

N i k e B y Y o u

D i m p l e B a p n a



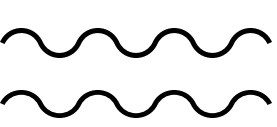
Problem Statement

Nike By You has missed sales forecast for the last 2 fiscal months

Assumptions:

- Sales were less than expected
- Nike only sells footwear under Nike By You
- Limiting analysis on sales through Nike.com only
- Non-Covid economic conditions





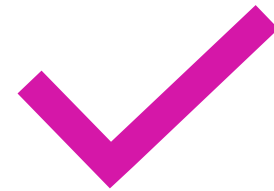
Analysis workflow



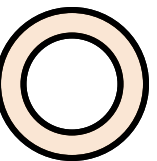
1. Problem diagnosis

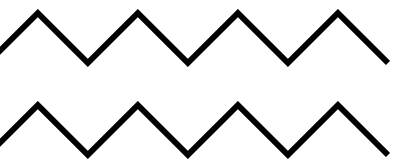


2. Plan of attack



3. Evaluating the
impact





Problem Diagnosis



Top-down
Analysis



Revenue
Analysis



Change
Analysis



Top-down Analysis

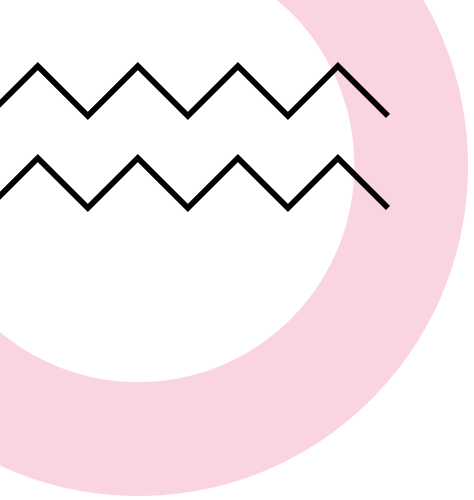
Hypotheses	Validate	if Hypotheses == True Possible directions to explore
Nike's overall sales has dropped	Nike's sales history, Historical forecasted revenue, Nike's historical market share	Nike's brand is affected, Economic downturn, Competitor gaining market share, etc.
Nike footwear sales has dropped	Nike's sales history, market share and forecasted sales for each business section such as footwear, clothing, accessories, gears, etc.	Customers do not want to buy Nike footwear, Competitors are gaining market share in footwear, etc.
Only Nike By You sales has dropped	Sales history and forecasted sales of Nike's footwear products	Customers prefer other products over Nike By You (Cannibalization), Similar product offered by competitors, marketing changes, Product changes, etc.



○ Revenue Analysis

Quantity		Price	
<ul style="list-style-type: none">• Repeat purchase• Churn-rate• Customer acquisition	<ul style="list-style-type: none">• Inventory out of stock• Cannibalization• New Products• Cross-selling	<ul style="list-style-type: none">• Improper product pricing• Competitor price war• Promotions	<ul style="list-style-type: none">• Customers buying lower priced products• Discounts
Validate			
<ul style="list-style-type: none">• Customer data• Sales history• Supplier and inventory data		<ul style="list-style-type: none">• Website clicks data• Assumptions made during forecast• Product metadata	





Change Analysis



Product

Product availability
Non-Nike By You
products
Delivery / Turnaround
time



Place

Website placement
Branding change
Customization
options



Price

Price change (drop
/ rise)
Pricing options
Competitor price
change



Promotion

Discounts and offers
Advertisement
platform
Customer messaging



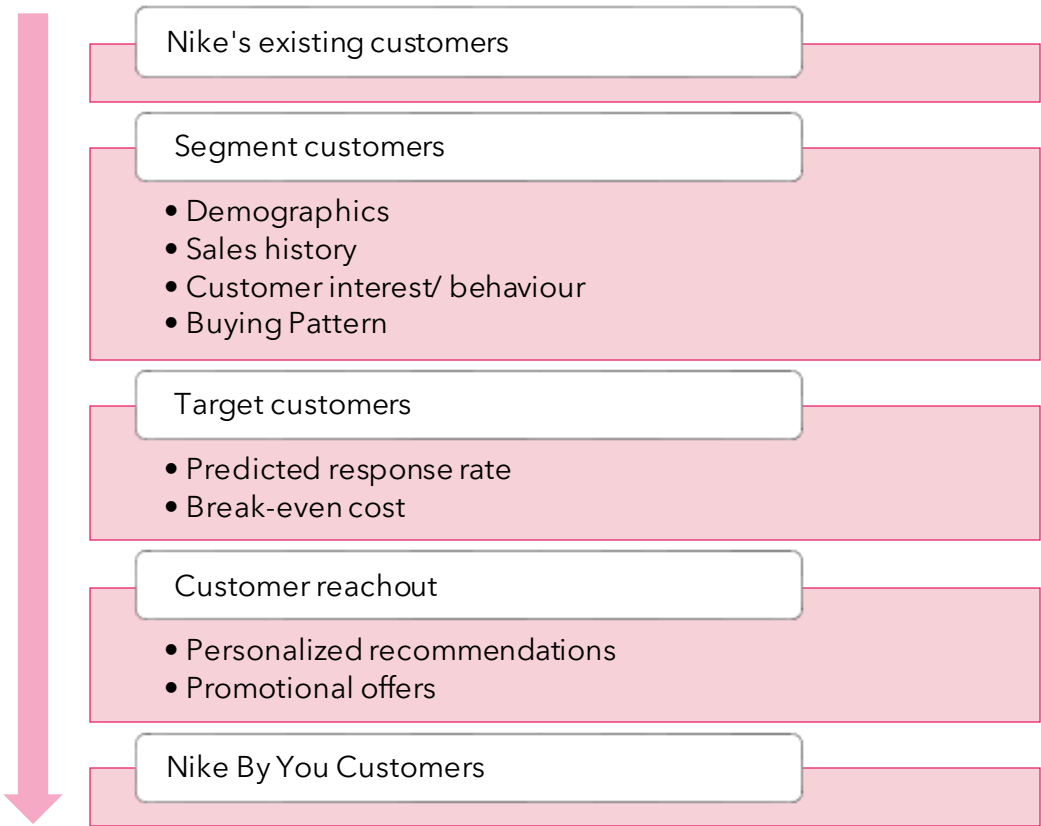


Root Cause

Existing Nike customers are not buying enough Nike By You products in the last 2 months.
(decline in cross-selling rate)



Plan of Attack

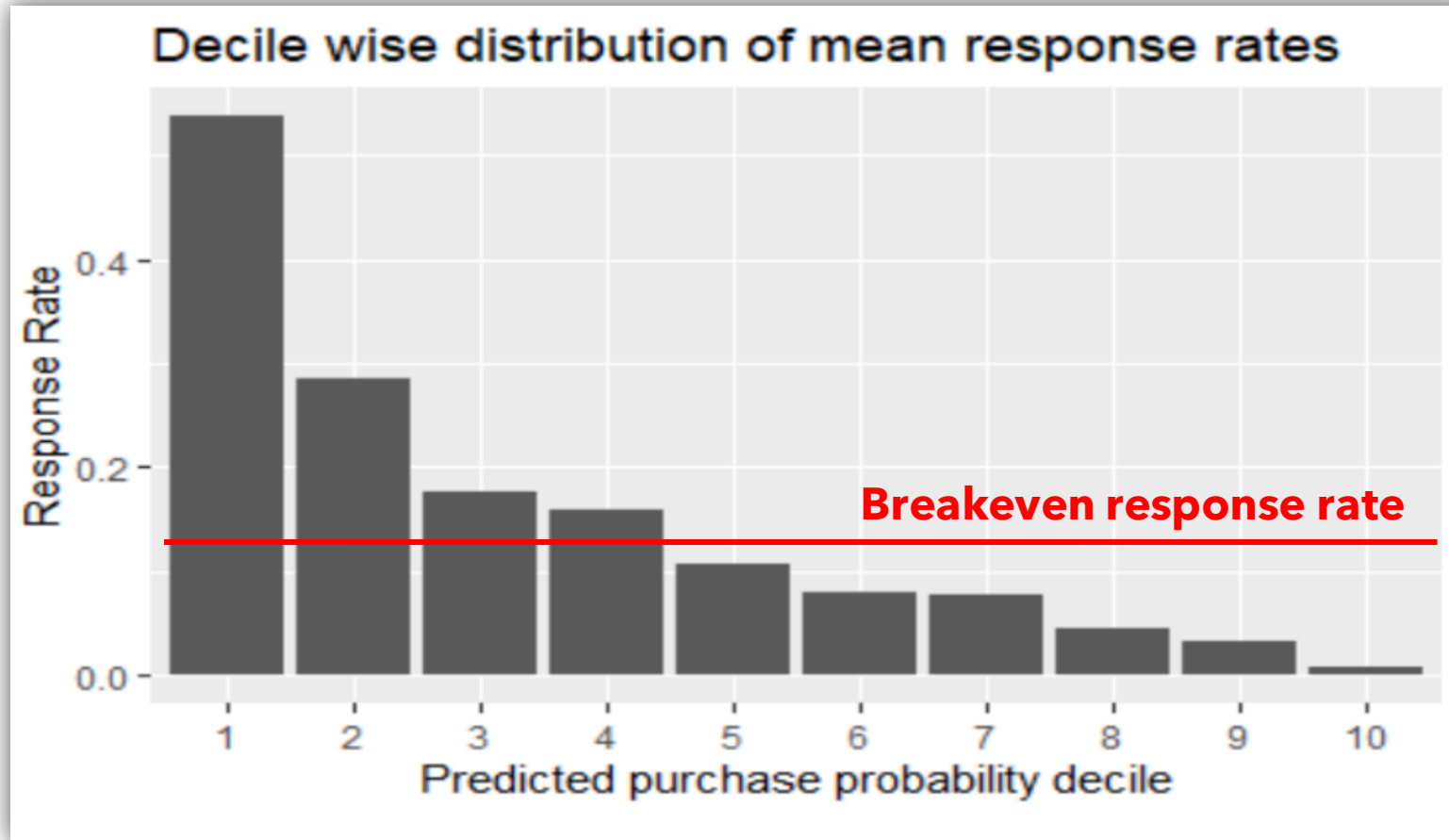


○ Required Data and Models

Data variables	<p>Customer Demographics: customer_type, age, gender, location.</p> <p>Customer Sales History: total_purchase_from_nike, no_of_orders, max_purchase, weeks_since_last_purchase, total_footwear_purchase, total_apparel_purchase, total_bags_purchase, total_accessories_purchase, buyer_nikebyyou, total_purchase_nikebyyou, no_of_orders_nikebyyou, max_purchase_nikebyyou.</p> <p>Customer Product Interest: new_release_buyer, limited_edition_buyer, sport_interest, nike_sub_brand_interest</p> <p>Customer Website Interaction Data: mins_on_nike, mins_on_footwear, mins_on_nikebyyou, clicks_on_customize, clicks_on_ad_nikebyyou, clicks_on_ad_nike</p>
Datasets	<ol style="list-style-type: none">1. Dataset for model training and validation (50-50 buyer response rate)2. Dataset for profit analysis (representative response rate)
Models / Techniques	Decile/Quintile analysis, Logistic Regression, Neural Networks, Decision trees, Market Basket Analysis, Customer Lifetime Value



○ Targeting Customers



Target customer's probability of response > cost of offer / profit on sale



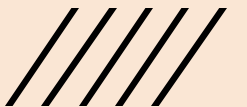
Personalizing recommendations

Existing Nike By You customers purchase history

Market Basket Analysis (NPTB recommendation Model)

Recommend the right Nike By You product to the customer

Better chance of customer responding



○ Evaluating the impact – Baseline LTV

Assumptions	
Avg Revenue per buyer	\$150
Marketing cost (% of revenue)	10%
Product cost (% of revenue)	40%
Monthly revenue growth	2.0%
Discount rate	1%
Monthly purchase rate	15%

LTV	Start of LTV calc.	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
Avg. Revenue (per buying customer)	\$0.00	\$150	\$153	\$156	\$159	\$162	\$165
Marketing cost	\$0.00	\$15.00	\$15.30	\$15.61	\$15.92	\$16.24	\$16.56
Product cost	\$0.00	\$60.00	\$61.20	\$62.42	\$63.67	\$64.95	\$66.24
Profit	\$0.00	\$75.00	\$76.50	\$78.03	\$79.59	\$81.18	\$82.81
Prob. of purchasing within period	N/A	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
Expected profit per customer	\$0.00	\$11.25	\$11.48	\$11.70	\$11.94	\$12.18	\$12.42
Present value of expected profit	\$0.00	\$11.19	\$11.31	\$11.42	\$11.53	\$11.64	\$11.76
Cumulative LTV	\$0.00	\$11.19	\$22.50	\$33.92	\$45.45	\$57.09	\$68.85



○ Evaluating the impact – New LTV

Assumptions	
Avg Revenue per buyer	\$150
Marketing cost (% of revenue)	10%
Product cost (% of revenue)	40%
Monthly revenue growth	3.0%
Discount rate	1%
Monthly purchase rate	20%

LTV	Start of LTV calc.	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
Avg. Revenue (per buying customer)	\$0.00	\$150	\$154	\$159	\$164	\$169	\$174
Marketing cost	\$0.00	\$15.00	\$15.45	\$15.91	\$16.39	\$16.88	\$17.39
Product cost	\$0.00	\$60.00	\$61.80	\$63.65	\$65.56	\$67.53	\$69.56
Profit	\$0.00	\$75.00	\$77.25	\$79.57	\$81.95	\$84.41	\$86.95
Prob. of purchasing within period	N/A	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
Expected profit per customer	\$0.00	\$15.00	\$15.45	\$15.91	\$16.39	\$16.88	\$17.39
Present value of expected profit	\$0.00	\$14.93	\$15.22	\$15.52	\$15.83	\$16.14	\$16.46
Cumulative LTV	\$0.00	\$14.93	\$30.15	\$45.67	\$61.50	\$77.64	\$94.11

LTV increase per customer \$25.26





**THANK
YOU**

