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# Football Transfer Market Case Study – Club Economics and Player Valuation

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## 1. Business Task

This project aims to explore how football clubs operate economically in terms of transfer spending, squad valuation, and commercial revenue. It also examines player market values and national/regional trends.

Key Question: **How have top European football clubs evolved economically over the years, and what trends can we observe across players, clubs, and nationalities?**

This analysis helps in understanding football's commercial growth, especially around:

- Transfer spending trends
- Disparity in men's vs women's football revenue
- Distribution of top talent and market value

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## 2. Data Sources Used

The analysis uses **data scraped from Transfermarkt and Football Benchmark** (via manual extraction for educational purposes). Five datasets were cleaned and processed:

### Cleaned Datasets:

1. **expenditure\_fin\_cleaned**  
(Club-wise yearly transfer spending, income, arrivals, departures)
  2. **mv\_teams\_cleaned**  
(Current most valuable men's clubs with squad and valuation details)
  3. **mvp\_fin\_cleaned**  
(Most valuable men's players with market value, club, nationality, and age)
  4. **mens\_revenue.csv**  
(2024 revenue of top men's clubs)
  5. **womens\_revenue.csv**  
(2024 revenue of top women's clubs)
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### 3. Data Cleaning & Manipulation

Standard cleaning was done across datasets:

- Renamed columns for clarity and consistency.
  - Converted all currency values (e.g., €1.31bn, €200m) into **numeric millions (float)**.
  - Split composite fields (e.g., League + Season in transfer dataset).
  - Removed non-breaking characters or unicode issues (e.g., “Ã©” to “é”).
  - Combined and reshaped certain tables where necessary.
  - Ensured consistent datatype formats across all columns.
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### 4. Summary of Analysis

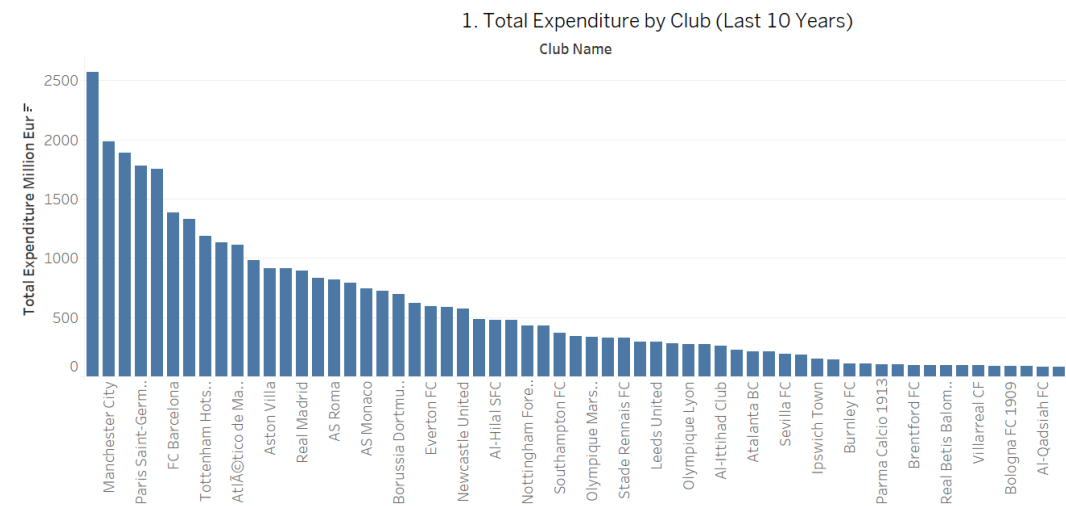
This analysis brought out strong commercial trends and disparities in modern football:

1. **Men's football clubs are heavily commercialized**, with several surpassing €1B in value and revenue.
2. **A widening gap exists between club expenditures vs. income**, with most clubs operating at a **negative balance**.
3. **Premier League clubs dominate spending**, especially Chelsea.
4. **Top talent is concentrated among a few clubs**, and most valuable players are under age 25.
5. **National dominance is also visible**, with Spain, England, and Brazil frequently recurring.
6. **Women's clubs are improving but still behind**, with revenues of top teams being just 1-2% of men's.

## 5. Supporting Visualizations & Key Findings

### 1. Total Expenditure by Club (Last 10 Years)

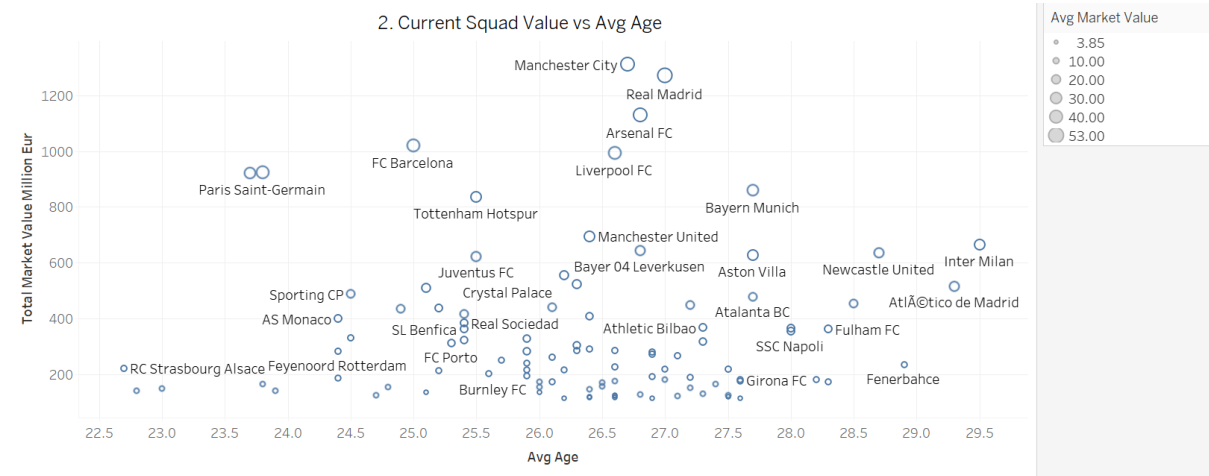
- Clubs with highest total expenditure are mostly from the Premier League.
- Chelsea FC stands out as the top spender over the last decade.



**Insight:** English clubs, particularly Chelsea, have been the most aggressive spenders in the transfer market.

### 2. Current Squad Value vs Avg Age (Bubble Chart)

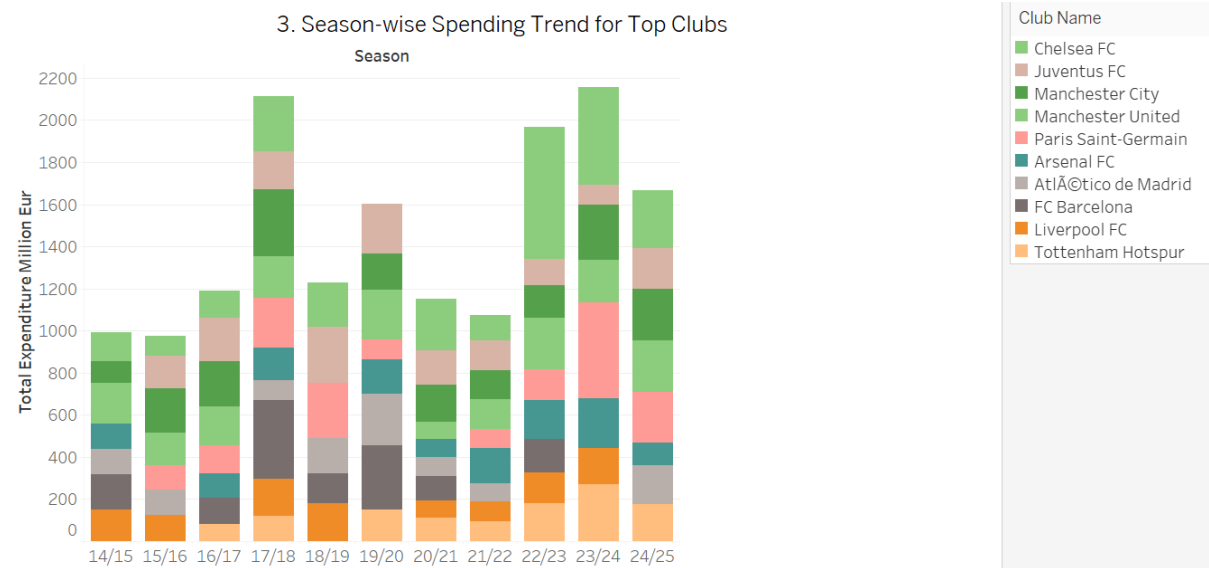
- Bubble size = Squad Value, X = Avg Age, Y = Squad Size
- Younger squads with high value suggest strong youth development or expensive young signings.



**Insight:** Top clubs with younger squads hold more value, indicating long-term investment.

### 3. Season-wise Spending Trend for Top Clubs

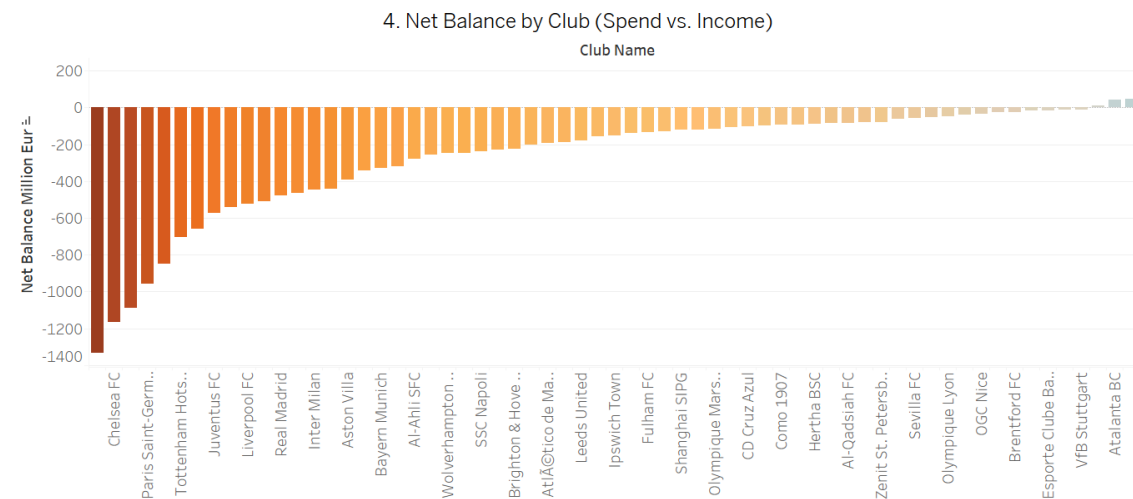
- Tracks spending of top 5 clubs across seasons.
- Chelsea's spending peaked in 2022–23.



**Insight:** Recent seasons have seen a spending surge, especially by a few elite clubs.

### 4. Net Balance by Club (Spend vs Income)

- Shows income vs expenditure differences.
- Some clubs spend significantly more than they earn in transfer dealings.

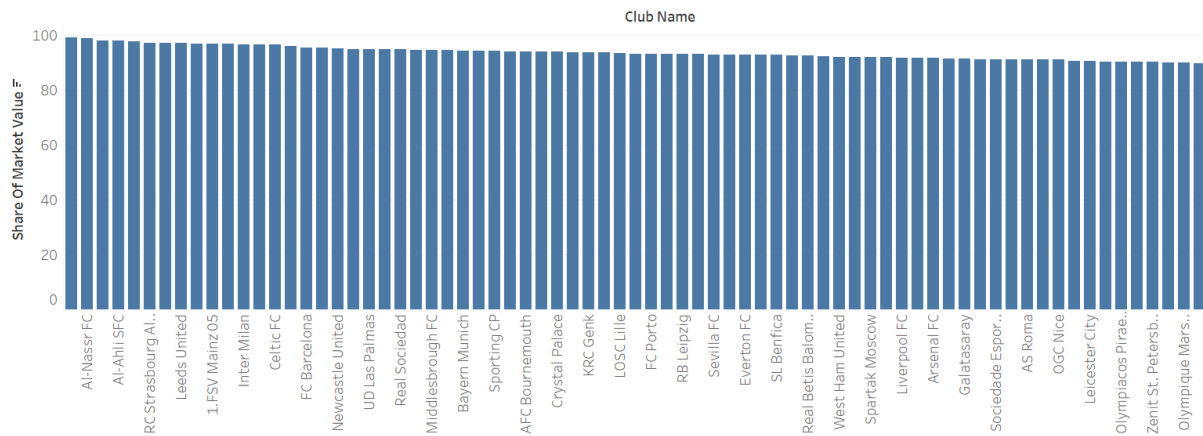


**Insight:** Most clubs operate in deficit, with massive spending not matched by transfer sales

## 5. Share of Market Value in Squad

- Displays the percentage share of squad players contributing to market value.
- Real Madrid and PSG have a high concentration of value.

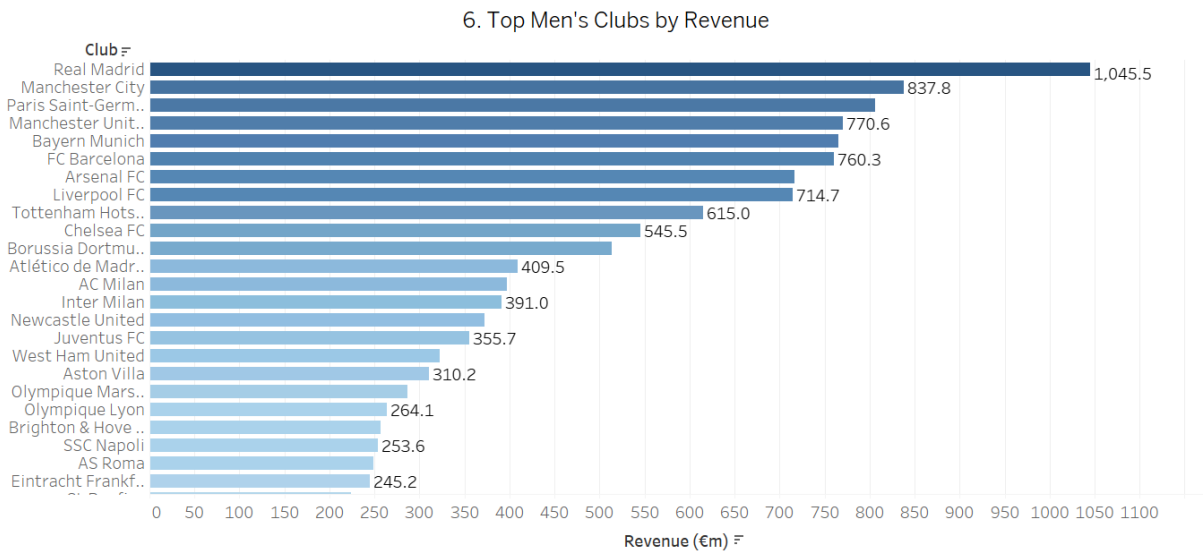
Share of Market Value in Squad



**Insight:** Value is concentrated among few elite players, not evenly distributed.

## 6. Top Men's Clubs by Revenue (2024)

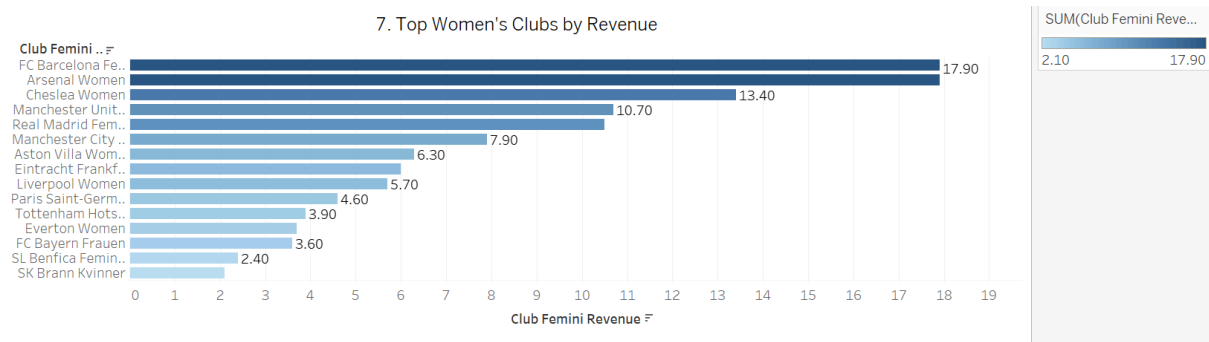
- Real Madrid crosses the €1B mark.
- Revenue includes matchday, broadcast, and commercial income.



**Insight:** Football is now a multi-billion euro industry, with Real Madrid leading the way.

## 7. Top Women's Clubs by Revenue (2024)

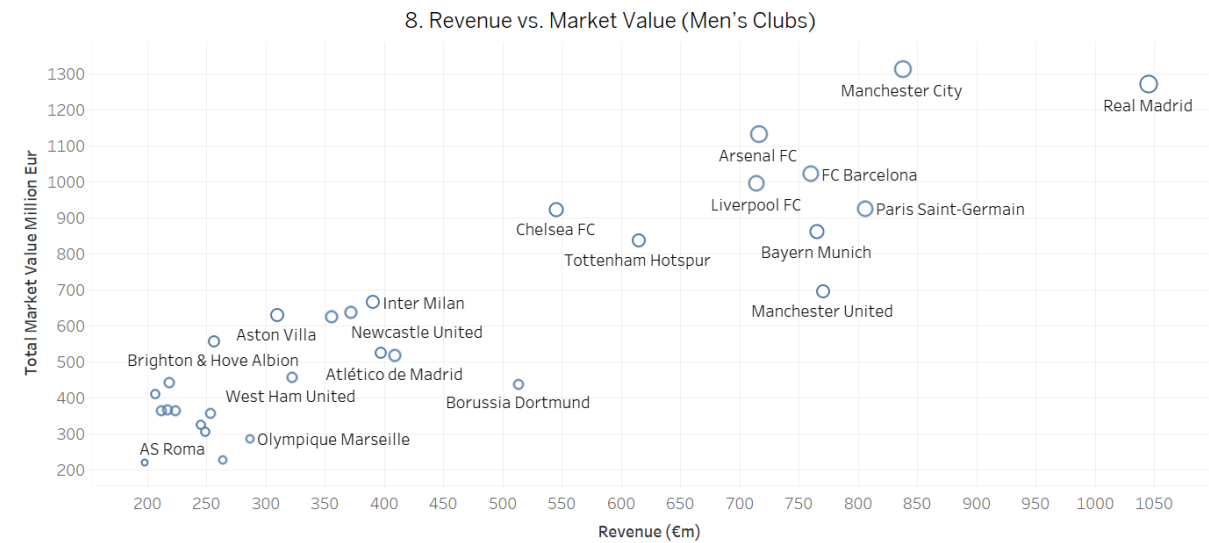
- FC Barcelona Women lead with €17.9M, followed closely by Arsenal Women.



**Insight:** Women's football is growing, but still lags significantly behind men's football in revenue.

## 8. Revenue vs Market Value (Men's Clubs)

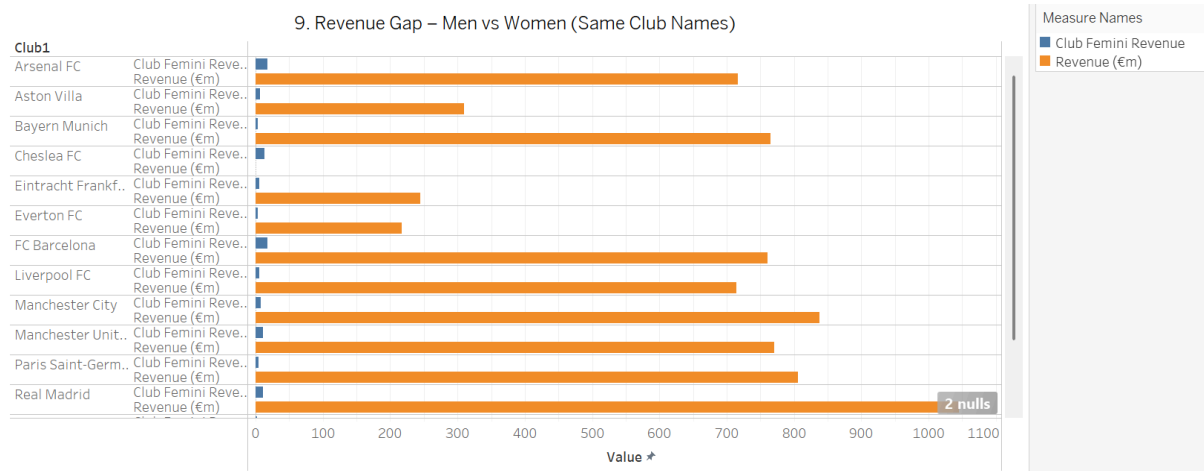
- Clubs with high revenue also tend to have high squad value.
- Strong correlation seen among top clubs.



**Insight:** Commercial success often translates to squad investment, creating a performance loop.

## 9. Revenue Gap – Men vs Women (Same Club Names)

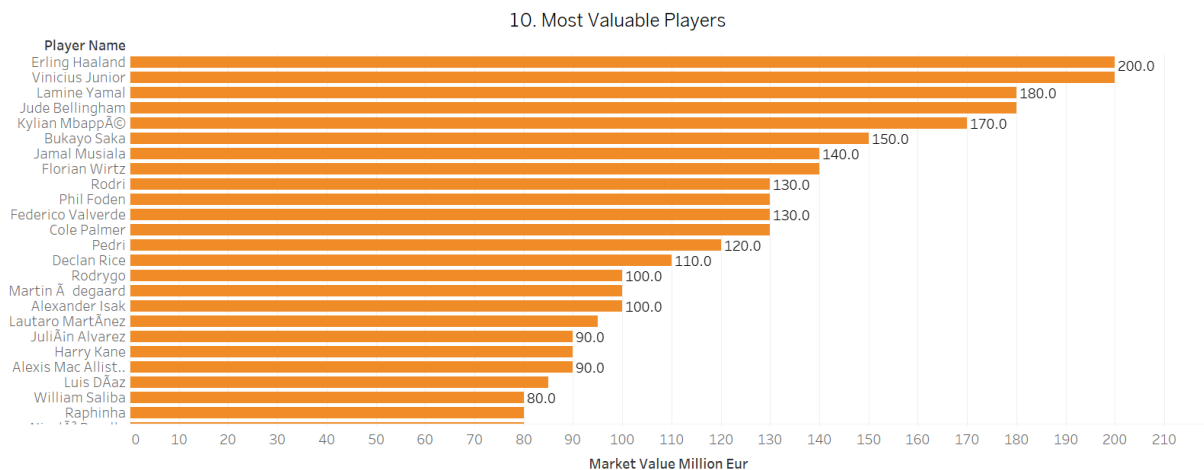
- For clubs like Barcelona and Arsenal, the revenue gap between men's and women's teams is more than **50x**.



**Insight:** There's a significant gender revenue gap, even within the same club.

## 10. Most Valuable Players

- Erling Haaland, Vinicius Jr, and Lamine Yamal top the list.
- Most MVPs under 25 years.



**Insight:** Top player value is heavily skewed towards young talents, with marketability and future potential in mind.

## 11. MVP Count by Club

- Real Madrid, Barcelona, and Manchester City dominate MVP count.

11. MVP Count by Club



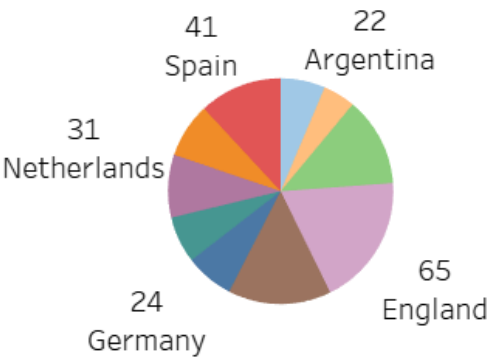
 **Insight:** Top clubs hoard MVPs, deepening competitive imbalance.

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## 12. MVP Count by Nation

- Spain, Brazil, England have the most valuable players.

12. MVP Count by Nation



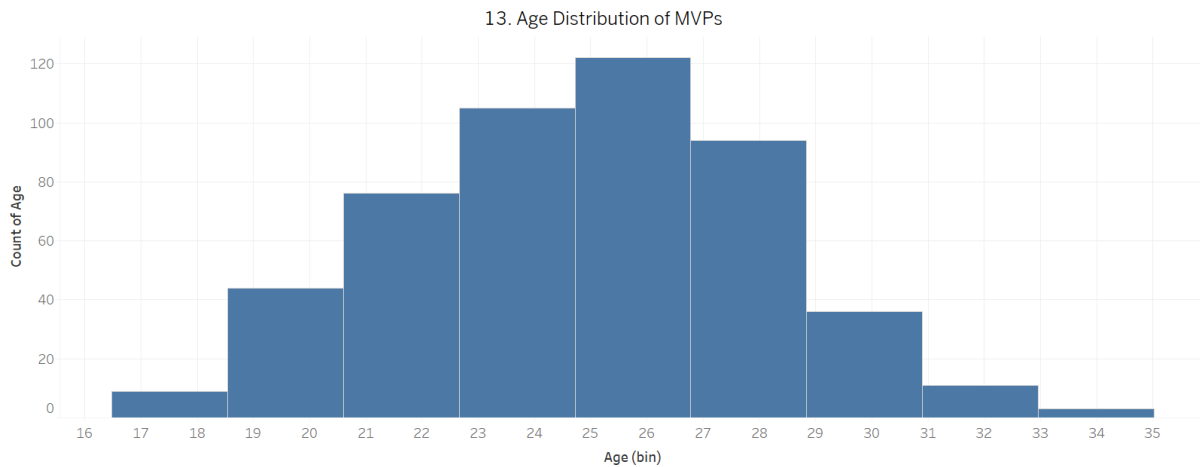
 **Insight:** Footballing powerhouses continue to produce top-tier talent.

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### 13. Age Distribution of MVPs

- Most MVPs lie between 20–25 years.
- Very few players over 28 on the MVP list.

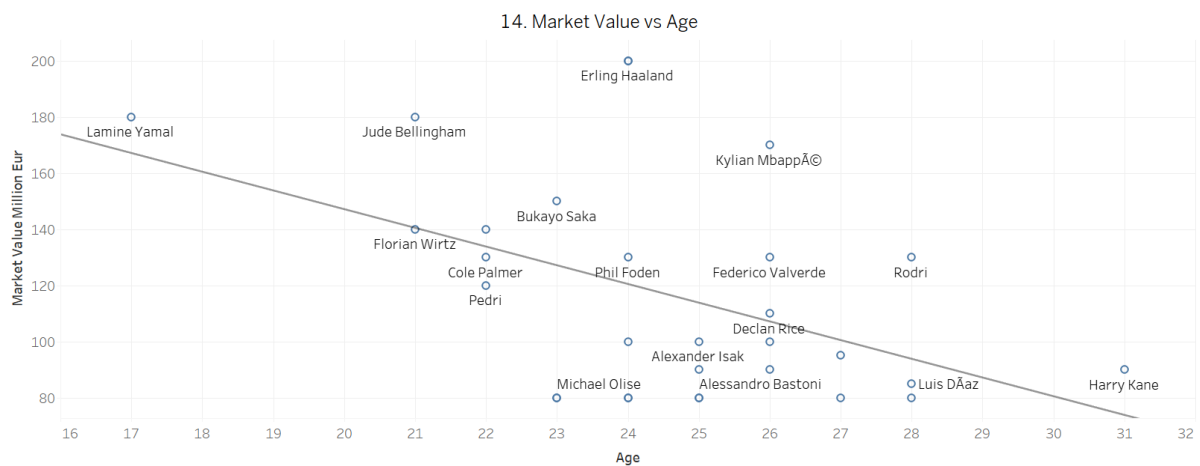



 **Insight:** Younger players dominate market value, aging stars lose value quickly.

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### 14. Market Value vs Age

- A downward curve beyond 26–27 years.
- Peak market value is at ~23–24 years of age.



 **Insight:** Football value peaks early, with diminishing returns beyond prime age.

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## 6. Recommendations

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### ♦ 1. Focus on Young Talent Acquisition

With younger players offering long-term ROI and high resale value, clubs should **scout and invest early**.

### ♦ 2. Bridge Revenue Gaps in Women's Football

Promote **joint sponsorships** and increase visibility for women's teams under same club brands.

### ♦ 3. Regulate Spending Imbalances

UEFA and domestic leagues should **enforce FFP** to prevent unsustainable net losses.

### ♦ 4. Promote Value Distribution

Encourage value caps or stricter limits to avoid talent hoarding by elite clubs.

### ♦ 5. Enhance Commercial Streams

Clubs with lower market value can still **thrive commercially**, as revenue and success are strongly correlated.

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## Final Conclusion

- Clubs like Real Madrid and Manchester City dominate both economically and talent-wise.
  - Youth is the new gold – market value peaks around 24.
  - Transfer spending is rising unsustainably for some clubs.
  - Revenue gaps between men and women are glaring.
  - Top-tier players and clubs are concentrated in Europe's elite, leading to widening disparity.
  - Greater commercial optimization and fairer regulations can ensure balance and longevity in the sport.
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