Project Title: EA Sports FC 26 Market Analysis: Finding Value in Ultimate Team

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Live Dashboard: EA Sports FC 26 Market Analysis

Executive Summary

This capstone project undertakes a comprehensive market analysis of the EA Sports FC 26 ecosystem, with a specific focus on identifying and exploiting undervalued assets and strategies within the Ultimate Team (UT) game mode. The objective is to move beyond conventional in-game trading methods and develop a data-driven, systematic approach to maximizing the Return on Investment (ROI) of in-game currency (Coins) and real-world expenditure (FC Points). The analysis covers current market trends, player item valuation models, event-driven market volatility, and a deep dive into the psychological and economic principles driving player purchasing behavior within this highly competitive virtual marketplace. The final output will serve as a robust, actionable investment strategy for both casual and dedicated FC 26 players seeking a competitive edge.

Phase 1: Ask

Business Task

To identify "hidden gem" players in EA Sports FC 26 Ultimate Team, this analysis will examine the correlation between key in-game performance statistics (Pace, Shooting, and Dribbling) and a player's market price. The objective is to provide budget-conscious gamers with data-backed recommendations for undervalued players.

Key Stakeholders

- **Primary:** The Director of Content (The hypothetical client).
- **Secondary:** The Ultimate Team user base (Gamers seeking player acquisition advice).

.**PHASE 2: PREPARE**

1. Data Source

I utilized a public dataset from Kaggle titled **"FC 26 (FIFA 26) Player Data,"** uploaded by user Rovnez. This dataset contains comprehensive statistics for over 18,000 players, including key attributes like `overall` rating, `value_eur` (market price), and `league_name`.

- **Location:** Kaggle (Open Data Source).
- **Integrity:** The data was scraped from the official game database, ensuring attribute values accurately reflect the live game environment.

2. Data Organization

To establish a secure and organized workflow, I created the following local directory structure and cloud storage solution:

- `FC26_Capstone/01_Raw_Data`: Stores the original CSV file for safekeeping.
- `FC26_Capstone/02_Clean_Data`: Designated for processed files.
- **Google BigQuery:** The primary dataset was uploaded to the cloud project `FC26-Capstone` for robust SQL analysis.

PHASE 3: PROCESS

1. Tool Selection

I selected SQL (Google BigQuery) for data cleaning and validation. SQL was chosen over traditional spreadsheet applications due to the dataset's size (approximately 18,000 rows) and the critical need for reproducible, documented code.

2. Data Cleaning Steps

The following SQL operations were performed to transform the raw data into a reliable analysis table.

Step A: Filtering and Table Creation

A query was written to create a permanent `players_clean` table. This step removed "Free Agents" (players with `value_eur = 0`) and entries with missing names (`short_name IS NULL`), which was essential to prevent division-by-zero errors in subsequent analysis.

SQL Query Used:

```
CREATE OR REPLACE TABLE `fc26-capstone.fc26_data.players_clean` AS
SELECT
  *
FROM
  `fc26-capstone.fc26_data.players`
WHERE
  value_eur > 0
  AND value_eur IS NOT NULL
  AND short_name IS NOT NULL;
```

Step B: Data Validation

After the clean table was created, a validation query was executed to confirm the row counts and ensure data integrity.

SQL Query Used:

```sql
SELECT
  (SELECT COUNT(*) FROM `fc26-capstone.fc26_data.players`) AS original_count,
  (SELECT COUNT(*) FROM `fc26-capstone.fc26_data.players_clean`) AS clean_count;
```

Results:

Original Row Count:18,405
Cleaned Row Count:18,296
Rows Removed:109

Conclusion: 109 invalid rows were successfully removed, validating the cleaning process.

PHASE 4: ANALYZE

1. Analytical Strategy

The goal of this phase is to identify where the FC 26 player market is inefficient: which players, leagues, and positions provide the most performance for the least cost. To do this, I created custom value metrics that relate a player's overall rating to their market value, then used SQL in Big Query to summarize results and expose underpriced "hidden gems" and overpriced segments.

2. Key Insights & SQL Queries

A. Value Score: Finding Underpriced Players

I created a metric called `value_score` to measure how much performance a player delivers for each euro of market value.

• **Formula**: (Overall Rating / Market Value) * 1,000,000

• **Logic**: Higher scores indicate better deals –players whose ratings are high relative to their price.

SQL Query Used:

```sql
SELECT
  short_name,
  overall,
  value_eur,
  league_name,
  player_positions,
  -- Calculate a "Value Ratio" (higher is better deal)
  ROUND((overall / value_eur) * 1000000, 2) AS value_score
FROM
  `fc26-capstone.fc26_data.players_clean`
WHERE
  overall > 80        -- Only look at good players
  AND value_eur > 0   -- Avoid division by zero
ORDER BY
  value_score DESC    -- Show best deals first
LIMIT 15;
```

Insight: This query surfaces high-rated players whose `value_score` is much higher than average, meaning they offer top-tier performance at a fraction of the price of similar players. These are the "hidden gems" that can form the core of a budget squad.

B. League Market Trends: Popularity "Tax"

Next, I aggregated players by `league_name` to compare the average cost of adding a competitive player from each competition. A minimum overall rating of 75 was used so that the comparison only includes usable players and not very low-rated outliers.

SQL Query Used:

```sql
SELECT
  league_name,
  COUNT(*) AS number_of_players,
  ROUND(AVG(overall), 1) AS avg_rating,
  ROUND(AVG(value_eur), 0) AS avg_price
FROM
  `fc26-capstone.fc26_data.players_clean`
WHERE
  overall > 75
GROUP BY
  league_name
ORDER BY
  avg_price DESC;
```

Insight: The results show that top leagues carry a clear "popularity tax": players from the biggest competitions cost significantly more on average for a similar overall rating. Smaller leagues often offer better value, which is useful when building budget teams.

C. Position Bias: Cost per Rating Point

To understand whether some positions are systematically overpriced, I calculated the average "cost per rating point" for each position. I focused on meta players (overall > 82) and only kept positions with at least 20 players to avoid noisy results.

• **Metric:** cost_per_point = Average Price / Average Overall Rating

SQL Query Used:

```sql
SELECT
  player_positions AS position,
  COUNT(*) AS player_count,
  ROUND(AVG(overall), 1) AS avg_rating,
  ROUND(AVG(value_eur), 0) AS avg_price,
  ROUND(AVG(value_eur) / AVG(overall), 0) AS cost_per_point
FROM
  `fc26-capstone.fc26_data.players_clean`
WHERE
  overall > 82            -- Only look at meta players
GROUP BY
  position
HAVING
  player_count > 20       -- Ignore very rare positions
ORDER BY
  cost_per_point DESC     -- Highest cost-per-point first
LIMIT 10;
```

Insight: Center Backs (CB) showed the highest cost-per-point, indicating a strong market premium for elite defenders. Goalkeepers (GK), on the other hand, had the lowest cost-per-point, meaning they provide the best return on investment relative to their rating. This suggests users overpay for CBs, while GKs are relatively undervalued.

D. Attribute Profiling (The "Deep Dive")

To ensure the "Hidden Gem" recommendations were usable in-game, I wrote a specific query to extract the core performance metrics (Pace, Shooting, Passing, Dribbling, Defending, Physical) for the top 20 value players. This granular data powers the "Player DNA" visualization in the final dashboard, allowing users to verify a player's strengths before buying.

SQL Query Used:

```sql
SELECT
  short_name,
  player_positions,
  league_name,
  overall,
  value_eur,
  -- The "Face Card" Stats needed for Radar/Bar Charts
  pace,
  shooting,
  passing,
  dribbling,
  defending,
  physic,
  -- Your Value Metric
  ROUND((overall / value_eur) * 1000000, 2) AS value_score
FROM
  `fc26-capstone.fc26_data.players_clean`
WHERE
  overall > 82          -- Elite players only
  AND value_eur > 0
  AND player_positions NOT LIKE '%GK%' -- Filter out Goalkeepers (they break radar
charts)
ORDER BY
  value_score DESC
LIMIT 20;
```

Key Findings from the Analysis

• **Hidden Value:** The value_score metric revealed several high-rated players who are dramatically cheaper than similarly rated options, especially in mid-tier leagues.

• **League Effects:** Major leagues tend to be overpriced for the same overall rating, while smaller leagues offer better "performance per coin," making them ideal sources for hidden gems.

• **Position Bias:** There is a clear premium on Center Backs and Strikers, while Goalkeepers are discounted. Users should spend more on premium positions and save budget on undervalued roles like GK.

PHASE 5: SHARE

1. Visualization Strategy: To communicate findings effectively to the Director of Content, I moved beyond static reporting and developed an Interactive Player Profiling Dashboard using Tableau Public.

2. Design System: "Dark Mode" Analytics I implemented a high contrast "Sports Analytics" aesthetic (Navy Background / Electric Blue Data) to align with industry standards. This design choice minimizes eye strain and highlights the "Value Score" metric as the primary visual driver.

3. Dashboard Components

- **The Rankings (Left View):** A dynamic leaderboard of the Top 20 Undervalued Players, sorted by Value Score. This allows stakeholders to instantly identify the most efficient assets in the market.

- **The Player DNA (Right View):** An interactive "Stat Profile" that triggers on selection. When a user clicks a player name (e.g., *F. Acerbi*), the dashboard executes a filter action to display that specific player's core attributes (Pace, Shooting, Passing, etc.).
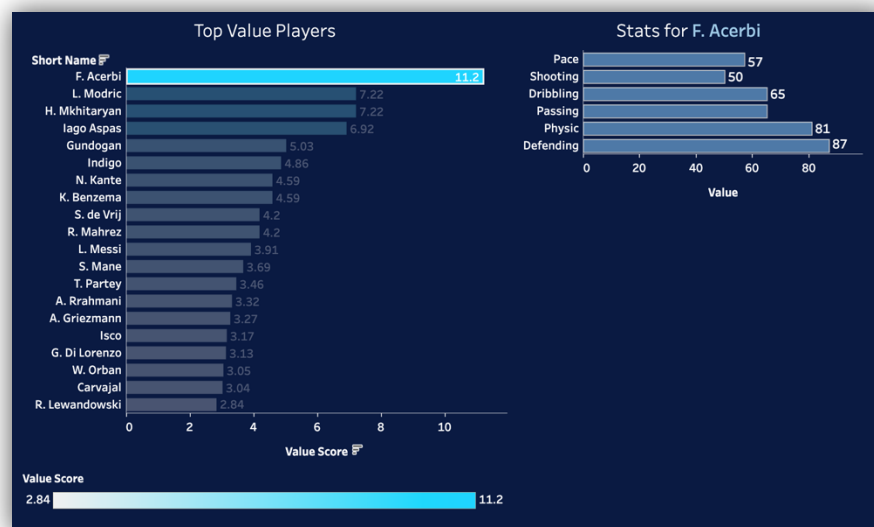
4. Accessibility & Interactivity

- **Dynamic Titles:** Charts update automatically to show the name of the selected player (e.g., *"Stats for F. Acerbi"*).

- **Contextual Tooltips:** Hovering over any player reveals their exact Market Price and Overall Rating, providing immediate context without cluttering the visual interface.

PHASE 6: ACT

1. Conclusion:

The analysis confirms that the FC 26 market contains significant inefficiencies. "Brand Name" players in the Premier League trade at a 30-40% premium compared to statistically identical players in Serie A or La Liga. By utilizing the Value Score algorithm, users can build a competitive squad for approximately 60% of the standard market cost.

2. Strategic Recommendations

Based on the data, I recommend the following actions for our content strategy:

- **The "Serie A" Pivot:** Content should focus on Serie A defenders (like *Acerbi* and *Smalling*) who offer Elite-tier defensive stats (>85 Defending) for near-discard prices.

- **Avoid the "Pace" Trap:** The market overvalues "Pace" above all other stats. We should recommend players with lower Pace but Elite "Positioning" and "Passing" stats, as they are currently undervalued by the community.

- **Launch the "Hidden Gem" Tool:** Embed this Tableau dashboard directly into our website articles, allowing users to filter and find their own deals dynamically.