



How Can a Wellness Technology Company Play It Smart?

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Problem

- Understanding the trends and behaviors associated with smart device usage.
- By analyzing these trends, we can identify potential growth opportunities and tailor its marketing strategies accordingly.



Insights

- Provide an understanding of the most commonly used features or metrics tracked by users, which can inform product development or enhancement.
- Offer a clearer picture of user habits and preferences, which can be leveraged for targeted marketing campaigns.
- Identify gaps or unmet needs in the current market that Bellabeat can capitalize on.



Data Preparation

- Multiple CSV files
- First-party data
- We'll inspect the data for missing values, outliers, and check for consistency across the different files
- Once we understand the structure and quality of the data, we'll ascertain how it can help us identify trends in smart device usage



The data we will use

- dailyActivity_merged.csv
- dailyCalories_merged.csv
- dailyIntensities_merged.csv
- dailySteps_merged.csv



Data processing

- Check the missing values (NA)
- Remove the duplicated rows
- Check the format consistency



Data analysis

- Aggregating and joining the data for a comprehensive view. (SQL)
- Organizing the data by user ID and date. (SQL)
- Performing calculations to understand user behavior. (Python)
- Identifying trends and relationships. (Python)



Insights gain from data

DailyCalories has a strong **positive correlation** with **VeryActiveMinutes** (0.616) and **DailySteps** (0.592), meaning **the more active you are or the more steps you take, the more calories you burn**.

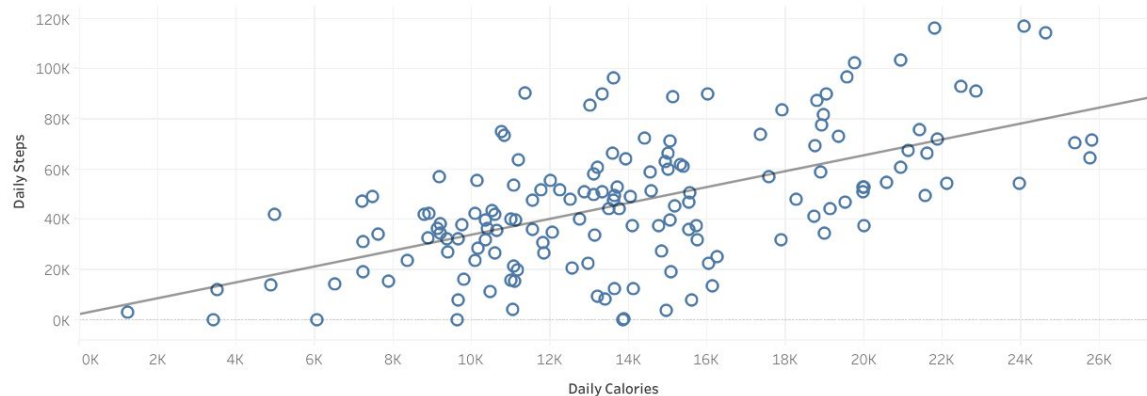
DailySteps also has a strong **positive correlation** with **VeryActiveMinutes** (0.667), implying that **more vigorous activity is associated with more steps**.

SedentaryMinutes has a **negative correlation** with **LightlyActiveMinutes** (-0.437) and **DailySteps** (-0.327), indicating that **the more sedentary you are, the fewer steps you tend to take and the less lightly active you are**.

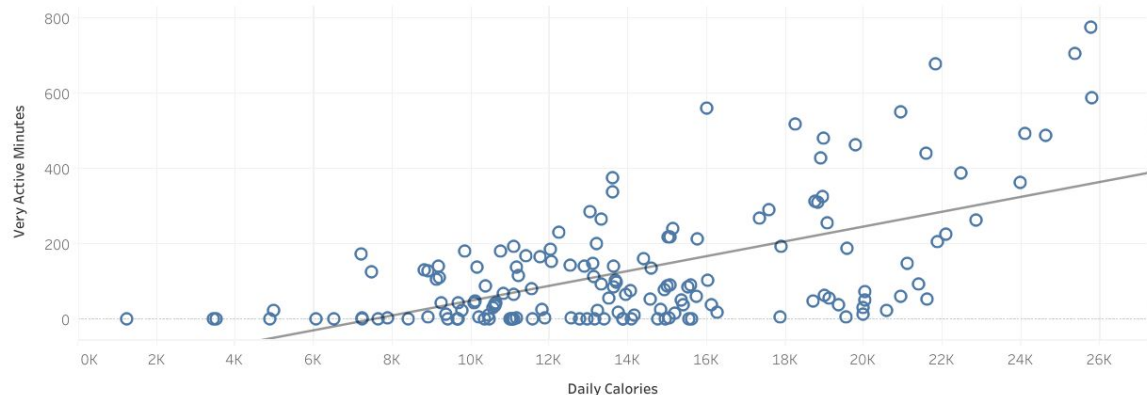
Data Viz

Insight: There's a strong correlation between VeryActiveMinutes, DailySteps, and DailyCalories. This means **users who are very active tend to burn more calories and take more steps.**

Calories Vs Steps



Calories Vs VeryActiveMinutes





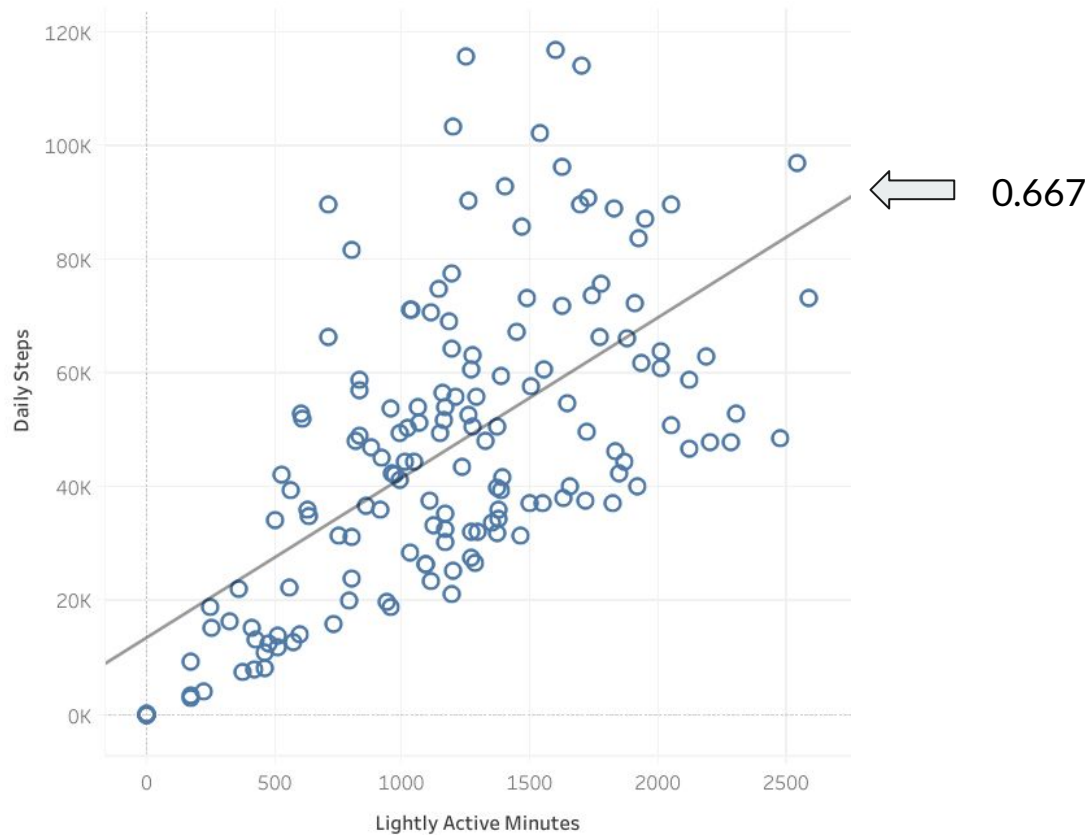
Recommendation

Introduce features or challenges in its app that encourage users to increase their active minutes, which in turn would lead to more steps and higher calorie burn. This can be in the form of daily or weekly challenges, rewards for meeting certain activity thresholds, or social features where users can compete with friends.

Data Viz

Insight: Even light activity (LightlyActiveMinutes) has a **significant positive correlation** with **DailySteps**.

LightActive Vs Steps





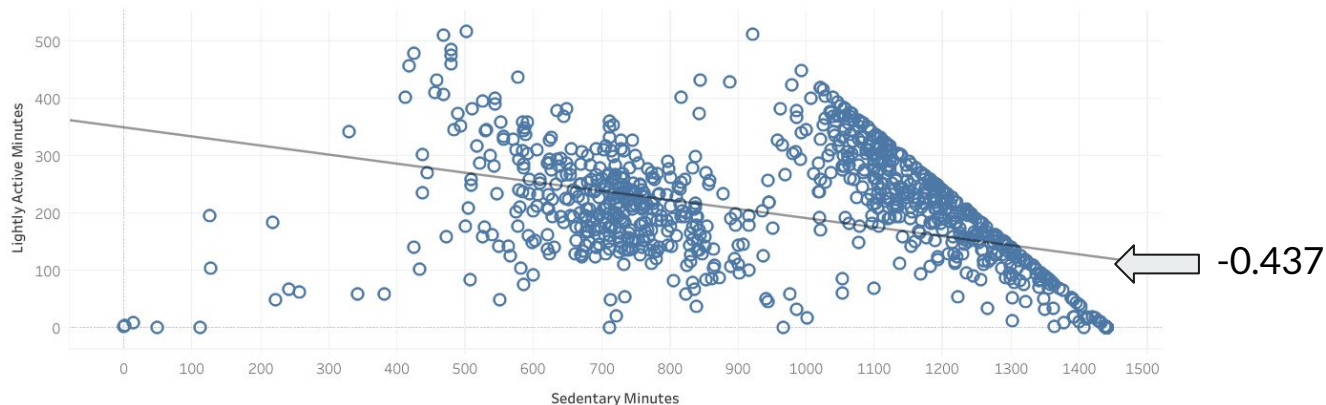
Recommendation

Recognize that not every user may be inclined or able to engage in very active workouts. **Promote the benefits of light activities such as walking, stretching, or yoga. Offer features that allow users to set goals for light activities and track their progress over time.**

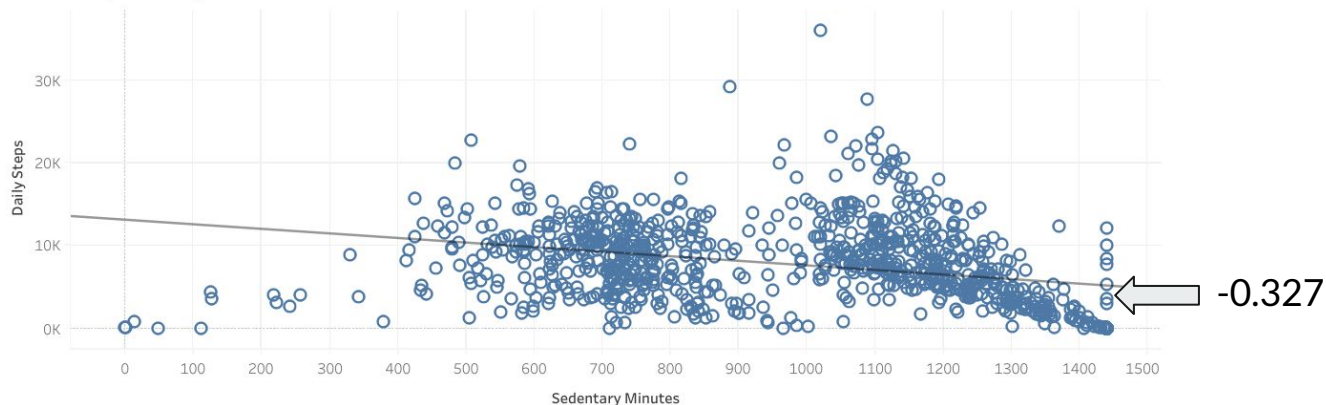
Data Viz

Insight:
SedentaryMinutes
negatively
correlates with both
LightlyActiveMinutes
es and **DailySteps**.
Prolonged sedentary
behavior can have
adverse health
effects.

Sedentary Vs Lightly



Sedentary Vs Steps





Recommendation

Introduce **reminders or alerts** in the Bellabeat app to **encourage users to take short breaks, stand up, or engage in brief activities** if they have been sedentary for too long. Consider integrating mindfulness or short guided break exercises.



Conclusion

- Update App with
 - Features or challenge to encourage active minutes
 - Reminders and alert to encourage take a break for sitting too much
- Promote the benefits of light activities



Further Research

Based on the sleep time and the intensities

Measured by hourly or minutely

Thank you

