Pacmann

Optimizing Product Features and Pricing: A Conjoint Analysis

Pacmann's Quest for the Ideal Product Combination

Introduction

Finding out what users need is one of many challenging aspects when launching a product. If they do not need your product, they will not buy it. Furthermore, asking them what features they like does not necessarily represent their willingness to buy, e.g. asking which SSD to buy: 128 GB, 256 GB, 512 GB, most likely many will choose 512 GB (because of more storage they get). But, if we give users some hard options to choose, they will think which one has the most benefit to them. So, here comes the **conjoint analysis.**

Pacmann performs a choice-based conjoint analysis to find out which feature should Pacmann include in their new Product that will increase the buying potential.

Feature

There are several features that Pacmann test for its new product:

- **Daftar Skill:** Create Analytics Dashboard, Create Machine Learning Model, Deploy Machine Learning Model, Design AB Test Experimentation, Perform Customer Lifetime Analysis, Perform Churn Analytics, Perform Credit Scoring Analytics, Perform Customer Segmentation, Perform Price Optimization, and Designing Data Pipeline

- **Bentuk Program:** Tutorial based and Mentoring based

- **Harga Program:** Rp 250.000,0, Rp 300.000,0, Rp 350.000,0, Rp 400.000,0, Rp 450.000,0, Rp 500.000,0, and Rp 550.000,0

Conjoint Survey Overview

The survey consists of 12 questions with 10 main questions, like:

1. Produk manakah yang akan anda beli? (Anda bisa memilih membeli (klik) lebih dari 1 pilihan) *

A	B	C
SKILL	**SKILL**	**SKILL**
Create Analytics Dashboard	Perform Customer Segmentation	Design AB Test Experimentation
BENTUK PROGRAM	**BENTUK PROGRAM**	**BENTUK PROGRAM**
Tutorial Based	Mentoring Based	Mentoring Based
HARGA PROGRAM	**HARGA PROGRAM**	**HARGA PROGRAM**
Rp 500.000,0	Rp 350.000,0	Rp 300.000,0

- [ ] A
- [ ] B
- [ ] C
- [ ] D. Tidak memilih semua product

Survey Results

D	E	F	G	H	I	J	K
Anda bisa	Anda bisa	Anda bisa	Anda bisa	Anda bisa	Anda bisa	Anda bisa	Anda bisa
A	A	A	A	B	A	C	A
C, D. Tida	C	C	A, B	A, B	A	A	A
D. Tidak n	A, C	A	A	C	D. Tidak n	D. Tidak n	D. Tidak n
D. Tidak n	A, C	A	A	C	D. Tidak n	D. Tidak n	D. Tidak n
D. Tidak n	C	A	A	D. Tidak n	D. Tidak n	D. Tidak n	D. Tidak n
D. Tidak n	A, C	D. Tidak n	A	B	D. Tidak n	D. Tidak n	D. Tidak n
A	C	D. Tidak n	C	B	C	C	D. Tidak n
D. Tidak n	A, C	D. Tidak n	A	B	D. Tidak n	C	A
A	B	C	B, C	A	B	A	B
D. Tidak n	A, B, C	A, B	A	B	D. Tidak n	C	A
D. Tidak n	A, C	A, B	A	B	D. Tidak n	C	A, C
B	D. Tidak n	C	D. Tidak n	D. Tidak n	A, C	D. Tidak n	D. Tidak n
A	A, B	A	A	A, B	A	D. Tidak n	A, C
D. Tidak n	C	A	A	C	D. Tidak n	B	D. Tidak n
D. Tidak n	D. Tidak n	D. Tidak n	D. Tidak n	C	D. Tidak n	D. Tidak n	D. Tidak n
B, D. Tida	A, D. Tida	A, D. Tida	A, D. Tida	C, D. Tida	A, D. Tida	B, D. Tida	B, D. Tida
D. Tidak n	A, C	A, B	A	B, C	D. Tidak n	B, C	A
D. Tidak n	C	D. Tidak n	D. Tidak n	D. Tidak n	D. Tidak n	D. Tidak n	D. Tidak n
B	D. Tidak n	C	D. Tidak n	D. Tidak n	C	D. Tidak n	D. Tidak n
D. Tidak n	C	A	A	D. Tidak n	D. Tidak n	D. Tidak n	D. Tidak n

VARIAN

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{1: {'A': ['Create Analytics Dashboard', 'Tutorial Based', '500.000'],
  'B': ['Perform Customer Segmentation', 'Mentoring Based', '350.000'],
  'C': ['Design AB Test Experimentation', 'Mentoring Based', '300.000'],
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  'B': ['Design Data Pipeline', 'Mentoring Based', '300.000'],
  'C': ['Perform Credit Scoring Analytics', 'Mentoring Based', '550.000'],
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  'C': ['Design Data Pipeline', 'Mentoring Based', '250.000'],
  'D': ['', '', '']},
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  'C': ['Perform Credit Scoring Analytics', 'Mentoring Based', '350.000'],
  'D': ['', '', '']},
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  'B': ['Perform Customer Lifetime Analysis', 'Tutorial Based', '300.000'],
  'C': ['Design AB Test Experimentation', 'Tutorial Based', '300.000'],
  'D': ['', '', '']},
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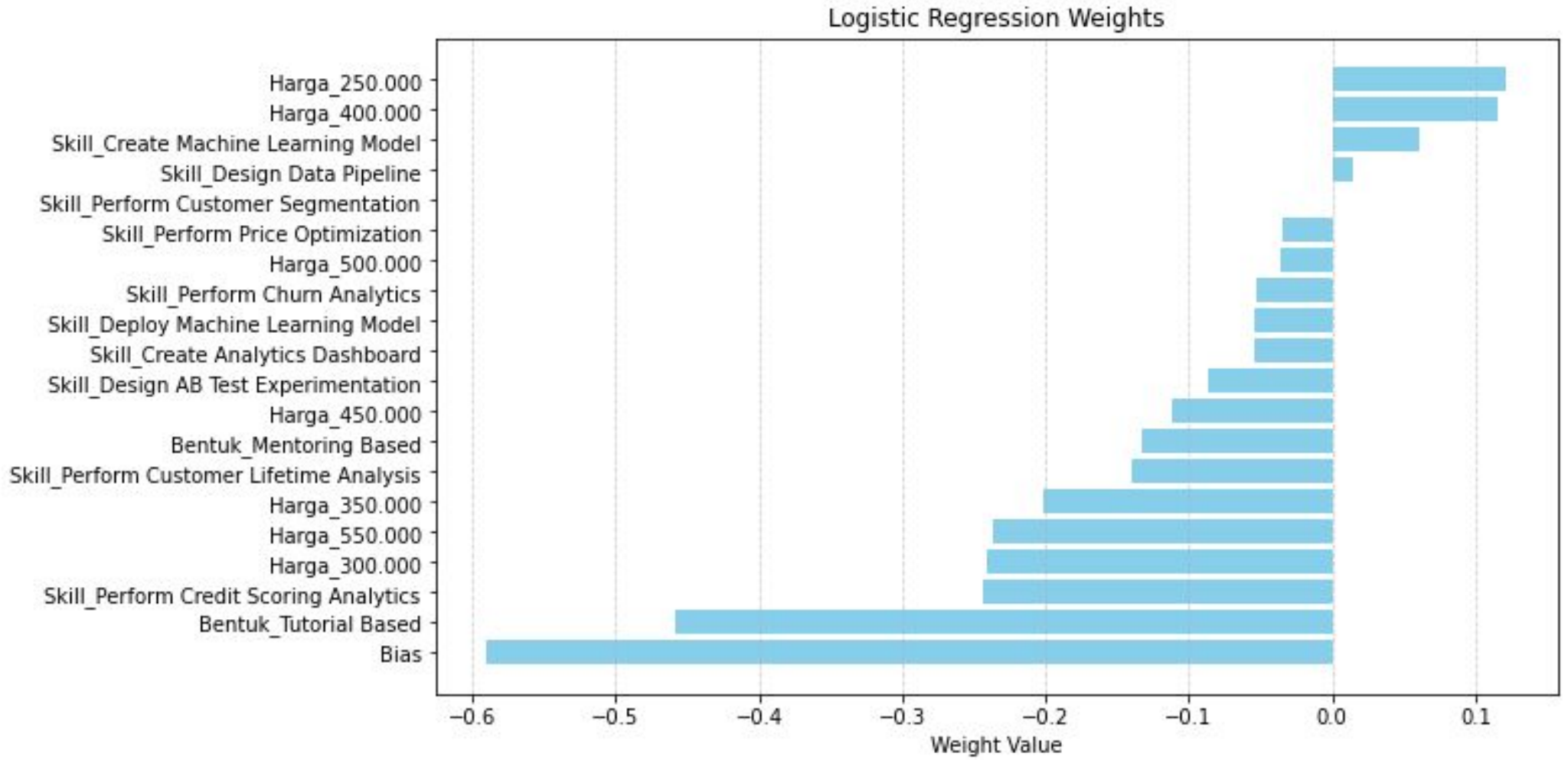
  'B': ['Perform Customer Segmentation', 'Mentoring Based', '300.000'],
  'C': ['Create Machine Learning Model', 'Mentoring Based', '300.000'],
  'D': ['', '', '']},
 7: {'A': ['Perform Customer Lifetime Analysis', 'Tutorial Based', '500.000'],
  'B': ['Design Data Pipeline', 'Mentoring Based', '550.000'],
  'C': ['Deploy Machine Learning Model', 'Tutorial Based', '350.000'],
  'D': ['', '', '']},
```

Logistic Regression Model & Weight

	Feature	Weight
13	Harga_250.000	0.121536
16	Harga_400.000	0.115708
2	Skill_Create Machine Learning Model	0.060692
5	Skill_Design Data Pipeline	0.014046
9	Skill_Perform Customer Segmentation	0.000513
10	Skill_Perform Price Optimization	-0.034794
18	Harga_500.000	-0.035532
6	Skill_Perform Churn Analytics	-0.052312
3	Skill_Deploy Machine Learning Model	-0.053968
1	Skill_Create Analytics Dashboard	-0.054814
4	Skill_Design AB Test Experimentation	-0.086483
17	Harga_450.000	-0.112023
11	Bentuk_Mentoring Based	-0.132432
8	Skill_Perform Customer Lifetime Analysis	-0.139993
15	Harga_350.000	-0.201979
19	Harga_550.000	-0.237220
14	Harga_300.000	-0.240674
7	Skill_Perform Credit Scoring Analytics	-0.243069
12	Bentuk_Tutorial Based	-0.457751
0	Bias	-0.590183

Logistic Regression Model & Weight



Recommendation

- **Daftar Skill:** Create Machine Learning Model, Design Data pipeline, Perform Customer Segmentation.
- **Bentuk Program:** Mentoring based
- **Harga Program:** Rp 250.000 or Rp 400.000

Reference

- **pacmann.io/cource/**
- **https://ariepratama.github.io/How-to-do-conjoint-analysis-in-python/**
- **https://medium.com/tentang-data/petunjuk-perancangan-dan-analisis-dalam-survei-conjoint-analysis-bag-1-78009233bd6a**
- **https://towardsdatascience.com/modeling-consumer-decisions-conjoint-analysis-f4eda531ecf6**

Thank You