

# Health Care Product Review Analysis

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# Agenda



01

Business Problem Statement



What we are trying to achieve?  
Why is it important?

02

Resolution



How we can resolve the problem using business problem to outcome framework?

03

Data Science Driven Approach



How data science and advanced analytics contribute?

04

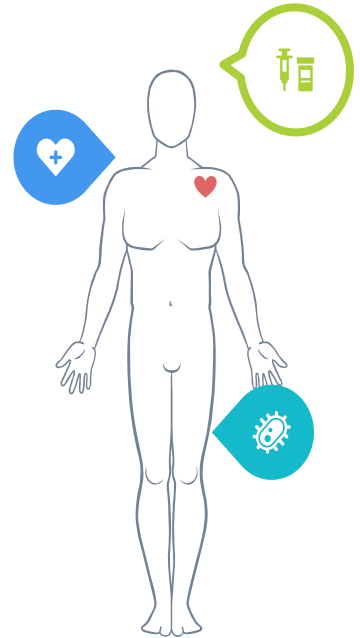
Recommendations



Where the road lies ahead?

# Nothing is Small in Personal Care

Complete understanding of customer feedback and review on our products is as important as R&D, Marketing and Sales.



# Customers are the **No. 1** Priority.

Product feedbacks can help:

- Maintain Positive Brand Image
- Increase Conversion and Sales
- Drive Product Improvement



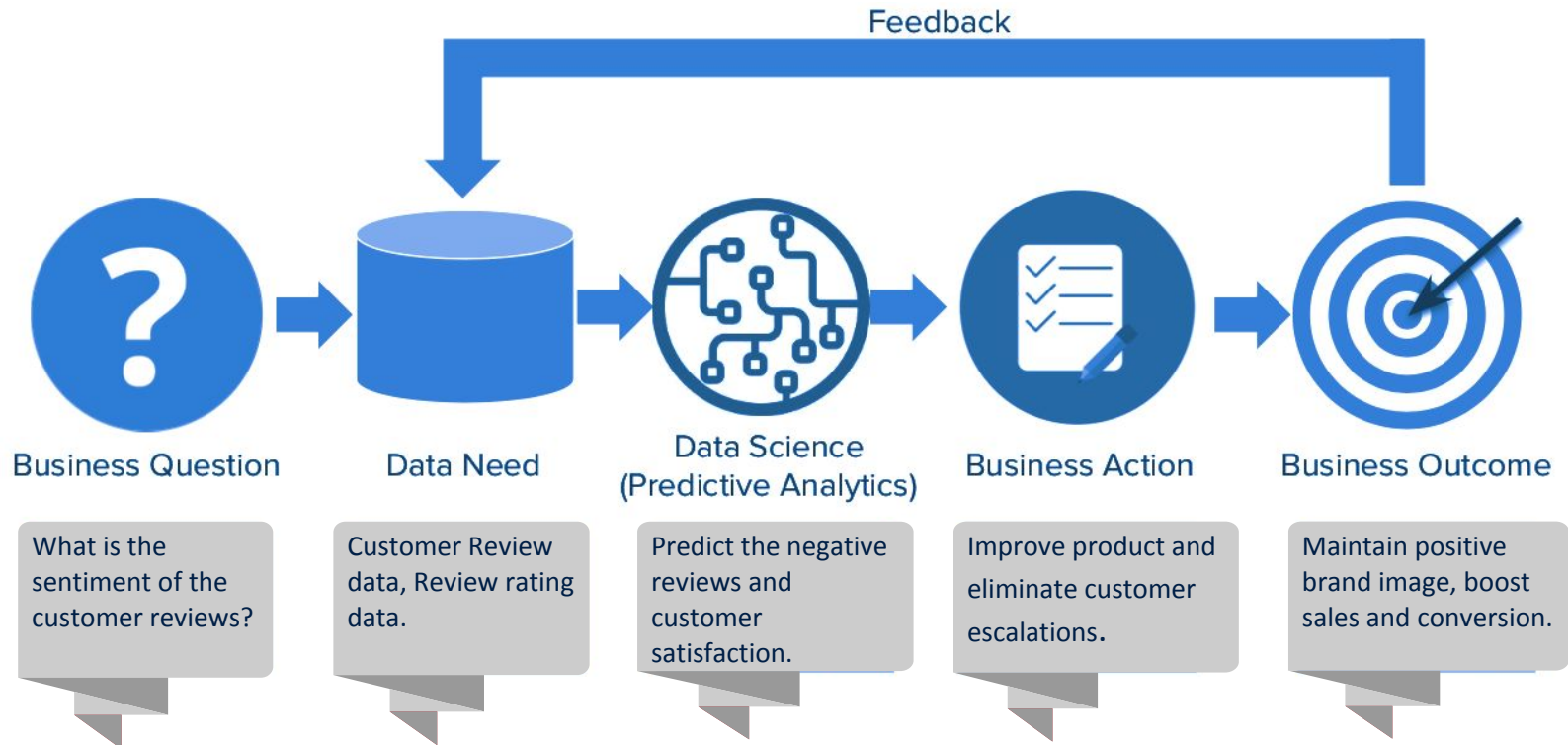
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**How can we make good  
use of countless  
customer reviews  
generate useful  
insights from them?**



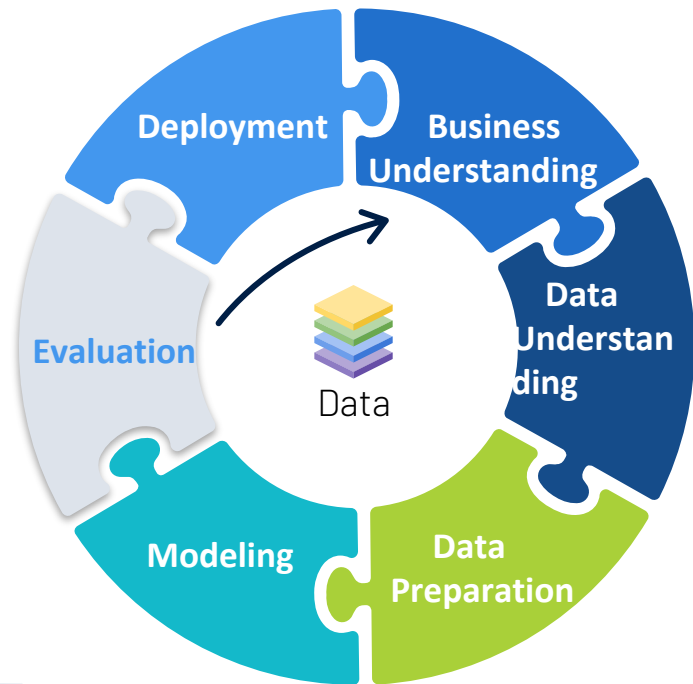
**Business  
Problem  
Statement**

# Business Question to Outcome Framework





# Applied Data Science Process Model



- ▶ **Business Understanding**  
Determine objective, situation, goal and plan.
- ▶ **Data Understanding**  
Collect, describe, explore and verify data.
- ▶ **Data Preparation**  
Select, clean, construct, integrate and format data (text vectorization for review data) and ensure reproducibility.
- ▶ **Modeling**  
Binary classification model to predict review sentiment.
- ▶ **Evaluation**  
Use classification model metrics to review model result and determine next steps .
- ▶ **Deployment**  
Plan deployment, monitoring and maintenance of the data science approach.

# Use Cases



## Follow up with Unhappy Customers

Email or callback follow up with unhappy customers.  
Listen to their needs and improve their satisfaction rate.



## Incentivize Happy Customers

Provide discount and encourage them to stay and buy more.  
Develop brand loyalty among happy customers.



## Drive Continuous Product Improvement

Collect frequently mentioned key words in negative reviews. Leverage customer feedback to improve product design.

Keyword Analysis Table

Keyword	Avg. rating	Sentiment	N° Reviews	N° Occurrences	Growth
scam	1.00	<div><div></div></div>	12	15	>0
advertise	1.12	<div><div></div></div>	25	27	>0
false advertising	1.12	<div><div></div></div>	57	62	▼1
advertising	1.14	<div><div></div></div>	84	103	▼2
situations	1.14	<div><div></div></div>	14	14	▲1
downloading	1.17	<div><div></div></div>	12	12	▼1
based	1.18	<div><div></div></div>	11	12	▼1
false	1.20	<div><div></div></div>	74	92	▼3
advertisements	1.25	<div><div></div></div>	20	22	▲2
click	1.25	<div><div></div></div>	12	12	▼1
actual game	1.27	<div><div></div></div>	15	15	▼1
rip	1.27	<div><div></div></div>	15	17	▲1



# Thanks!

**Any questions?**

