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**E-Sports & Gaming Analysis**

**The (K) Mean Team**

We focused our analysis on **understanding games as an entertainment product**. This led us to examine the **industry's current makeup, the characteristics or features of games, and how games develop over their product cycle**.

* **Gaming Today:** it was essential to differentiate ourselves by not simply reprinting the Steam charts. We recreated them on **powerBI to facilitate visualization and exploration outlining the story behind the numbers**. Our efforts led us to **Twitch viewership** data as well as **eSports history** with the top winningest players. We began by laying down line and area charts for any early trends in-game popularity where we saw high overlap with Twitch game viewership, games being played, and the top eSports. Our PowerBi dashboard, primarily descriptive statistics around top games, esports earnings to tournaments played, regional earnings, player origins, and their age and earnings, which allows for different levels of granularity amongst the data.
* **Popularity:** after understanding the components around video games and their interaction, we turned to **R to examine what were the key important game features**. We cleansed data and standardized the names, executed loops in the cleaning to standardize every data source, and we also normalized our values as **there was a clear distinction between multi and single-player games**. With additional data containing game tags(genre)(single/multiplayer), developers, price, and reviews, **we used k-means to group them, splitting the clusters on single and multiplayer as multiplayer games tended to perform better overall as they had wider player bases and could also be deemed competitive being eligible for eSports.** The resulting clusters demonstrated a strong relationship between active players and positive reviews and explained the different time sinks that players put into other games are also affected by the game genre (simulation vs. fighting).
* **Growth:** We **wanted to explore if there were distinctly different growth or diffusion models.** For this section, we focused on **examining 767 games over their first 60 months of operation**. We used the **k-means algorithm to create clusters over their normalized average daily users** and detect seven distinct growth profiles that we further analyzed using a life cycle divided into quarters and applying **Geoffrey Moore's Technology adoption life cycle curv**e.

Overall, it was an exciting and fulfilling assignment in which we learned about a fascinating industry, understand the different features of successful games, and dig into how games grow and their impact on industry players.

**References**

*Esports Earnings :: Prize Money / Results / History / Statistics*. (2020, December 1). Esports Earnings. <https://www.esportsearnings.com/>

Statista. (2021, January 29). *Age of U.S. video game players in 2020*. <https://www.statista.com/statistics/189582/age-of-us-video-game-players-since-2010/>

Moore, G. (2006). *Crossing the Chasm*: HarperBusiness.

**Links**

Dashboard:

<https://app.powerbi.com/view?r=eyJrIjoiNGE5MmY4NjgtN2IwZS00MGJjLWJmYjAtNTZmYzA3ZDlmYTE2IiwidCI6ImVlYTdjNTk1LWIxMTAtNGRkNS1hZGE5LTcwZmQxZmQ5YmI4ZSIsImMiOjJ9>

Video:

<https://vimeo.com/535683893>