NEWFORCE

Executive Summary

This capstone investigates how economic forces, brand evolution, and strategic gimmicks have shaped global Pokémon video game sales. By weaving together macroeconomic indicators, title design choices, and cross-media tie-ins, I will reveal the franchise's adaptive strategies and forecast its next chapter.

Motivation

I have been a lifelong fan of the Pokémon franchise, but my enthusiasm has declined in recent years due to what I perceive as a drop in game quality. This project seeks to investigate whether this perceived decline is reflected in measurable performance, using units sold as a key indicator.

By analyzing trends in sales alongside factors like development timelines, sentiment analysis, and promotional efforts, I aim to identify the underlying causes of this shift and assess how quality perception may be influencing the franchise's commercial trajectory.

Data Questions

- How have inflation, unemployment, and regional GDP growth influenced Pokémon game sales over time?
- How does development time, or gaps between game releases influence launch sales and long-term performance?
- Do remake releases (e.g. FireRed & LeafGreen) follow sales patterns similar to their originals, and how do modern market conditions or nostalgia affect performance?
- How does sales performance compare between Mainline RPG titles, and Spin-offs?
- What effect do external promotions (i.e. movie releases, toy lines, TV shows) have on game launch and long-tail sales?

- Is there a measurable relationship between perceived quality decline and total units sold over time?
- Can we accurately forecast sales of upcoming Pokemon games: Legends Z-A, and Codename: Gaia using historical sales data and economic factors?

Minimum Viable Product (MVP)

This project MVP will include an analysis of the sales of all pokemon video games, comparing market performance by region, normalized by historical economic data, as well as aggregated review of Metacritic scores, an NLP-based sentiment analysis aggregating Twitter, Reddit, and YouTube comments, and content analysis of gameplay changes across titles.

This data will be presented using Google Slides, with visualizations will include:

- Supporting charts and graphs generated using python detailing regional performance, economic correlations, and segment comparisons
- Power BI Dashboard for interactive views of historical sales metrics, normalized by inflation and unemployment
- Regressive predictive model generated in tableau for forecasting sales for Legends Z-A and Codename: Gaia, with scenario sliders for key economic indicators and promotional factors.

Data Sources

- VgChartz - basic game data, metacritic scores, and regional sales information,
- Twitter, Reddit, and YouTube - emotional sentiments about the games
- Serebii.net - Historical cross-promotional release data. I.e. Anime, movies, etc.
- WorldBank - historic economic data

Known Issues and Challenges

- I will need to write a crawler or possibly use an unofficial API built by someone else, as there is no official API.

- In theory, much of my cleaning can be worked into my scraper py script, but the data will need to be normalized to get proper economic visualizations.
- A challenge will be determining actionable steps for Game Freak to take.
- Reviewing how to create regressive models from my old psych stats notes and leveraging online tutorials.