Bellabeat Data Case Study

**Ask**

Sršen asks you to analyze smart device usage data in order to gain insight into how consumers use non-Bellabeat smart devices. She then wants you to select one Bellabeat product to apply these insights to in your presentation. These questions will guide your analysis:

1. What are some trends in smart device usage?

2. How could these trends apply to Bellabeat customers?

3. How could these trends help influence Bellabeat marketing strategy?

You will produce a report with the following deliverables:

1. A clear summary of the business task

2. A description of all data sources used

3. Documentation of any cleaning or manipulation of data

4. A summary of your analysis

5. Supporting visualizations and key findings

6. Your top high-level content recommendations based on your analysis Use the following Case Study Roadmap as a guide. Note: Completing this case study within a week is a good goal.

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| **Case Study Roadmap – Ask** |
| **Guiding questions**   * What is the problem you are trying to solve? * How can the current trends of smart device usage help influence Bellabeat’s marketing strategy? * How Can your insights drive business decisions * I will used collected data to help Bellabeat make informed Business Decisions * Who are the Stakeholders? * Primary Stake Holders:   - Urška Sršen: Bellabeat’s cofounder and Chief Creative Officer  - Sando Mur: Mathematician and Bellabeat’s cofounder; key member of the Bellabeat executive team   * Secondary Stakeholders   ­- Bellabeat marketing analytics team: A team of data analysts responsible for collecting, analyzing, and reporting data that helps guide Bellabeat’s marketing strategy |
| **Key Tasks**   1. Identify the business task  * How can the current trends of smart device usage help influence Bellabeat’s marketing strategy?  1. How can your insights drive business decisions  * I will used collected data from the smart device industry to help Bellabeat make informed Business Decisions |
| **Deliverable**  A clear statement of the business task |

**Prepare**

Sršen encourages you to use public data that explores smart device users’ daily habits. She points you to a specific data set:

● FitBit Fitness Tracker Data (CC0: Public Domain, dataset made available through Mobius): This Kaggle data set contains personal fitness tracker from thirty fitbit users. Thirty eligible Fitbit users consented to the submission of personal tracker data, including minute-level output for physical activity, heart rate, and sleep monitoring. It includes information about daily activity, steps, and heart rate that can be used to explore users’ habits.

Sršen tells you that this data set might have some limitations, and encourages you to consider adding another data to help address those limitations as you begin to work more with this data.

Now, prepare your data for analysis using the following Case Study Roadmap as a guide:

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| **Case Study Roadmap – Prepare** |
| **Guiding Questions**   * Where is your data stored? * Kaggle in Excel Format * How is the data organized? Is it long or wide format? * It’s a long data format * Are there issues with bias or credibility in this data? Is your data ROCCC? * Reliable- No because the data only contains 30 participants which is very small compared to the whole fitness tracker market * ­Original- The data is not original because it originally comes from MTurk * Comprehensive- The data showed key aspects to the collected data, but it didn’t go in depth with product features * Current- The data was recorded 6.5 years ago * Cited- The data was collected through MTurk anonymously * How are you addressing licensing, privacy, security, and accessibility? * CC0: Public Domain * Creative Commons Attribution 4.0 International * How did you verify the data’s integrity? * Data being founded from MTurk generally have a high reliability rating * How does it help you answer your question? * Are there any problems with the data? |
| **Key Tasks**   1. Download data and store it appropriately 2. Identify how its organized 3. Sort and filter the data 4. Determine the credibility of the data |
| A description of all data sources used |

Links:

<https://link.springer.com/article/10.3758/s13428-013-0434-y#citeas>

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| **Case Study Roadmap - Process** |
| **Guiding Questions**   * What tools are being chosen and why? * Have you ensured your data’s integrity? * What steps have you taken to ensure that your data is clean? * How can you verify that your data is clean and ready to analyze? * Have you documented your cleaning process so you can review and share your results? |
| **Key Tasks**   1. Check the data for errors 2. Choose your tools 3. Transform the data so you can work with it efficiently 4. Document the cleaning process |
| **Deliverable**  Documentation of any cleaning or manipulation of data |