Marketing Analytics

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Assignment 1

1. **Choose an innovation from the list. The link to the 2024 innovations list is here. Once you select a product from the list, add its link here.**

I chose Wireless Headphone Luxury | Sonos Ace. Link to the innovation: https://time.com/7094621/sonos-ace/

2. **Identify a similar innovation from the past. Reflect on an innovation that resembles the one you've chosen. In 1–2 paragraphs, justify your choice by comparing both innovations in terms of their functionality, technology, or market impact**

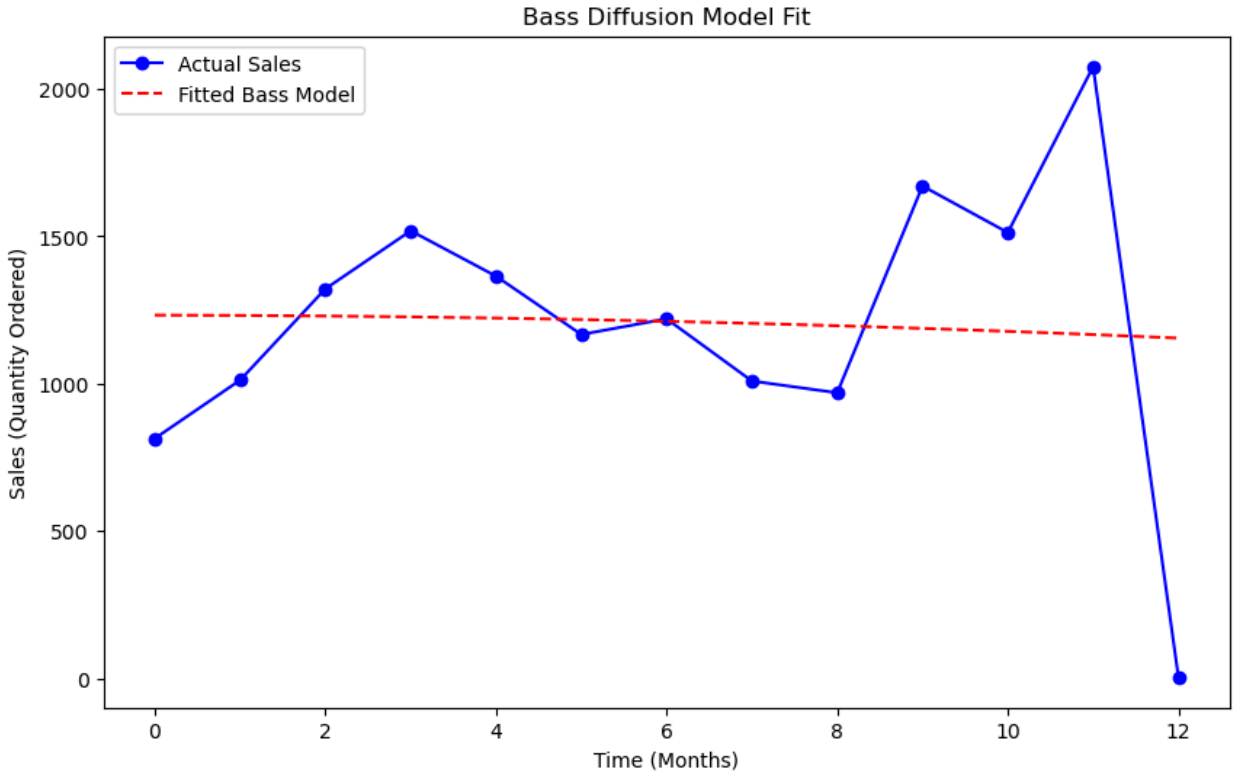
The Apple AirPods are a fitting comparison to the Sonos Ace Wireless Headphones, as both revolutionized the wireless audio experience with cutting-edge technology and user-centered design. The AirPods debuted in 2016, quickly gaining traction due to their seamless integration with Apple devices, compact design, and ease of use. They introduced the world to a new level of convenience in wireless audio, eliminating the need for tangled cords, and set a new standard for on-the-go listening.

On the other hand, the Sonos Ace Wireless Headphones take the concept of wireless listening further by focusing on luxury and immersive sound. Unlike the AirPods, which prioritize portability and Apple ecosystem integration, the Sonos Ace places a stronger emphasis on high-end audio performance, noise-cancellation, and premium materials, offering a more audiophile-centric experience. Both innovations have disrupted the market, but while the AirPods popularized true wireless earbuds and became synonymous with casual listening, Sonos Ace pushes the envelope in terms of sound quality and user experience, appealing to those seeking both style and substance in their audio products.

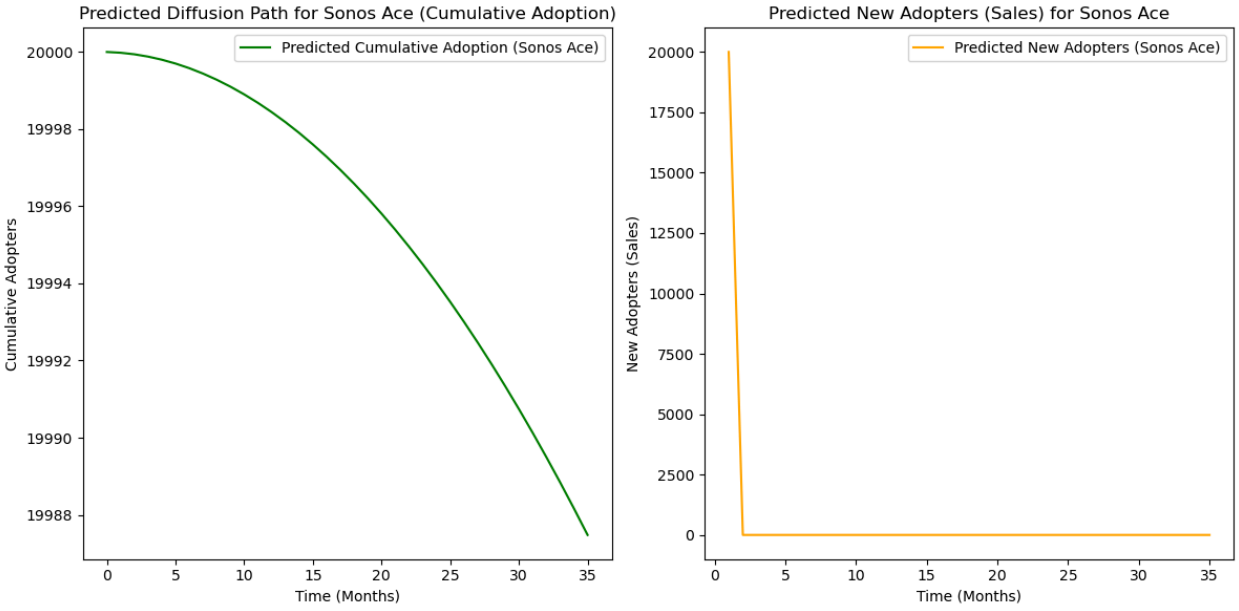
3. **Find historical data. Use Statista (the university provides access through AUA Wi-Fi) or another reliable resource to find a time series that matches your look-alike innovation. Provide the reference for the data source.**

Dataset Link: https://www.kaggle.com/datasets/kushagra1211/usa-sales-product-datasetcleaned

4. **Estimate Bass Model parameters. Using the time series data for your look-alike innovation, estimate the Bass diffusion model parameters (coefficient of innovation p, coefficient of imitation q, and market potential M).**



5. Predict the diffusion of the innovation selected in step 1. Based on the Bass Model, predict the diffusion path of the chosen innovation. Ensure your predictions are supported with relevant data.



6. Choose a scope (global or country-specific).
Decide whether to analyze the diffusion worldwide or within a specific country. Justify your choice with references or data.

When deciding whether to analyze the diffusion of **Sonos Ace** globally or within a specific country, we should consider the nature of the product and the data available. Analyzing the diffusion globally could give us a broad perspective, allowing us to understand how the product spreads across different regions and how worldwide factors, like global marketing campaigns or trends, influence adoption. However, this

approach can be complex, as various countries have differing economic conditions, cultural preferences, and adoption speeds, which could make global predictions less accurate. Moreover, reliable global sales data can sometimes be hard to obtain.

On the other hand, a **country-specific analysis** is more focused and allows for a deeper understanding of how the product will perform in a particular market. It's especially useful for products like **Sonos Ace**, which is a premium product that might have different adoption rates in different countries due to factors like income levels, local competition, and consumer behavior. By analyzing the diffusion in a specific country, we can account for local preferences, price sensitivity, and regional marketing strategies. This approach will give us more actionable insights, especially if the product is launching in a new country or region.

Given the characteristics of **Sonos Ace**, it makes sense to perform a **country-specific analysis**, focusing on a key market like the **US**, where the product has already been launched or is expected to launch. This would allow us to make predictions based on the local market conditions and better understand the potential adoption rate within that specific context.

7. Estimate the number of adopters by period. Using your Bass model parameters, estimate the number of adopters of the innovation over time. If necessary, use Fermi's logic to make rough estimations in the absence of concrete data.