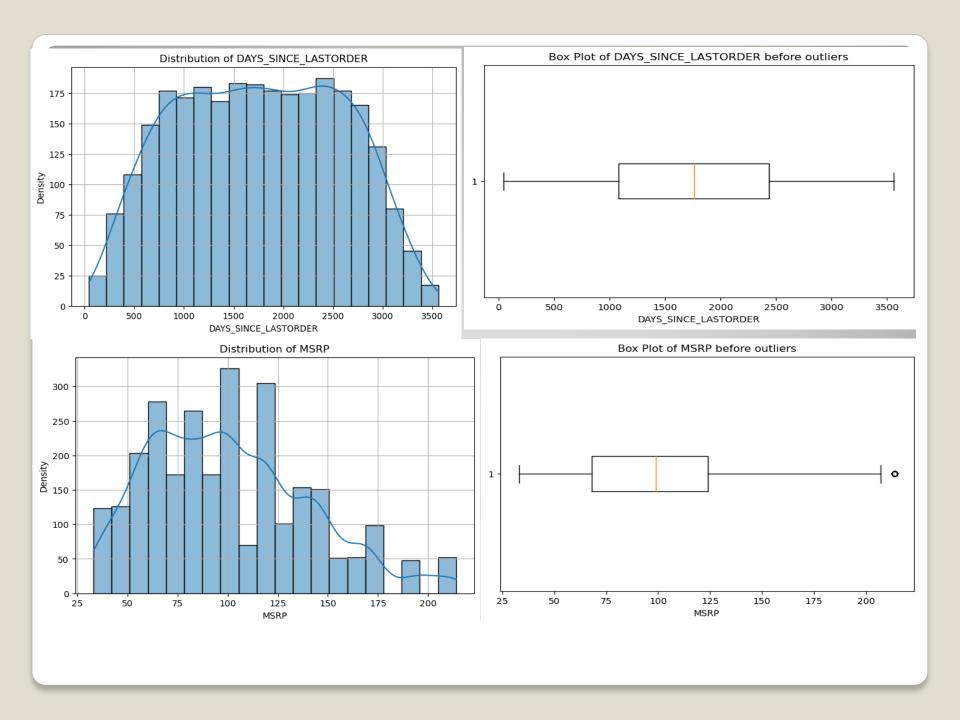
Univariate analysis

The Univariate analysis of the dataset is shown below by using distplot and box plot





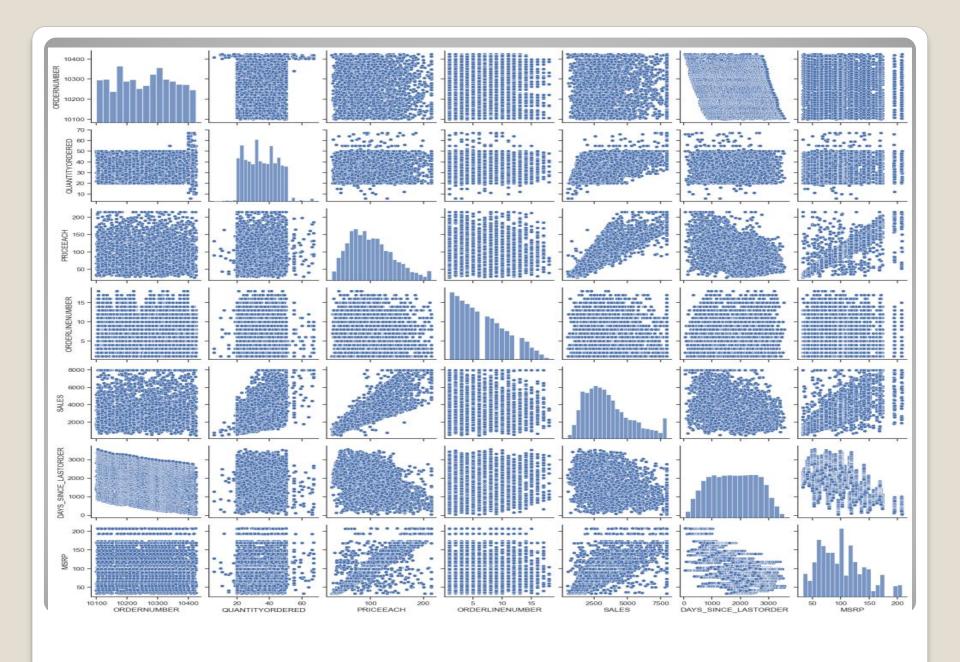




 From the above univariate analysis we can observe that most of the graph are normally distributed but there are outliers present in some graphs such as MSRP, Sales, Priceach.

Bivariate analysis

The Bivariate analysis of the dataset can we done using the pair plot. The pair plot of the dataset is shown below:

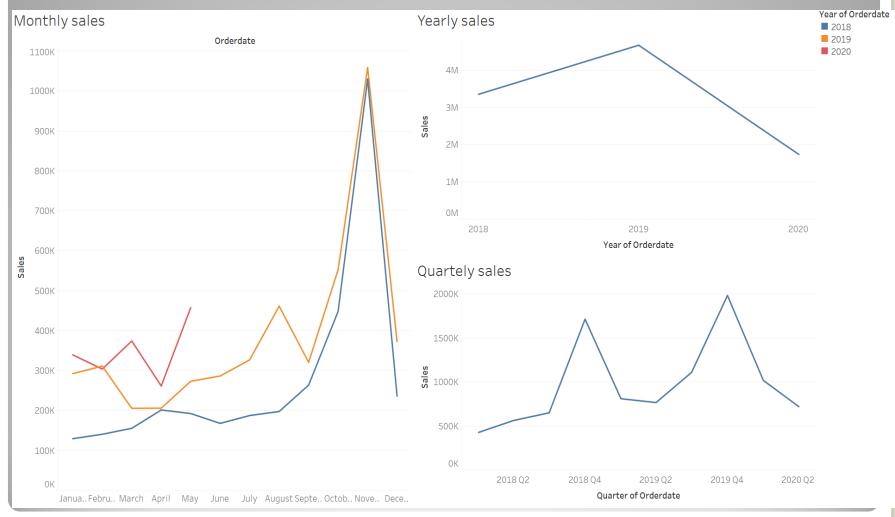


Multivariate Analysis

Below heat map shows that price-each, sales and MSRP are highly correlated.



Sales Across Yearly/Quartely/Monthly

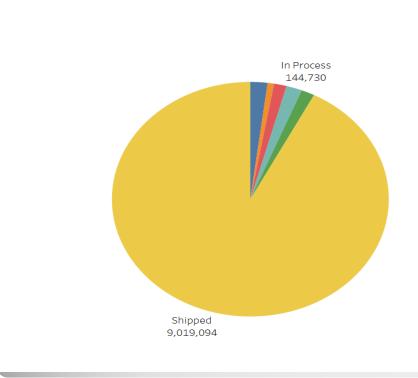


Country wise Sales



Sales vs Status

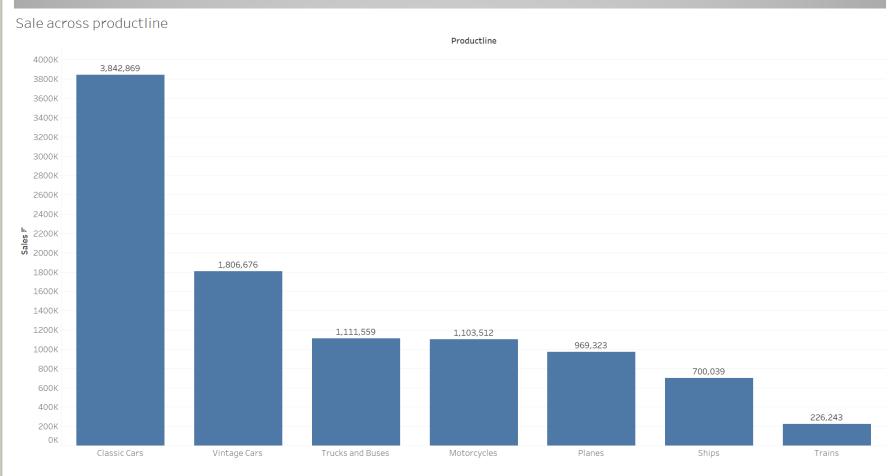
Sales in shipped status is 9,019,094 where sales across in process is 144,730





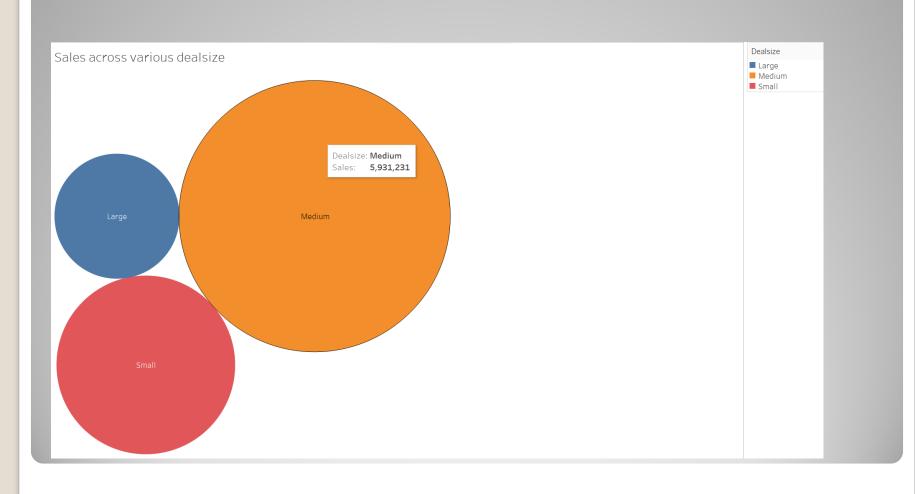
Sales across Product line

From the below graph it is clear that class cars have highest sales where as trains have lowest sales



Sales across Deal size

It is observed that medium deal-size have the highest sale



INFERENCES

- Sales across medium deal size is more as compared to large and small size thus more focus should be done in this area by proving various offers, discount etc.
- Sales can also be increased by reducing the inprocess time and delivering the products as soon as possible.
- Sales in Nov is at peak where as in dec it is decreasing thus it can be increased providing attractive financial schemes by ads, sms etc
- Classic cars have highest sales whereas trains have lowest sale.
- Country USA and City Madrid have the highest city where as Asia South America have no sale.

RFM ANALYSIS

- For performing RFM analysis and customer segmentation KNIME tool is used.
- RFM stands for Recency, Frequency and Monetary value.
- Predictions:

Recency = max order date- order date Frequency = Quantity orders count Monetary = Price-each*Quantity ordered

Using row filter we have filtered the cancelled order

Using above prediction we calculate the Recency, Frequency and Monetary

Rows: 2687 | Columns: 22

~	ADDRESS String	CITY String	POSTALC	COUNTRY String	CONTAC String	CONTAC V	DEALSIZE String	MONETA Number (dou	Recency Number (long)
7818	897 Long Air	NYC	10022	USA	Yu	Kwai	Small	2,871	826
555	59 rue de l'Ab	Reims	51100	France	Henriot	Paul	Small	2,765.9	754
6 62 7	27 rue du Col	Paris	75508	France	Da Cunha	Daniel	Medium	3,884.34	699
7265	78934 Hillsid	Pasadena	90003	USA	Young	Julie	Medium	3,746.7	644
6809	9408 Furth Ci	Burlingame	94217	USA	Hirano	Juri	Medium	3,479.76	580
555	184, chausse	Lille	59000	France	Rance	Martine	Small	2,497.77	566
67 3215	Drammen 12	Bergen	N 5804	Norway	Oeztan	Veysel	Medium	5,512.32	559
55.6555	25, rue Lauris	Paris	75016	France	Perrier	Dominique	Medium	4,708.44	501
0 4555	636 St Kilda	Melbourne	3004	Australia	Ferguson	Peter	Medium	3,965.66	465
1500	2678 Kingsto	NYC	10022	USA	Frick	Michael	Small	2,333.12	421
9350	7476 Moss Rd.	Newark	94019	USA	Brown	William	Medium	3,188.64	378
2570	25593 South	Bridgewater	97562	USA	King	Julie	Medium	3,676.76	337
1555	67, rue des Ci	Nantes	44000	France	Labrune	Janine	Medium	4,177.35	312
8555	39323 Spinna	Cambridge	51247	USA	Hernandez	Marta	Medium	4,099.68	277
8555	Keskuskatu 45	Helsinki	21240	Finland	Karttunen	Matti	Small	2,597.39	243
555	Erling Skakke	Stavern	4110	Norway	Bergulfsen	Jonas	Medium	4,394.38	228
1555	7586 Pompto	Allentown	70267	USA	Yu	Kyung	Medium	4,358.04	210
7818	897 Long Air	NYC	10022	USA	Yu	Kwai	Medium	4,396.14	197
555	Geislweg 14	Salzburg	5020	Austria	Pipps	Georg	Large	7,737.93	188
495 8	Monitor Mon	Chatswood	2067	Australia	Huxley	Adrian	Small	1,451	165
3555	67, rue des Ci	Nantes	44000	France	Labrune	Janine	Small	733.11	117
2555	1785 First Str	New Bedford	50553	USA	Benitez	Violeta	Medium	3,207.12	88
55-22	Berkeley Gard	Liverpool	WX1 6LT	UK	Devon	Elizabeth	Small	2,434.56	52
5 94 44	C/ Moralzarz	Madrid	28034	Spain	Freyre	Diego	Large	7,516.08	17

Converting the above Recency, Frequency and Monetary into bins we will get the data as shown below.

~ ~								
POSTALC	COUNTRY	CONTAC String	CONTAC V	MONETA Number (dou	Recency Number (long)	QUANTIT V	MONETA V	Recency [
EC2 5NT	UK	Ashworth	Victoria	157,807.81	195	Bin 3	Bin 3	Bin 2
31000	France	Roulet	Annette	70,488.44	63	Bin 2	Bin 2	Bin 1
10100	Italy	Accorti	Paolo	94,117.26	264	Bin 2	Bin 2	Bin 3
2060	Australia	O'Hara	Anna	153,996.13	82	Bin 3	Bin 3	Bin 2
44000	France	Schmitt	Carine	24,179.96	187	Bin 1	Bin 1	Bin 2
3150	Australia	Connery	Sean	64,591.46	21	Bin 2	Bin 1	Bin 1
3004	Australia	Ferguson	Peter	200,995.41	183	Bin 3	Bin 3	Bin 2
4101	Australia	Calaghan	Tony	59,469.12	118	Bin 1	Bin 1	Bin 2
78000	France	Tonini	Daniel	64,834.32	232	Bin 1	Bin 1	Bin 3
75016	France	Perrier	Dominique	93,170.66	53	Bin 2	Bin 2	Bin 1
58339	USA	Taylor	Leslie	26,479.26	179	Bin 1	Bin 1	Bin 2
4110	Norway	Bergulfsen	Jonas	116,599.19	207	Bin 2	Bin 2	Bin 2
30686	Germany	Donnermeyer	Michael	34,993.92	258	Bin 1	Bin 1	Bin 3
50528	Germany	Keitel	Roland	85,171.59	207	Bin 2	Bin 2	Bin 2
92561	USA	Young	Leslie	9,129.35	112	Bin 1	Bin 1	Bin 2
28023	Spain	Fernandez	Jesus	49,642.05	438	Bin 1	Bin 1	Bin 3
51247	USA	Tseng	Kyung	36,163.62	388	Bin 1	Bin 1	Bin 3
V3F 2K1	Canada	Tannamuri	Yoshi	75,238.92	221	Bin 2	Bin 2	Bin 2
71270	USA	Cervantes	Francisca	67,506.97	229	Bin 1	Bin 1	Bin 2
10022	USA	Hernandez	Maria	77,795.2	191	Bin 2	Bin 2	Bin 2
2	Ireland	Cassidy	Dean	57,756.43	257	Bin 1	Bin 1	Bin 3
91217	USA	Thompson	Valarie	87,489.23	459	Bin 2	Bin 2	Bin 3
58339	USA	Nelson	Allen	81,577.98	131	Bin 2	Bin 2	Bin 2
28023	Spain	Sommer	Martin	120,615.28	211	Bin 3	Bin 3	Bin 2

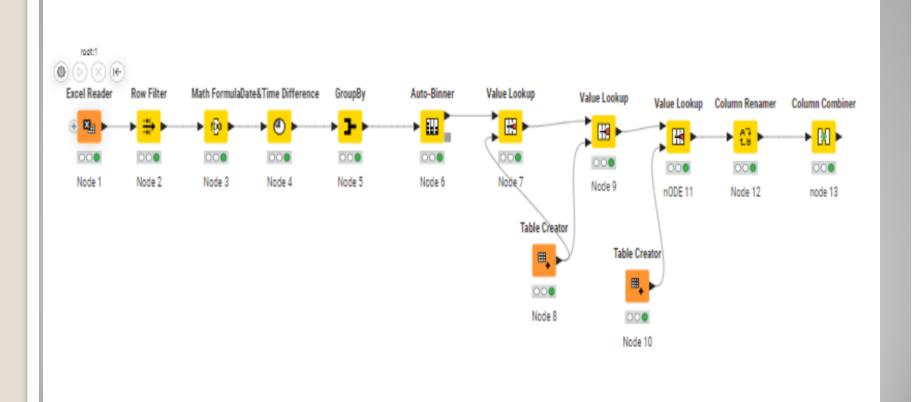
Converting the Bin1, Bin2, Bin 3 as High,
 Medium and Low for Monetary and frequency whereas for Recency it will be vice versa.

Rows: 89	Columns: 1	8							
~	POSTALC	COUNTRY V	CONTAC String	CONTAC String	MONETA Number (dou	Recency Number (long)	QUANTIT V	MONETA V	Recency [
ester	EC2 5NT	UK	Ashworth	Victoria	157,807.81	195	Н	Н	М
se	31000	France	Roulet	Annette	70,488.44	63	M	М	Н
	10100	Italy	Accorti	Paolo	94,117.26	264	М	М	L
Sydney	2060	Australia	O'Hara	Anna	153,996.13	82	Н	Н	M
	44000	France	Schmitt	Carine	24,179.96	187	L	L	M
averly	3150	Australia	Connery	Sean	64,591.46	21	М	L	Н
ırne	3004	Australia	Ferguson	Peter	200,995.41	183	Н	Н	M
Brisbane	4101	Australia	Calaghan	Tony	59,469.12	118	L	L	M
les	78000	France	Tonini	Daniel	64,834.32	232	L	L	L
	75016	France	Perrier	Dominique	93,170.66	53	М	M	Н
iven	58339	USA	Taylor	Leslie	26,479.26	179	L	L	M
1	4110	Norway	Bergulfsen	Jonas	116,599.19	207	М	M	M
i:	80686	Germany	Donnermeyer	Michael	34,993.92	258	L	L	L
ırt	60528	Germany	Keitel	Roland	85,171.59	207	М	М	M
le	92561	USA	Young	Leslie	9,129.35	112	L	L	M
	28023	Spain	Fernandez	Jesus	49,642.05	438	L	L	L
idge	51247	USA	Tseng	Kyung	36,163.62	388	L	L	L
ıver	V3F 2K1	Canada	Tannamuri	Yoshi	75,238.92	221	M	M	M
elphia	71270	USA	Cervantes	Francisca	67,506.97	229	L	L	M
	10022	USA	Hernandez	Maria	77,795.2	191	М	М	M
	2	Ireland	Cassidy	Dean	57,756.43	257	L	L	L
ego	91217	USA	Thompson	Valarie	87,489.23	459	М	М	L
aven	58339	USA	Nelson	Allen	81,577.98	131	М	М	M
	28023	Spain	Sommer	Martin	120.615.28	211	Н	Н	M

On combining the column we will get the RFM column as shown below :

····	COUNTRY String	CONTAC String	CONTAC String	Monetary Number (dou	Recency Number (long)	FREQUEN String	MONETA String	RECENCY String	RFM ↑ String	~ Z
	Denmark	Petersen	Jytte	145,041.6	45	Н	Н	Н	H,H,H	
	Spain	Freyre	Diego	862,283.46	-1	Н	Н	Н	H,H,H	
	Italy	Moroni	Maurizio	142,601.33	20	Н	Н	Н	H,H,H	
	France	Labrune	Janine	180,124.9	-1	Н	Н	Н	H,H,H	
	USA	Nelson	Valarie	654,858.06	1	Н	Н	Н	H,H,H	
	France	Henriot	Paul	135,042.94	61	Н	Н	Н	H,H,H	
	Austria	Pipps	Georg	149,798.63	13	Н	Н	Н	H,H,H	
	Australia	Huxley	Adrian	151,570.98	1	Н	Н	Н	H,H,H	
	USA	Frick	Sue	160,010.27	38	Н	Н	Н	H,H,H	
2	Japan	Shimamura	Akiko	120,562.74	38	Н	Н	Н	Н,Н,Н	
	France	Saveley	Mary	142,874.25	455	Н	Н	L	H,H,L	
	UK	Ashworth	Victoria	157,807.81	195	Н	Н	M	Н,Н,М	
	Australia	O'Hara	Anna	153,996.13	82	Н	Н	M	H,H,M	
	Australia	Ferguson	Peter	200,995.41	183	Н	Н	M	Н,Н,М	
	Spain	Sommer	Martin	120,615.28	211	H	H	M	Н,Н,М	
	Singapore	Natividad	Eric	172,989.68	89	Н	Н	M	Н,Н,М	
	USA	Yu	Kwai	118,711.78	197	Н	Н	М	H,H,M	
	USA	Young	Jeff	197,736.94	181	Н	Н	M	Н,Н,М	
	USA	Young	Valarie	131,685.3	208	Н	Н	M	H,H,M	
	Italy	Rovelli	Giovanni	137,955.72	200	Н	Н	M	H,H,M	
	USA	Hirano	Juri	120,783.07	146	Н	Н	M	Н,Н,М	
	Singapore	Victorino	Wendy	115,498.73	37	Н	M	Н	Н,М,Н	
	UK	Devon	Elizabeth	67,600.02	52	L	L	Н	L,L,H	

KNIME WORKFLOW



INFERENCE

- BEST CUSTOMER:- HHH,MHH
- □ LOYAL CUSTOMER:- HHH, MHH etc
- □ LOST CUSTOMER:- LLL
- CUSTOMER ON THE VERGE OF CHURNING:- LHH

Where L:- LOW

M:- MEDIUM

H:- HIGH

Best customers

#	RowID	CUSTOM	PHONE V	ORDERN Number (inte	QUANTIT V	SALES Number (dou	ORDERD V	DAYS_SI Number (inte	ADDRESS _V	CITY String	POSTALC _V	COUNTRY String
27	Row	Danish Whole	31 12 3555	36	1315	145,041.6	2020-04-15	499	Vinb'Itet 34	Kobenhavn	1734	Denmark
33	Row	Euro Shoppin	(91) 555 94 44	243	8722	862,283.46	2020-05-31	42	C/ Moralzarz	Madrid	28034	Spain
42	Row	L'ordine Souv	0522-556555	39	1280	142,601.33	2020-05-10	493	Strada Provin	Reggio Emilia	42100	Italy
44	Row	La Rochelle G	40.67.8555	53	1832	180,124.9	2020-05-31	139	67, rue des Ci	Nantes	44000	France
54	Row	Mini Gifts Dis	4155551450	180	6366	654,858.06	2020-05-29	219	5677 Strong	San Rafael	97562	USA
64	Row	Reims Collect	26.47.1555	41	1433	135,042.94	2020-03-30	287	59 rue de l'Ab	Reims	51100	France
68	Row	Salzburg Coll	6562-9555	40	1442	149,798.63	2020-05-17	188	Geislweg 14	Salzburg	5020	Austria
73	Row	Souveniers A	+61 2 9495 8	46	1601	151,570.98	2020-05-29	186	Monitor Mon	Chatswood	2067	Australia
79	Row	The Sharp Gif	4085553659	40	1656	160,010.27	2020-04-22	182	3086 Ingle Ln.	San Jose	94217	USA
80	Row	Tokyo Collect	+81 3 3584 0	32	1150	120,562.74	2020-04-22	259	2-2-8 Roppongi	Minato-ku	106-0032	Japan
69	Row	Saveley & He	78.32.5555	41	1428	142,874.25	2019-03-02	586	2, rue du Com	Lyon	69004	France

10	DST	CH	STO	ME	RS
L	ノンロ		$\mathcal{O} \cap \mathcal{O}$		

		1 4	\ /			,						V	\neg
9	Row8	Auto Assoc	30.59.8555	18	637	64,834.32	2019-10-11	275	67, avenue de	Versailles	78000	France	To
13	Row	Bavarian Coll	+49 89 61 08	14	401	34,993.92	2019-09-15	801	Hansastr. 15	Munich	80686	Germany	Do
16	Row	CAF Imports	+34 913 728	13	468	49,642.05	2019-03-19	625	Merchants H	Madrid	28023	Spain	Fe
17	Row	Cambridge C	6175555555	11	357	36,163.62	2019-05-08	484	4658 Baden	Cambridge	51247	USA	Ts
21	Row	Clover Collec	+353 1862 15	16	490	57,756.43	2019-09-16	659	25 Maiden La	Dublin	2	Ireland	Ca
30	Row	Double Decke	(171) 555-75	12	357	36,019.04	2019-01-22	670	120 Hanover	London	WA1 1DP	UK	Нε
41	Row	Iberia Gift Im	(95) 555 82 82	15	589	54,723.62	2019-10-06	904	C/ Romero, 33	Sevilla	41101	Spain	Rc
59	Row	Online Mini C	6175557555	15	572	57,197.96	2019-09-10	467	7635 Spinnak	Brickhaven	58339	USA	Ва
71	Row	Signal Collect	4155554312	15	514	50,218.51	2019-02-10	836	2793 Furth Ci	Brisbane	94217	USA	Ta
88	Row	West Coast C	3105553722	13	511	46,084.64	2019-01-29	523	3675 Furth Ci	Burbank	94019	USA	Th
			/										

CUSTOMER ON THE VERGE OF CHURNING

17	Row	Cambridge C	6175555555	11	357	36,163.62	2019-05-08	484	4658 Baden	Cambridge	51247	USA	T
21	Row	Clover Collec	+353 1862 15	16	490	57,756.43	2019-09-16	659	25 Maiden La	Dublin	2	Ireland	С
30	Row	Double Decke	(171) 555-75	12	357	36,019.04	2019-01-22	670	120 Hanover	London	WA1 1DP	UK	Н
41	Row	Iberia Gift Im	(95) 555 82 82	15	589	54,723.62	2019-10-06	904	C/ Romero, 33	Sevilla	41101	Spain	R
59	Row	Online Mini C	6175557555	15	572	57,197.96	2019-09-10	467	7635 Spinnak	Brickhaven	58339	USA	В
71	Row	Signal Collect	4155554312	15	514	50,218.51	2019-02-10	836	2793 Furth Ci	Brisbane	94217	USA	T
88	Row	West Coast C	3105553722	13	511	46,084.64	2019-01-29	523	3675 Furth Ci	Burbank	94019	USA	T
84	Row	UK Collectabl	(171) 555-22	15	617	67,600.02	2020-04-08	76	Berkeley Gard	Liverpool	WX1 6LT	UK	D
38	Row	Handji Gifts&	+65 224 1555	36	1236	115,498.73	2020-04-23	488	Village Close	Singapore	69045	Singapore	V
1	Row0	AV Stores, Co.	(171) 555-15	51	1778	157,807.81	2019-11-17	421	Fauntleroy Cir	Manchester	EC2 5NT	UK	А
4	Row3	Anna's Decor	02 9936 8555	46	1469	153,996.13	2020-03-09	131	201 Miller Str	North Sydney	2060	Australia	0
7	Row6	Australian Co	03 9520 4555	55	1926	200,995.41	2019-11-29	229	636 St Kilda	Melbourne	3004	Australia	F
24	Row	Corrida Auto	(91) 555 22 82	32	1163	120,615.28	2019-11-01	407	C/ Araquil, 67	Madrid	28023	Spain	S
31	Row	Dragon Souv	+65 221 7555	43	1524	172,989.68	2020-03-02	649	Bronz Sok., B	Singapore	79903	Singapore	N

Loyal Customers

#	RowID	CUSTOM V	PHONE String	ORDERN Number (inte	QUANTIT Number (inte	SALES Number (dou	ORDERD Local Date	DAYS_SI Number (inte	ADDRESS	CITY String	POSTALC	COUNTRY String
27	Row	Danish Whole	31 12 3555	36	1315	145,041.6	2020-04-15	499	Vinb'Itet 34	Kobenhavn	1734	Denmark
33	Row	Euro Shoppin	(91) 555 94 44	243	8722	862,283.46	2020-05-31	42	C/ Moralzarz	Madrid	28034	Spain
42	Row	L'ordine Souv	0522-556555	39	1280	142,601.33	2020-05-10	493	Strada Provin	Reggio Emilia	42100	Italy
44	Row	La Rochelle G	40.67.8555	53	1832	180,124.9	2020-05-31	139	67, rue des Ci	Nantes	44000	France
54	Row	Mini Gifts Dis	4155551450	180	6366	654,858.06	2020-05-29	219	5677 Strong	San Rafael	97562	USA
64	Row	Reims Collect	26.47.1555	41	1433	135,042.94	2020-03-30	287	59 rue de l'Ab	Reims	51100	France
68	Row	Salzburg Coll	6562-9555	40	1442	149,798.63	2020-05-17	188	Geislweg 14	Salzburg	5020	Austria
73	Row	Souveniers A	+61 2 9495 8	46	1601	151,570.98	2020-05-29	186	Monitor Mon	Chatswood	2067	Australia
79	Row	The Sharp Gif	4085553659	40	1656	160,010.27	2020-04-22	182	3086 Ingle Ln.	San Jose	94217	USA
80	Row	Tokyo Collect	+81 3 3584 0	32	1150	120,562.74	2020-04-22	259	2-2-8 Roppongi	Minato-ku	106-0032	Japan
69	Row	Saveley & He	78.32.5555	41	1428	142,874.25	2019-03-02	586	2, rue du Com	Lyon	69004	France

Tableau Public

https://public.tableau.com/app/profile/shw eta.tripathi2394/viz/MRAPart-A_17046230890690/saleacrossmontlyquart elyyearly?publish=yes