Factors Influencing Consumer Purchase Decision for Maggi Masala

Agenda

- Objective
- Methodology and Questionnaire
- Factor Analysis
- Regression Analysis
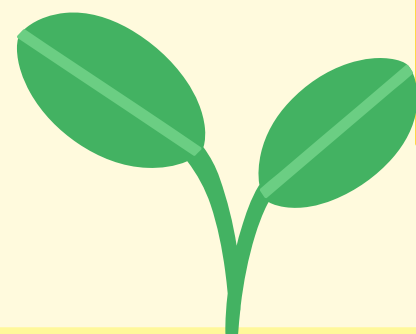- Customer Segmentation
- Conclusion

Project Objectives

Data Preparation

- To design and administer a structured survey using a 1–5 Likert scale across 25–30 variables to capture consumer attitudes and perceptions toward Maggi Masala.
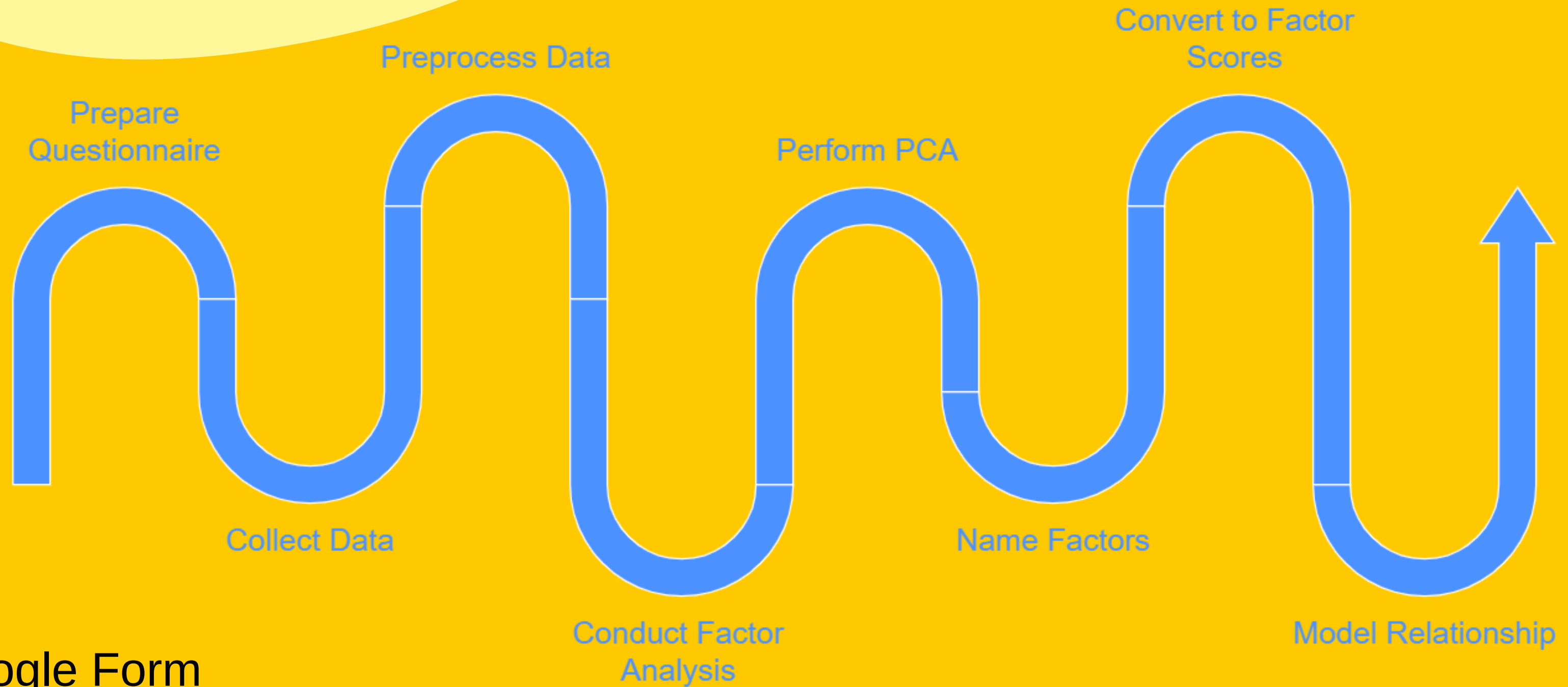
Factor Analysis

- To conduct factor analysis on the survey data, reduce the variables into a smaller set of latent constructs, and derive factor scores

Regression Analysis

- Factor scores used to examine the relationship between these constructs and the likelihood of repurchasing Maggi Masala through regression analysis.

Methodology and Questionnaire

Prepare Questionnaire

Preprocess Data

Perform PCA

Convert to Factor Scores

Collect Data

Conduct Factor Analysis

Name Factors

Model Relationship

Google Form Link

Factor Analysis

Assumption Checking

KMO Measure

KMO value >=0.5 – Acceptable
KMO value <0.5 – Unacceptable
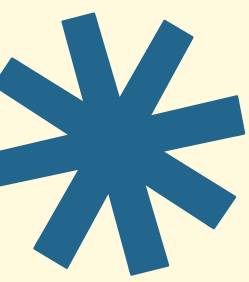
KMO Value: 0.933351

Bartlett Test

Ho: Correlation matrix is an identity matrix
V/S
H1: Correlation matrix is not an identity matrix

Chi Square Value: 3239.5418913488033
P Values: 0.00001

Factor Analysis

- We have applied factor analysis on **29** variables collected from the questionnaire
- Total Cumulative variance explained is **63 %**
- Factor Analysis uses **PCA** for reducing dimensions into **6** Factors and **Varimax** rotation is used for making stable factors
- The Factor Analysis has reduced these **29** variables into **6** major factors namely : **Brand, Taste, Emotional Connect, Affordability, Availability & Advertisement**

Loading Matrix

Original Variables/Factors	Brand	Taste	Emotional connection	Affordability	Availability	Advertisement
The taste of Maggi Masala is perfectly balanced for my liking.	0.10007	0.657834	0.344214	0.224298	0.067089	0.19897
I prefer Maggi Masala over other spice blends available in the market.	0.370138	0.63639	-0.185065	0.054148	0.309471	-0.044233
Maggi Masala adds a unique flavor to the dishes I prepare.	0.209387	0.715886	0.15311	0.195512	0.047977	0.118391
The current level of spiciness in Maggi Masala suits my preference.	0.163337	0.736268	0.157468	0.145146	0.118738	-0.037081
The aroma of Maggi Masala enhances its taste appeal.	-0.010201	0.614485	0.378722	0.285547	-0.011484	0.313296
I consider Maggi Masala an essential part of my cooking routine because of its flavor.	0.484479	0.5554	0.010665	-0.035779	0.318136	0.250622
I find the flavor of Maggi Masala nostalgic or comforting?	0.372433	0.351534	0.560172	-0.043496	0.206652	0.152841
I would recommend Maggi Masala to friends and family.	0.449781	0.308688	0.487771	0.026805	0.268148	0.131311
I am loyal to Maggi Masala and rarely switch to other spice blends.	0.568608	0.278131	0.177713	-0.047404	0.138169	0.443298
The flavor profile of Maggi Masala makes my meals more enjoyable.	0.542371	0.275501	0.196619	0.369811	0.042817	0.338476
I feel Maggi Masala caters to your regional taste preferences?	0.644215	0.241975	0.199715	0.225197	0.039419	0.19008
The packaging design of Maggi Masala is attractive and informative.	0.102393	0.171573	0.083357	0.216266	0.224535	0.730971
The portability of Maggi Masala packaging is convenient for me.	0.314728	0.03472	0.05984	0.390055	0.19697	0.615809
I would buy larger economy packs of Maggi Masala if available.	0.72837	0.201014	-0.025427	0.138678	0.216845	0.122667
I am satisfied with the quantity of Maggi Masala in individual noodle packets?	0.106534	0.164044	0.095295	0.129721	0.703215	0.114557
Discounts or bundle offers influence my decision to buy Maggi Masala.	0.325449	0.228557	-0.040468	0.540334	0.378238	0.06334
I find Maggi Masala to be affordable?	0.104927	0.237031	0.13104	0.736085	0.160593	0.201065
I think Maggi Masala offers good value for money compared to other spice mixes?	0.323814	0.142743	0.150069	0.702491	0.158858	0.239856
I associate Maggi Masala with positive memories and emotions which influences my buying behavior.	0.36313	0.137927	0.371435	0.400053	0.250393	0.261913
I consistently choose Maggi Masala over other brands due to its recognizable image.	0.648003	0.078665	0.307679	0.320873	0.195945	0.002435
I Would be willing to pay a higher price for a premium or enhanced flavor version of Maggi Masala?	0.618626	0.119122	0.242511	0.201564	0.276641	0.028958
The overall flavor of Maggi Masala justifies its popularity among consumers.	0.065338	0.194325	0.523049	0.514692	0.215194	0.129725
I am influenced by advertisements when purchasing Maggi Masala.	0.172958	0.068627	0.361755	0.301276	0.442374	0.241648
I trust the Maggi brand for delivering consistent flavor quality.	0.276079	0.202777	0.610436	0.257098	0.353095	0.017342
I feel that Maggi Masala's advertisements resonate well with my personal tastes.	0.400809	0.117566	0.327267	0.331528	0.4328	0.137354
Availability in local stores impact my decision to buy Maggi Masala?	0.087681	0.13402	0.110917	0.497448	0.551425	0.082749
I Would buy seasonal or limited-edition Maggi Masala flavors?	0.178713	0.176879	0.415409	0.269009	0.539375	0.020769
I am influenced by friends or colleagues who recommend Maggi Masala in recipes?	0.260034	0.106183	0.186453	0.216072	0.463248	0.372465
The nutritional information on Maggi Masala packaging influences my purchase.]	0.331012	0.001236	0.208072	0.051936	0.589728	0.261227

Factors Derived from Original Variables

Brand

'I am loyal to Maggi Masala and rarely switch to other spice blends.',

'The flavor profile of Maggi Masala makes my meals more enjoyable.',

'I feel Maggi Masala caters to your regional taste preferences? ',

'I would buy larger economy packs of Maggi Masala if available.',

'I consistently choose Maggi Masala over other brands due to its recognizable image.',

'I Would be willing to pay a higher price for a premium or enhanced flavor version of Maggi Masala? ',

Taste

The taste of Maggi Masala is perfectly balanced for my liking. ',

' I prefer Maggi Masala over other spice blends available in the market. ',

'Maggi Masala adds a unique flavor to the dishes I prepare.',

'The current level of spiciness in Maggi Masala suits my preference.',

'The aroma of Maggi Masala enhances its taste appeal.',

'I consider Maggi Masala an essential part of my cooking routine because of its flavor.',

Emotional Connect

'I find the flavor of Maggi Masala nostalgic or comforting? ',

'I would recommend Maggi Masala to friends and family.',

'I associate Maggi Masala with positive memories and emotions, which influences my buying behavior

'The overall flavor of Maggi Masala justifies its popularity among consumers.',

'I trust the Maggi brand for delivering consistent flavor quality.',

Affordability

'Discounts or bundle offers influence my decision to buy Maggi Masala.',

' I find Maggi Masala to be affordable? ',

'I think Maggi Masala offers good value for money compared to other spice mixes?',

Availability

'I am satisfied with the quantity of Maggi Masala in individual noodle packets? ',

'Availability in local stores impact my decision to buy Maggi Masala?',

'I Would buy seasonal or limited-edition Maggi Masala flavors?',

'The nutritional information on Maggi Masala packaging influences my purchase.'],

Advertisement

'The packaging design of Maggi Masala is attractive and informative.',

'The portability of Maggi Masala packaging is convenient for me.',

'I am influenced by advertisements when purchasing Maggi Masala.',

'I feel that Maggi Masala's advertisements resonate well with my personal tastes.',

'I am influenced by friends or colleagues who recommend Maggi Masala in recipes? ',

*Now we will convert this loading matrix into factor scores

Regression Analysis

We will check the relationship between our Dependent variable (On a scale from 1 to 10, how likely are you to buy Maggi Masala again and recommend it to others? Using Factor scores generated with linear regression

Factor Score Overview:

Brand	Taste	Emotions	Affordabili	Availability	Advertisement
-3.01695	-1.65621	-0.98505	2.735168	-1.644144413	2.832852758
-1.02295	0.791075	-0.23378	0.893301	-1.026655517	0.967324891
0.54595	0.241251	1.321018	-0.4266	-0.910139898	0.680749768
0.246045	-0.75861	0.404302	0.084711	-0.86614978	-0.14590902
-0.11475	0.3391	1.306992	0.350841	-1.206850255	-0.175138836
0.20532	0.727285	-0.25605	0.606993	-0.887363417	1.023542362
-0.39298	-1.4182	1.951873	0.267722	-0.08978343	-0.542117904
-0.71764	0.579213	1.30016	1.214516	-1.368744635	-0.035141948
0.790428	-0.10264	0.250387	0.286839	0.107115831	0.136556383
0.153043	-0.24301	-0.19264	-0.36511	-0.132725722	-0.392450516
-0.1968	0.734691	0.107616	0.315351	0.724285815	0.364557845
-3.77243	-1.17269	-0.109	1.172641	0.395312085	0.405290162

Regression Analysis Output:

Factors	Estimate	Std. Error	Contribution %
Constant	-0.03089	0.05343	-
Brand	0.46739	0.05643	30%
Taste	0.25947	0.05497	17%
Emotional Connect	0.17333	0.05461	12%
Affordability	0.20257	0.05864	13%
Availability	0.24238	0.05563	16%
Advertisement	0.17416	0.05877	12%

Model Summary:
- **R-squared: 44.31%, Adjusted R-squared: 42.54%, p-value: 2.2e-16**

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Customer Segmentation on the basis of Taste and Brand

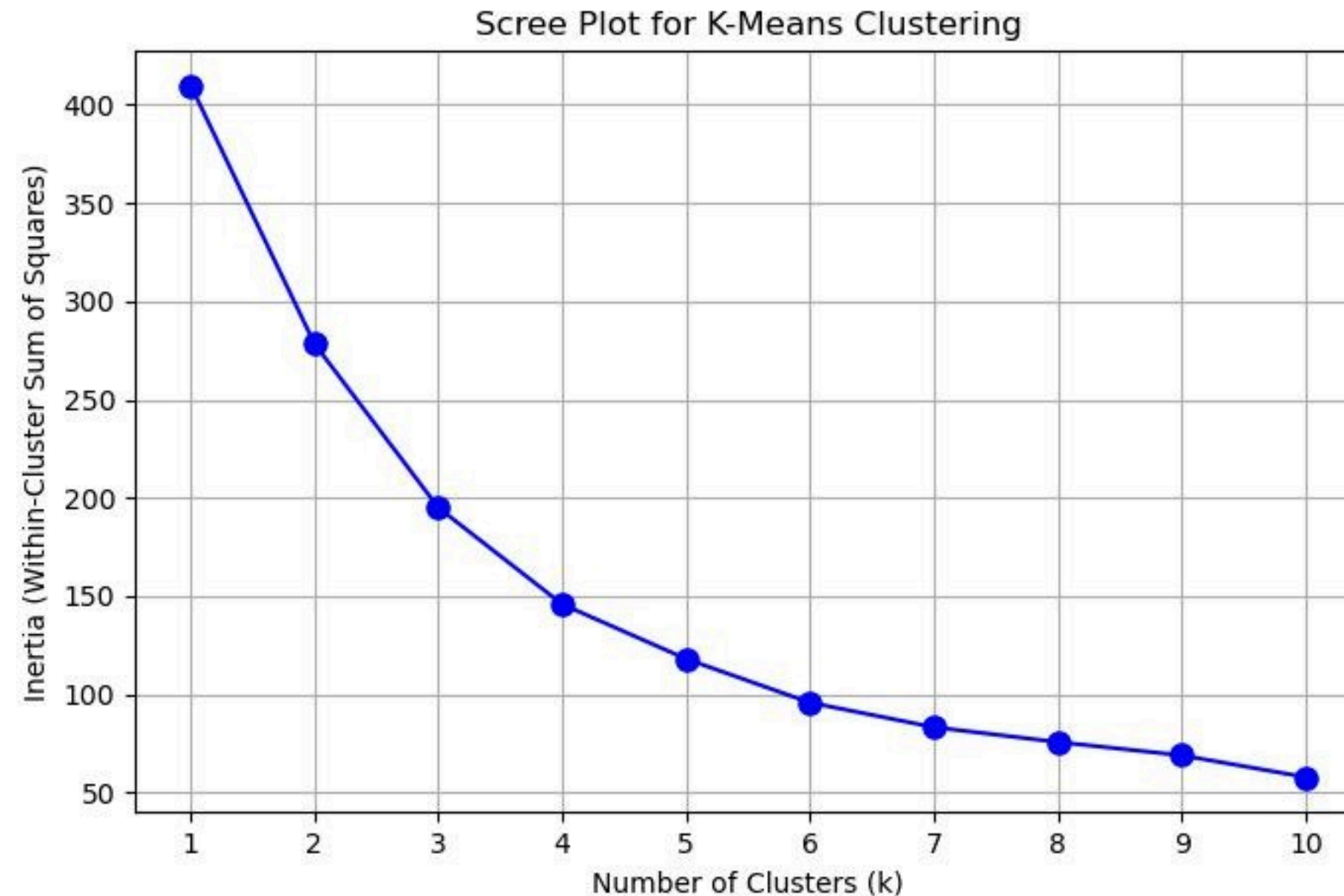Taste (30%) and Brand (17%) are the major contributors to Maggi Masala repurchase.

Customers will be classified into 4 clusters based on these factors.

Clustering will be performed using Taste and Brand scores.

The number of clusters will be determined using within-cluster sum of squares (WCSS).
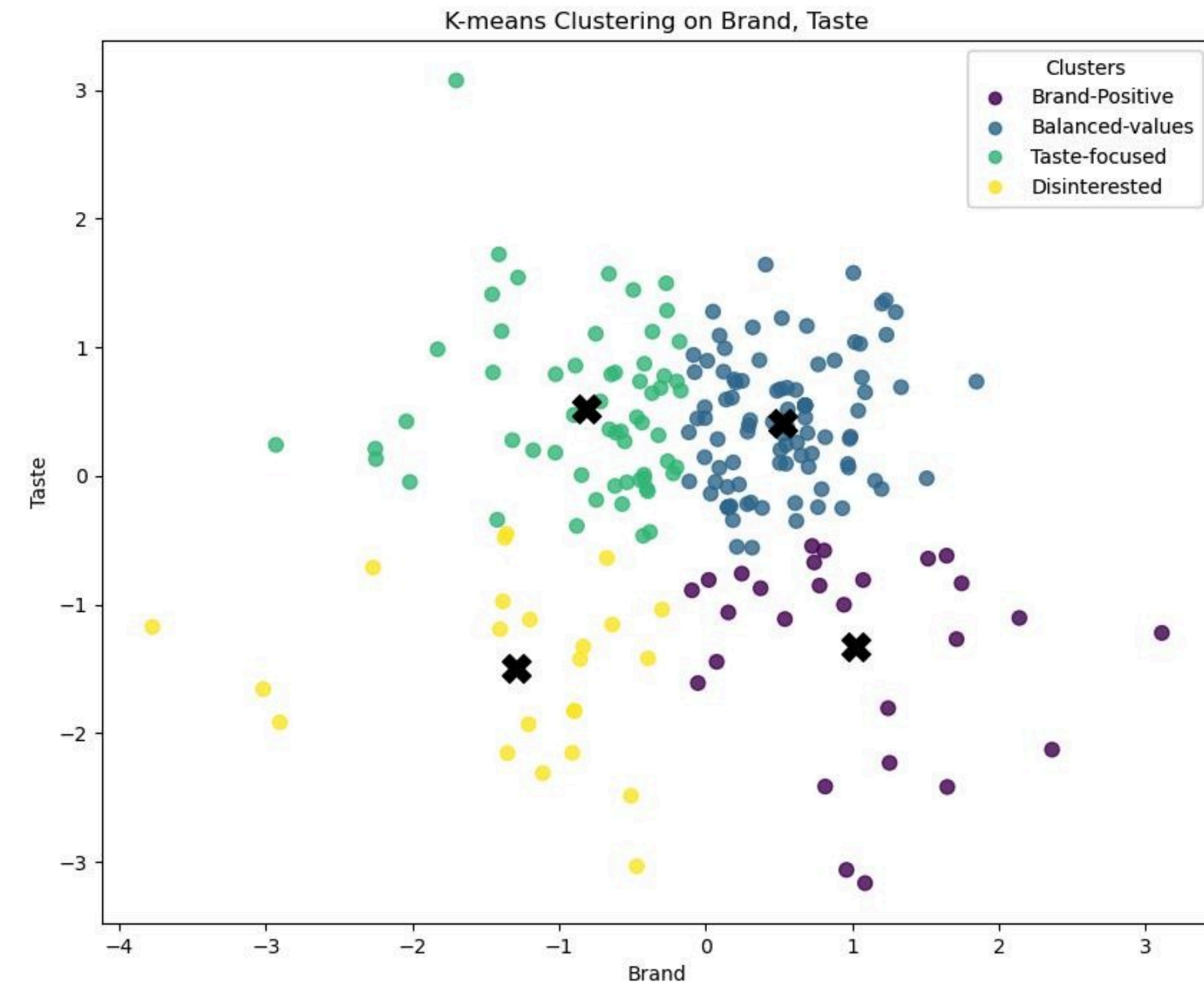
K-means clustering will be applied, followed by visualization for consumer insights.

Customer Segmentation on the basis of Taste and Brand

Scree Plot for K-Means Clustering

- Elbow plot shows Inertia does not changes abruptly after k=4.
- So we will select 4 clusters in k-means clustering.
- This shows us that the clusters have lower variances within the clusters that could be formed

Customer Segmentation on the basis of Taste and Brand

K-means Clustering on Brand, Taste

- After applying k-means clustering we can clearly classify our data into 4 major clusters.
- We can name these clusters as Brand-Positive,Balanced-valued,Taste-focused and disinterested.
- Majority of Respondents(47%)are balanced valued customers.
- 11% respondents are disinterested in Maggi masala 's taste or brand reputation.
- Overall, Taste-innovations ,Brand awareness and targeted marketing can convert customers effectively.

Conclusion

- We have successfully reduced 29 variables into 6 factors that contributes in repurchasing the Maggi Masala.
- Segmented customers into 4 clusters on the basis of Taste and Brand
- Using this comprehensive analysis stakeholders can Improve their Sales strategy and Branding strategy for repositioning Maggi Masala as a major spice mix brand in a very competitive market.

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Thank you

For your attention