

Supermarket Data Analysis



> 15%

Non-membership with no clarify behavior
user which lost to bring to customer
relationship



> 77%

Membership Tend to churn (4 weeks
period) which affect to revenue increase

**So what is the
key finding?**



GOAL :



To increase number of
membership



To Decrease
churn rate

GOAL :



To increase number of
membership



To Decrease
churn rate

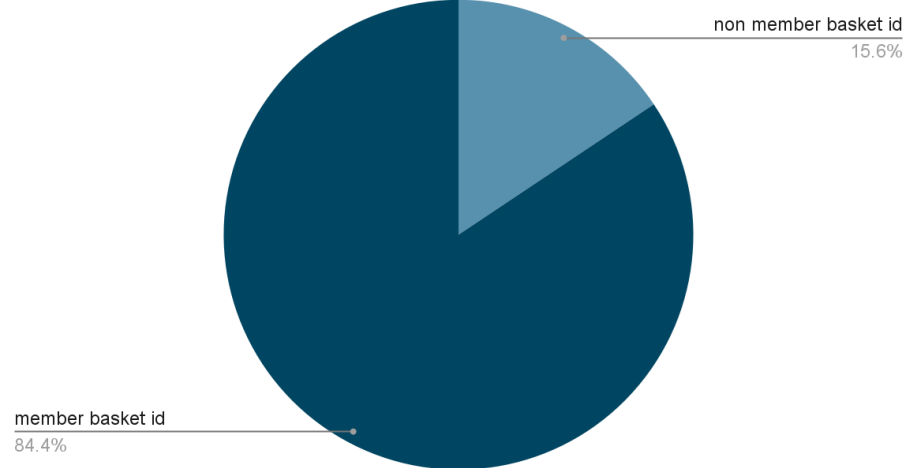
Gain membership |

Data Analyze: Non-membership and product purchase to ship non-membership to membership

unique basket id: 77,234

- **sum member basket id: 65,159**
- **sum non member basket id: 12,075**
- **non member basket id percentage: 15.63%**
- **member basket id percentage: 84.37%**

Points scored



Gain membership |

How to ship 15% non membership to membership?

1st purchase

	PROD_CODE	PROD_CODE_10	counts
2533	PRD0903052	CL00031	475
3639	PRD0904358	CL00063	303
100	PRD0900121	CL00063	259
1050	PRD0901265	CL00030	194
693	PRD0900830	CL00043	152
3061	PRD0903678	CL00222	137
2679	PRD0903228	CL00138	125
4160	PRD0904976	CL00040	120
3158	PRD0903788	CL00001	106
2553	PRD0903074	CL00045	106

Most purchase nonMember

	PROD_CODE	PROD_CODE_10	counts
2958	PRD0903052	CL00031	1440
4223	PRD0904358	CL00063	1093
117	PRD0900121	CL00063	871
1226	PRD0901265	CL00030	538
806	PRD0900830	CL00043	475
3131	PRD0903228	CL00138	445
3670	PRD0903788	CL00001	424
2980	PRD0903074	CL00045	396
4826	PRD0904976	CL00040	391
3563	PRD0903678	CL00222	347

Gain membership |

- **Total Purchase non-member = 12,075 transection**
- **Most Purchase non-member = 4,417 transection**

= 36% of total

non-member transection

PROD_CODE	PROD_CODE_10	counts
PRD0903052	CL00031	1440
PRD0904358	CL00063	1093
PRD0900121	CL00063	871
PRD0901265	CL00030	538
PRD0900830	CL00043	475

Gain membership |

Business Recommendation

1. Registration Membership process
2. Marketing campaign, encourage non-membership to register member

GOAL :



To increase number of
membership



To Decrease
churn rate

Decrease churn rate |

Data Analyze: Analyze meantime behavior to protect customer churn

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supermarket_prepared_by_CUST_CODE_prepared_joined_prepared ⓘ

ExploreChartsStatisticsStatusHistorySettingsPARENT RECIPEACTIONS

Whole data

3,439 rows

COLUMNS (36)DISPLAY

CUST_CODE	SHOP_DATE_last	SHOP_WEEKDAY_last	SHOP_HOUR_last	QUANTITY_min	QUANTITY_...	QUANTITY_avg	QUANTITY_s...	QUANTITY_stddev	SPEND_min	SPEND_max	SPEND_avg
string Text	bigint Date (unparsed)	string Text	string Date (unparsed)	bigint Integer	bigint Integer	double Decimal	bigint Integer	double Decimal	double Decimal	double Decimal	double Decimal
CUST0000000181	20070106	Saturday	13:00-13:59	1	1	1.0	1	0.0	2.44	2.44	
CUST0000000689	20080623	Monday	19:00-19:59	1	9	1.8054054054054054	334	1.329012780458787	0.13	14.8	1.7760
CUST0000000998	20060707	Friday	08:00-08:59	1	3	1.5	6	1.0	0.84	2.25	
CUST00000001163	20080622	Sunday	14:00-14:59	1	4	1.36	34	0.8602325267042626	0.06	8.64	1.5896
CUST00000001194	20080620	Friday	21:00-21:59	1	13	1.4232053422370619	1705	1.0824161884031178	0.01	23.41	2.081
CUST00000002257	20060721	Friday	13:00-13:59	1	1	1.0	1	0.0	1.99	1.99	
CUST00000002605	20080612	Thursday	10:00-10:59	1	1	1.0	6	0.0	0.3	0.3	
CUST00000002637	20080530	Friday	11:00-11:59	1	12	1.4823529411764707	126	1.8101023695457932	0.01	7.56	1.4662
CUST00000002638	20070414	Saturday	17:00-17:59	1	3	1.5	6	1.0	1.57	9.49	
CUST00000002813	20080412	Saturday	19:00-19:59	1	5	1.2164948453608246	118	0.7104400649672378	0.11	6.72	1.4950
CUST00000003028	20080104	Friday	14:00-14:59	1	1	1.0	8	0.0	0.47	3.21	
CUST00000003287	20080510	Saturday	20:00-20:59	1	12	1.2897727272727273	227	1.0315635591777061	0.12	11.11	1.4437
CUST00000003667	20070111	Thursday	21:00-21:59	1	1	1.0	2	0.0	1.21	5.77	3.4899
CUST00000004088	20080629	Sunday	09:00-09:59	1	11	1.6	912	1.4084854571320744	0.01	25.88	1.5794
CUST00000005054	20080615	Sunday	10:00-10:59	1	3	1.2727272727272727	56	0.6942835143575483	0.15	7.05	1.819
CUST00000005057	20080409	Wednesday	17:00-17:59	1	7	1.8888888888888888	68	1.545089507860819	0.15	9.03	2.8469
CUST00000006193	20071110	Saturday	14:00-14:59	1	1	1.0	16	0.0	0.33	2.37	
CUST00000006298	20080302	Sunday	17:00-17:59	1	3	1.4	7	0.8944271909999159	0.24	7.41	2.7239

Decrease churn rate |

Data Analyze: Analyze meantime behavior to protect customer churn

supermarket_prepared_by_CUST_CODE_prepared_joined_prepared

ExploreChartsStatisticsStatusHistorySettingsPARENT RECIPEACTIONS

Whole data3,439 rows

COLUMNS (36)DISPLAY

SPEND_min	SPEND_max	SPEND_avg	SPEND_sum	SPEND_stddev	CUST_PRICE_SENSITIVITY_last_copy	CUST_LIFESTAGE_last_copy	BASKET_PRICE_SENSITIVITY_last_copy	W
double Decimal	double Decimal	double Decimal	double Decimal	double Decimal	string Text	string Text	string Text	do De
0	2.44	2.44	2.44	2.44	0.0	Mid Market	N/A	
7	0.13	14.8	1.7760540540540546	328.5700000000001	1.797741365937105	Less Affluent	N/A	
0	0.84	2.25	1.4875	5.95	0.6950000000000001	Unclass	N/A	
5	0.06	8.64	1.5896000000000003	39.74000000000001	1.8701837699363486	Mid Market	N/A	
3	0.01	23.41	2.081661101836395	2493.8300000000001	2.32798527715119	Mid Market	Other	
0	1.99	1.99	1.99	1.99	0.0	Up Market	Young Adults	
0	0.3	0.3	0.3	1.8	0.0	Mid Market	Other	
2	0.01	7.56	1.4662352941176475	124.63000000000004	1.4434036960226604	Up Market	Older Adults	
0	1.57	9.49	3.8975	15.59	3.7427207127079805	Less Affluent	Young Adults	
3	0.11	6.72	1.4950515463917524	145.01999999999998	1.0673088467723975	Mid Market	Other	
0	0.47	3.21	1.32625	10.61	0.9086872399236163	Mid Market	Other	
1	0.12	11.11	1.4437499999999999	254.09999999999997	1.5050386326318286	Mid Market	Young Families	
0	1.21	5.77	3.4899999999999998	6.9799999999999995	3.2244069222106564	Up Market	Other	
4	0.01	25.88	1.5794736842105261	900.2999999999998	2.2429162232948587	Mid Market	Pensioners	
3	0.15	7.05	1.819545454545455	80.06000000000002	1.327627635077215	Mid Market	N/A	
3	0.15	9.03	2.8469444444444445	102.49000000000001	2.3650633569821515	Mid Market	N/A	
0	0.33	2.37	1.019375	16.31	0.5983028079492858	Mid Market	Older Adults	
3	0.24	7.41	2.7239999999999998	13.62	3.4458569326076205	Mid Market	Young Adults	

Decrease churn rate |

Data Analyze: Analyze meantime behavior to protect customer churn

supermarket_prepared_by_CUST_CODE_prepared_joined_prepared Explore Charts Statistics Status History Settings PARENT RECIPE ACTIONS

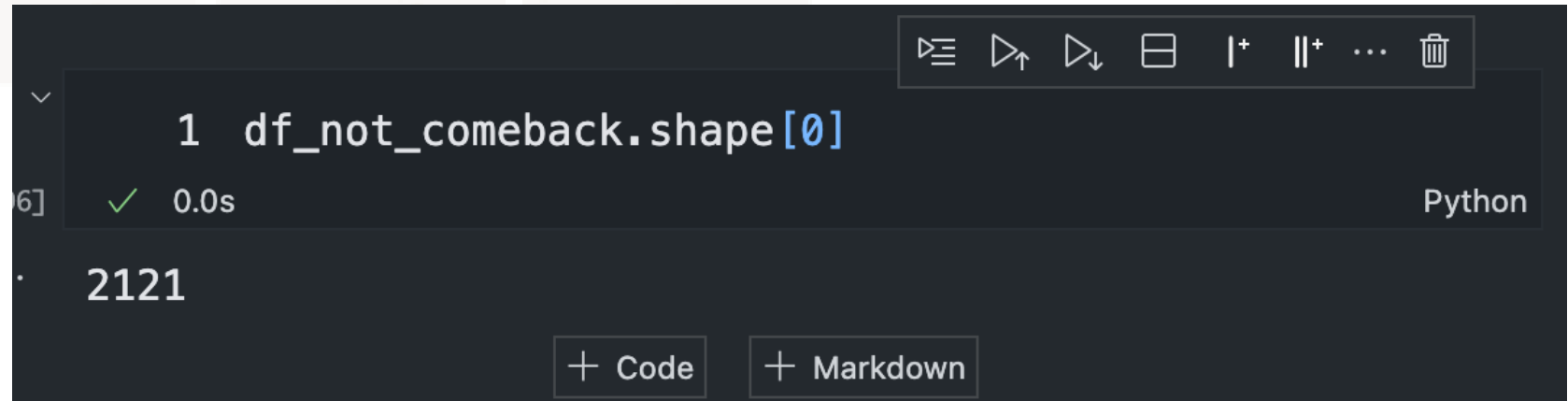
Whole data 3,439 rows COLUMNS (36) DISPLAY

[illegible]

Decrease churn rate |

User Churn : 2,121 User (10 weeks)

Estimate User Churn Rate : 61.67%



The image shows a Jupyter Notebook interface. At the top right of the code cell is a toolbar with icons for running, stepping through, and other actions. The code cell contains a single line of Python code: `1 df_not_comeback.shape[0]`. Below the code, the output is displayed: `6] ✓ 0.0s` followed by the value `2121`. The word `Python` is shown in the bottom right corner of the cell. At the bottom of the notebook interface, there are two buttons: `+ Code` and `+ Markdown`.

```
1 df_not_comeback.shape[0]
```

6] ✓ 0.0s Python

2121

+ Code + Markdown

Decrease churn rate |

User Churn : 2,670 User (4 weeks)

Estimate User Churn Rate : 77.64%

```
1 df_not_comeback.shape[0]
```

✓ 0.0s

2670

Decrease churn rate |

Business Recommendation:

1. Use product promotion to attractive customer that tend to churn
2. Monitor weekly transaction by Customer to encourage

1. ชนภัทร ชัยงาม 6510424010
2. ชนภัทร เอกกมลวิวัฒน์ 6510424020
3. ณัฐชนน เอกพงศ์ไพสิฐ 6510424008
4. ณัฐวิทย์ ไชยรัตนตรัย 6420412006
5. ธิติ สุนทริตสัญชัย 6420412001
6. วิกรม ว่องเชาวิปรีชา 6510424031
7. สรวิชญ์ ศิลปบุรุษ 6420412020
8. อภิวัฒน์ เจริญมบรุษสิทธิ์ 6510424010
9. เมธาวิ มุ่งเจริญ 6510424027

Thanks.

