

Segmenting Customers for Data Plans

November 15th, 2012

Team 4 – Mohali Mavericks

Anu Kohli

Anupam Tripathi

Harshal Suthar

Namrata Raina

Naren Kolary

Data Preparation

Initial

- 129 Variable Columns
- 1859 Customer Rows

Reduce Variables

- Using domain knowledge of cellphone industry
- Using understanding of consumer preferences

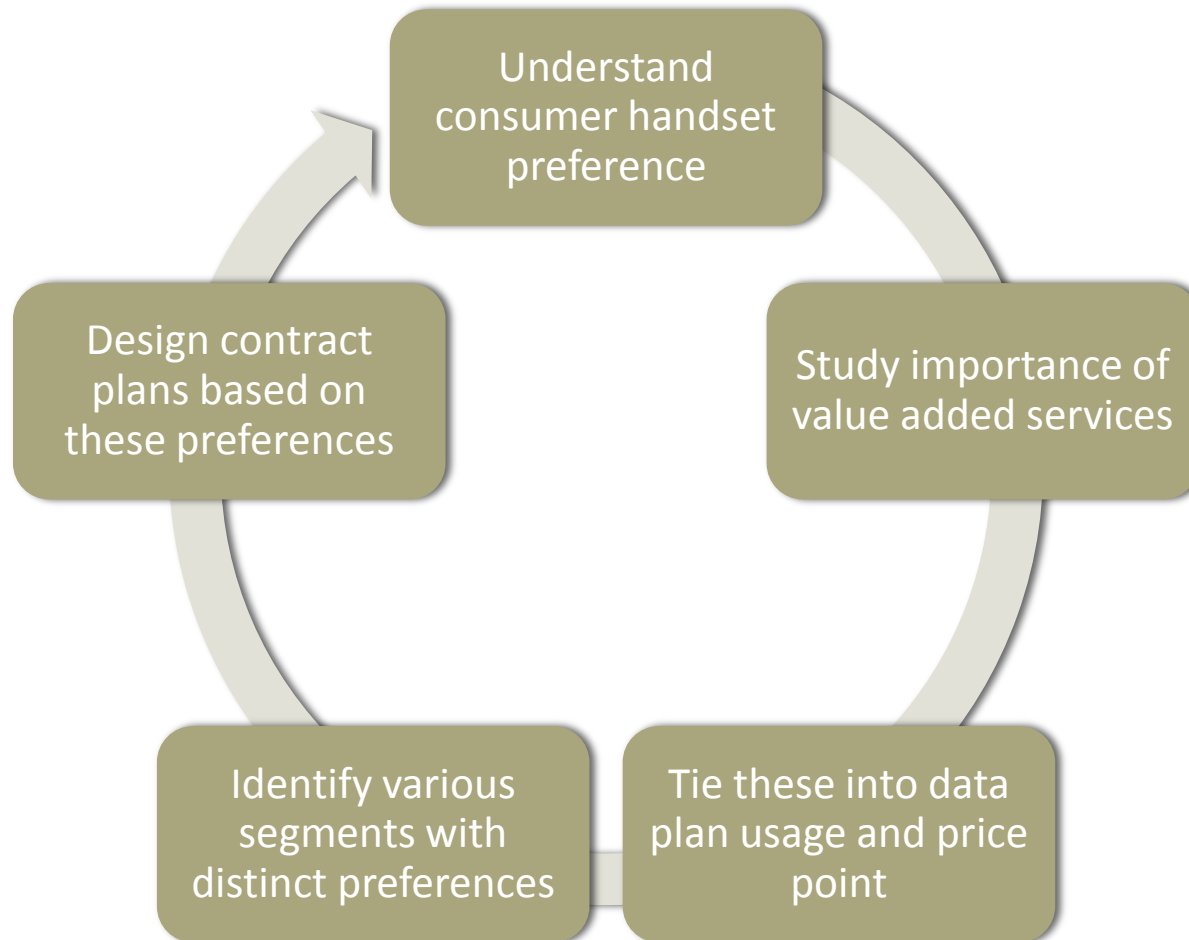
Reduce Rows

- Removed 212 rows with any element as blank or NA

Final

- 29 Variables x 1647 Customers
- Essentials: Handset preference, Average usage of services, Monthly spending on mobile services, Demographics

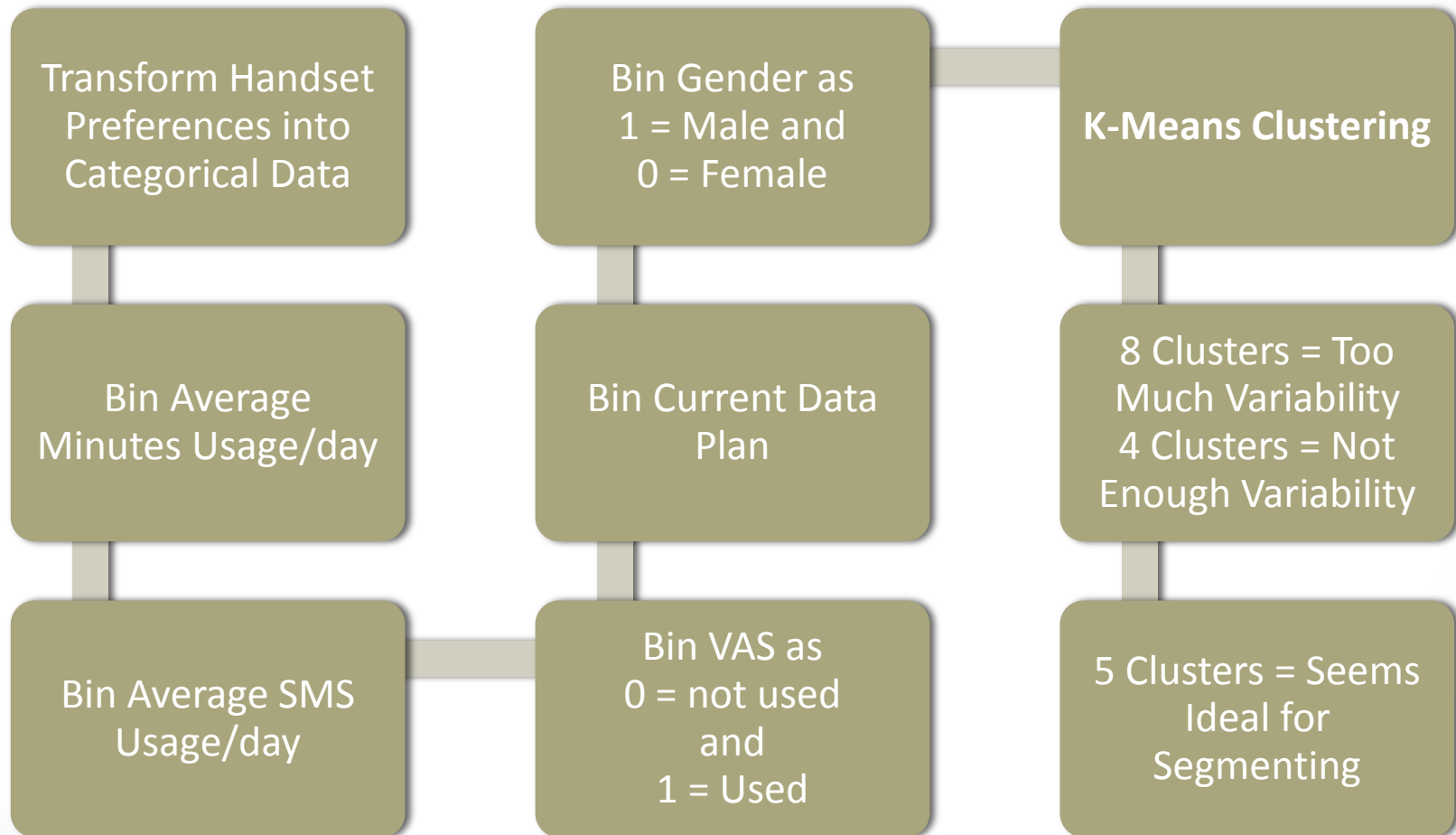
Business Objective



Business Results:

- Less customer turnover
- Reduced customer acquisition and retention costs

Data Mining Method



Customer Segmentation

Cluster	Apple	Blackberry	HTC	Karbons	Lava	LG	Micromax	Motorola	Nokia	Samsung
Cluster-1	0.851485	0.55198	0.45297	0	0.007426	0.032178	0.019802	0.089109	0.403466	0.685644
Cluster-2	0.811502	0.792332	0.255591	0.003195	0.003195	0.019169	0.022364	0.047923	0.680511	0.41214
Cluster-3	0.99308	0.982699	0.982701	0.961938	0.979238	0.965397	0.948097	0.958479	0.99654	0.989619
Cluster-4	0.633621	0.482759	0.25	0.010776	0.006466	0.075431	0.056034	0.122845	0.732759	0.640086
Cluster-5	0.813559	0.559322	0.350282	0.016949	0.022599	0.084746	0.067797	0.107344	0.632768	0.610169

Cluster	Monthly.exp	Avg.mins.per.day	Avg.SMSes.per.day	Caller.Tunes	Ringtone.downloads	E.mail.checking	Social.networking	Cricket.news.or.stock.alerts	Jokes.astrology.etc.
Cluster-1	1341.46022	2.641089	2.571782	0.096535	0.002475	0.972772	0.935644	0.653465	0.009901
Cluster-2	1015.654986	3.00639	2.546325	0.169329	0.035144	0.923322	0.859425	0.182109	0.025559
Cluster-3	933.218391	2.66782	2.778547	0.249135	0.117647	0.695502	0.653979	0.422145	0.148789
Cluster-4	699.461251	2.689655	2.974138	0.118535	0.034483	0.090516	0.051723	0.079741	0.021552
Cluster-5	1275.988649	2.790961	2.384181	0.497175	0.446326	0.920904	0.915254	0.898307	0.790962

Cluster	GPS.facility	Online.games	SMS.MMS	music.video.downloads	Document.Reader.pdf.word.etc.	Current.data.plan	Age	Yearly.household.income	Gender
Cluster-1	0.886138	0.289604	0.955446	0.470297	0.913366	3.415841	28.908415	1917574.3	0.85396
Cluster-2	0.290735	0.070288	0.859425	0.111821	0.402556	4.121406	27.271567	1301597.4	0.507987
Cluster-3	0.49827	0.231834	0.885813	0.380623	0.557093	4.034602	26.989622	1191868.5	0.647059
Cluster-4	0.06681	0.032328	0.711207	0.068965	0.056034	4.743535	31.010779	1139655.2	0.62931
Cluster-5	0.870057	0.638418	0.966102	0.841808	0.830509	3.683616	28.468926	1591807.4	0.751413

Recommendations

Customer Segments and Targeting

High Income Business Users

- iPhone enthusiasts
- High monthly expenditure

- Contract based iPhones
- Data plans with high connectivity

Blackberry Office Users

- Blackberry users
- Emails
- Voicemails

Provide email packages on blackberry

Handset Agnostic Users

No handset preference

Contract plans not recommended

Value Maximizers

- Use max data plan
- Spend least

- Combo of GPRS and messages
- High data usage at low rates

Online Generation

- High social activity
- High monthly expenditure

Social networking packages with high speed data plans

Profile

Targeting

Thank You!