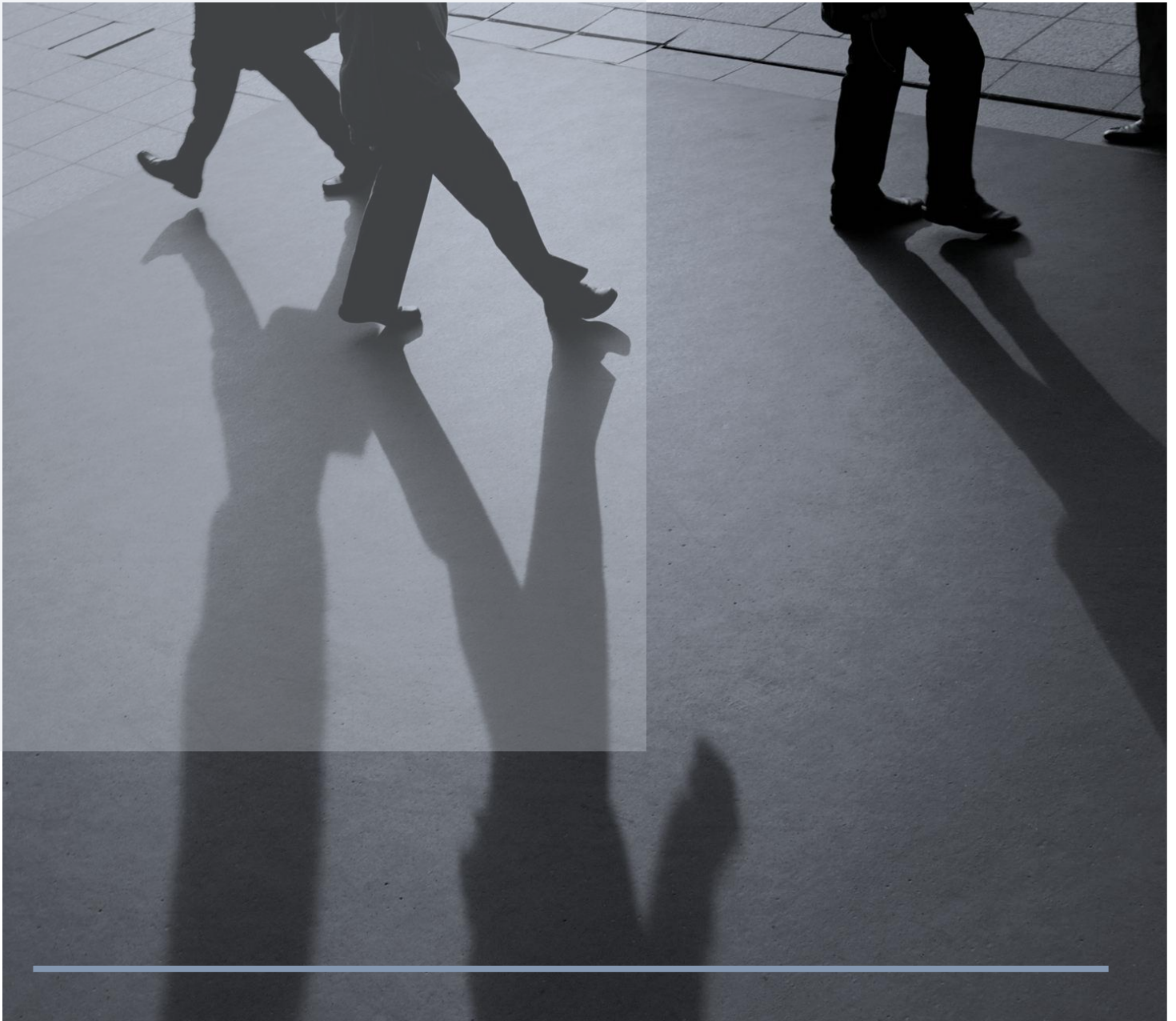# QUESTION FORMULATION

RONAK SINGH

QUESTION FORMULATION

1) User Demographics:

What is your age group? (Under 18, 18–25, 26–35, 36–50, 50+)
What is your gender?
Where are you located?

	Age	No.of Particapants
2018-19	25-29	10.2%
	20-24	14.5%
	15-19	31%
	10-14	63%
	5-9	53%
Male / Female	47%	42%

	Age	No.of Particapants
2024	25-29	10%
	20-24	15%
	15-19	25%
	10-14	35%
	5-9	30%
Male / Female	56%	43%

▦ **Projection:** If trends continue, female participation is expected to drop to **32% by 2030**.

📊 **Muscle Strengthening:** 12% fewer women do strength training compared to men.

2) Sports Preferences:

Rank	Sport	Estimated Fans (2018)	Estimated Fans (2024)	Growth Trend
1	Cricket	124.2 million	612 million	▦ Significant Increase
2	Football	85 million	305 million	▦ Significant Increase
3	Kabaddi	28.5 million	208 million	▦ Significant Increase
4	Wrestling (WWE)	26.5 million	163 million	▦ Significant Increase
5	Hockey	5.8 million	154 million	▦ Significant Increase
6	Badminton	11.5 million	145 million	▦ Significant Increase
7	Athletics	9.4 million	126 million	▦ Significant Increase
8	Volleyball	7.6 million	Data not available	▦ Likely Increase
9	Boxing	8.7 million	Data not available	▦ Likely Increase

Rank	Sport	Estimated Fans (2018)	Estimated Fans (2024)	Growth Trend
10	Table Tennis	4.1 million	Data not available	⊞ Likely Increase

The 2024 figures are sourced from recent reports. (khelnow.com, crosstalkindia.com)

How often do you engage in sports or physical activities per week?

3) Pain Points & Motivation

What is your biggest challenge in improving sports performance?
Would you use an app that gives you real-time feedback and performance coaching

4) Technology use

Do you currently use any fitness/sports apps? (Yes/No)
How important is AI-driven feedback to you in a sports coach app?

5) Purchase Intent

Would you consider paying for a personalized AI sports coaching app?
What pricing model would you prefer? (One-time purchase, monthly subscription, freemium)

DATA COLLECTION

1. Collect a diverse dataset from different age groups, regions, and fitness/sports levels.

DATA ANALYSIS

1) Clean and preprocess the data (using Excel, Python, or R).
2) Use segmentation variables like age, sports interest, tech-savviness, and price sensitivity.

SEGMENTATION TECHNIQUES

1) K-Means Clustering – for numeric data like frequency of workouts, age, willingness to pay.
2) Hierarchical Clustering – if you have a smaller dataset.
3) Decision Trees – to understand which factors influence app adoption.

VISUALIZATION

1) Tableau or Power BI for dashboards.
2) Seaborn / Matplotlib (Python) for histograms, cluster plots, pie charts.

SEGMENT PROFILES (FINAL OUTCOME)

Create 3–5 clear customer personas:

Example:

- Fitness Freaks: Aged 18–30, work out daily, willing to pay for premium features.

- Casual Players: Aged 30–45, engage in sports 1–2 times a week, price-sensitive.

- Tech-savvy Teens: Aged 15–20, very active online, prefer gamified and AI-driven coaching.