

Toy Horse Conjoint Experiment

Team 5

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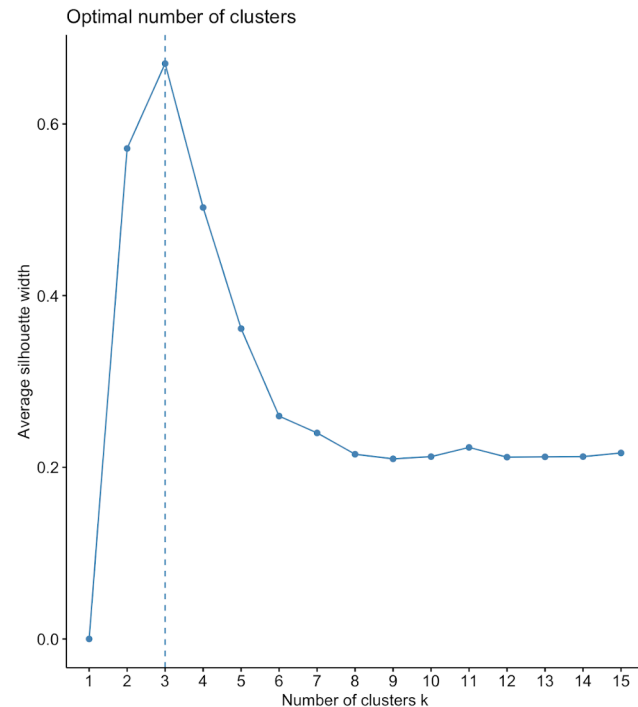
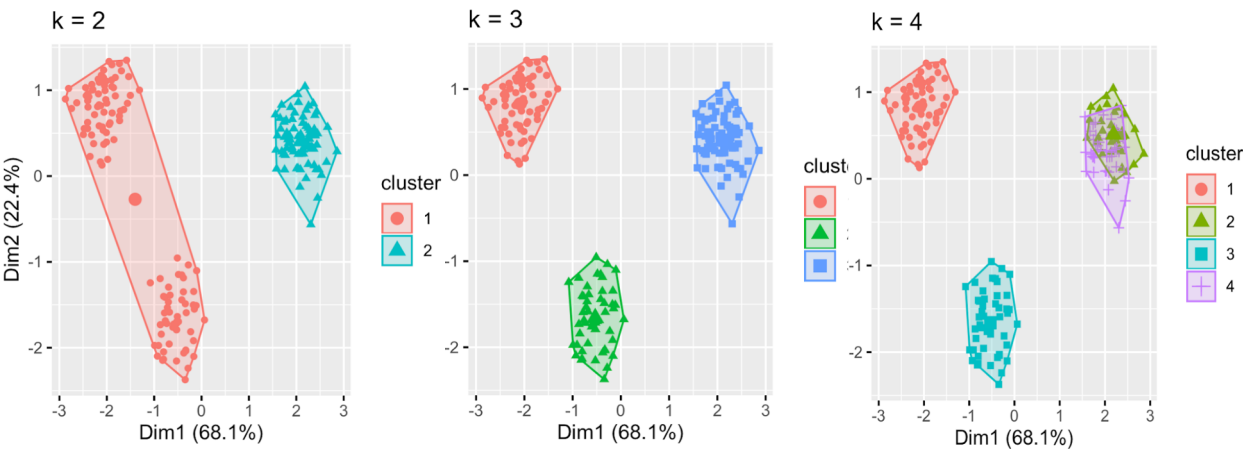


Executive Summary

- Cluster Analysis
 - Analyzing Cluster Schemes - 3 segments
 - Ideal Profile: 4, 14 & 16
- Priori Segmentation
 - Segmentation Profile: Gender & Age (4 groups)
 - Ideal Profile: 4, 8 & 16
- Market Simulation
 - Market Share Analysis of existing Profiles 5, 7 & 13
 - Profit Analysis : Most Profitable Profiles
 - Most Profitable Scenario:
 - 1st year: 12
 - After competitor responses: 2+16



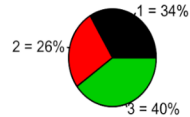
Cluster Analysis: Analyzing Numbers Of Clusters



The optimal number of clusters to use on data is 3.



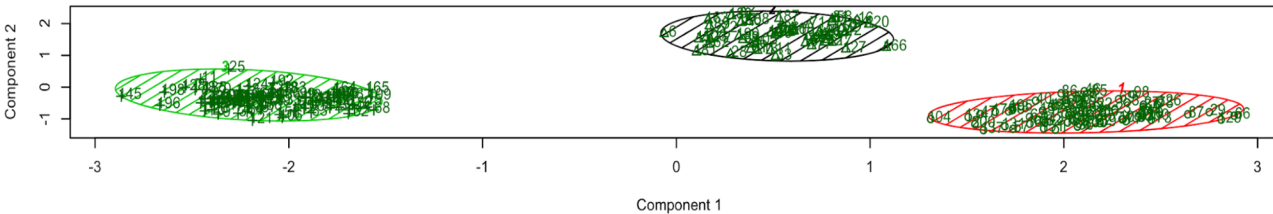
Cluster Analysis: Clustering with 3 different Segments



Segment 1 → Profile 16

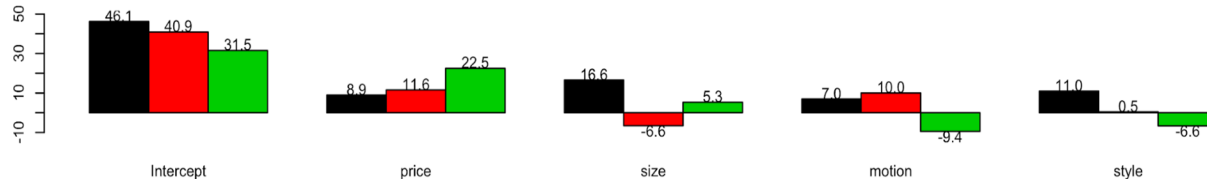
\$119.99, 26 inches,
Rocking, Glamour

CLUSPLOT(toClust)



These two components explain 90.51 % of the point variability.

Cluster Means



Segment 2 → Profile 14

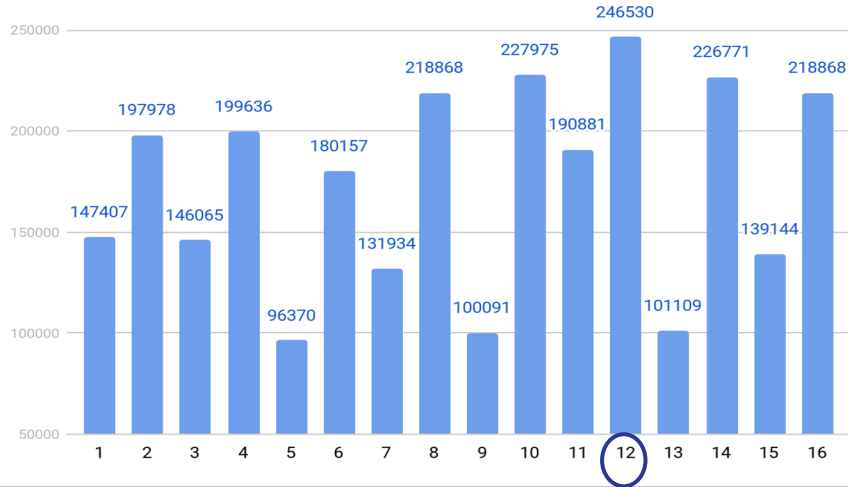
\$119.99, 18 inches,
Rocking, Glamour

Segment 3 → Profile 4

\$119.99, 26 inches,
Bouncing, Racing

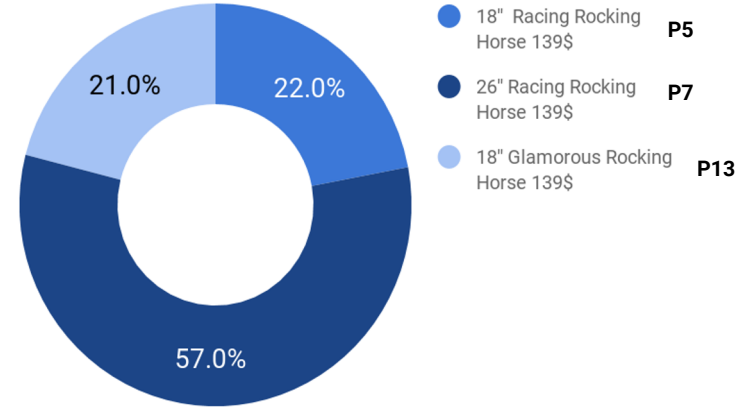
Market Simulation : Each Product Profitability & Firm Overall Profitability

Profitability of Each Product



P12 is of best profitability, which is \$246,530.

Overall Market Share of Firm



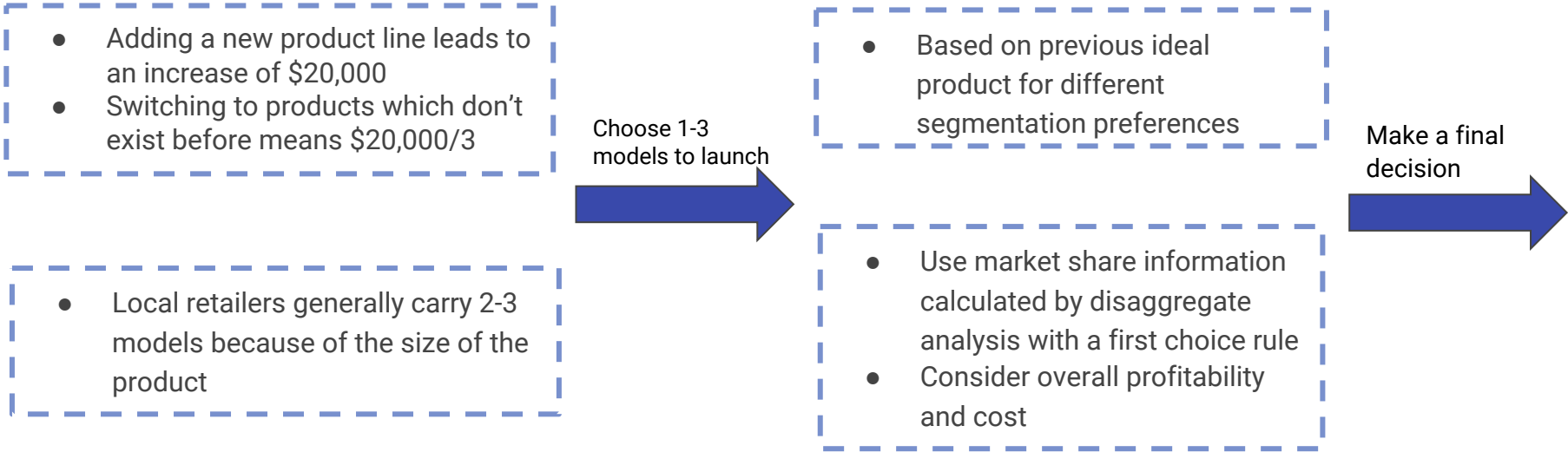
P7 accounts for a biggest percentage of the market share of 57.0%. While P13 gets 21.0% and P5 gets 22.0%.

Profitability of the firm will be: $4000 \times 22\% \times \$78.992 + 4000 \times 21\% \times \$78.992 = \$135,866$

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Market Simulation : Reasons for choosing specific scenarios



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Market Simulation : Market Share and Profitability Analysis of Different Scenarios

	P4	P5	P7	P8	P12	P13	P14	P16	Net Profit
		22%	57%			21%			\$135,866
2			8%		92%				\$219,684
3			0.5%					99.5%	\$192,022
4					43%			57%	\$187,276
5	35.5%			18%				46.5%	\$157,008
6	40%						25%	35%	\$167,168

Since competitor's market share shrinks from 57% to 8%, therefore competitor will decrease the price from \$139.99 to \$119.99(from P7 to P8), then we need to calculate again the market share based on competitor of P8

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Market Simulation : Market Share and Profitability Analysis of Different Scenarios

	P2	P8	P12	P16	Net Profit
1	33.5%	66.5%			\$73,823
2		53.5%	46.5%		\$124,605
3		50.5%		49.5%	\$82,218
4	23%	40.5%	36.5%		\$120,135
5	32.5%	25.5%		42%	\$136,544
6		28.5%	27.5%	44%	\$123,811

As the competitor changes from P7 to P8, what we react to the response is to construct several new scenarios and calculate the market share.
The combination of launching P2+P16 can get the highest profit.

Year 1:

Launch **P12** (26" Bouncing Glamour \$119.99) as competitor launch P7

Annual Profit: **\$219,684**

After Competitor changes:

Launch **P2**(18" Bouncing Racing \$119.99)+**P16**(26" Rocking Glamour \$119.99) as competitor launch P8

Annual Profit: **\$136,544**

