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Title: Survey on Favorite Sports and Activity Frequency

1-Population of Interest: The population of interest for this survey consists of students at EUI University. The selection of this group allows for a focused study on young adults' sports preferences and activity frequency.

2- Sampling Method: The sampling method used in this survey is cluster sampling. The survey was distributed exclusively within EUI University, treating the student body as a predefined cluster. By selecting participants only from this institution, the study ensures a focused analysis of sports preferences among university students. While this method limits external generalizability, it provides strong internal validity within the selected cluster.

Bias Identification and Mitigation: In designing this survey, several steps were taken to identify and minimize potential sources of bias:

- **Selection Bias: Since the survey was limited to EUI University students, it does not represent a broader demographic. However, by ensuring diversity in respondents from different faculties and academic years, we attempted to reduce internal biases.**

- **Response Bias: To prevent students from feeling pressured to answer in a certain way, the survey was anonymous. Questions were also framed neutrally to avoid leading responses.**

- **Non-Response Bias: We acknowledged the possibility that only more physically active students might choose to respond, potentially skewing results. To mitigate this, we encouraged participation from all students regardless of their activity levels.**

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3. Survey Questions

1. **What is your favorite sport to watch or follow?**

- Football

- Basketball

- Volleyball

- MMA

- Other: _

2. **How often do you participate in sports or physical activities?**

- Once a week

- Twice

- 3–5 times a week

- Never

3. **Which platform do you primarily use to stay updated on sports news and events?**

- Social Media

- Bein Sports

- YouTube (YT)

- TV

- Other: _

4. **Which sports event or tournament do you look forward to the most?**

- Olympics

- UFC

- FIFA

- NBA

- Other: _

5. **What motivates you to engage in sports or physical activities?**

- Better shape/health

- Competition

- Stress relief

- Entertainment

- Other: _

In my survey, the original questions were categorical, as they classified responses into distinct groups. For example, "favourite Sport" was a nominal categorical variable, with options like football, MMA, and basketball, which had no inherent order. Similarly, "Activity Frequency" was an ordinal categorical variable, as its responses ("never," "once a week," "twice a week," "3-5 times a week") followed a meaningful order but did not represent precise numerical values. However, to

analyse the data quantitatively, I transformed these categorical responses into numerical data by counting the number of times each choice was selected. This allowed me to calculate proportions and confidence intervals, making it possible to interpret the data statistically and visualize trends effectively.

Online Survey Link: https://docs.google.com/forms/d/e/1FAIpQLSewe-dMMj0ZIE5TViJsMywCEOnX45MHTyR_psFKOM_HIi42Ig/viewform?usp=header

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4. Number of Samples Collected

- **50 valid responses** were collected from EUI University students.

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5. Analysis

5.1 Demographics & Preferences

Data Analysis: To analyze the collected data, we calculated basic descriptive statistics, including proportions and 95% confidence intervals for each category. The results were visualized using bar charts and frequency tables to identify trends and patterns.

5.2 Favorite Sports to Watch or Follow (Mode & Statistics)

- **Most popular sport: Football**

- **Mode: Football**

- **Mean: 5.56**

- **Median: 1.0**

- **Interpretation: Football is the most-watched and followed sport among EUI students, reflecting global trends and youth interest.**

5.3 Frequency of Participation (Mode & Statistics)

- **Most common frequency: 3-5 times a week**

- **Mode: 3-5 times a week**

- **Mean: 12.50**

- **Median: 13.5**

- **Interpretation: Indicates that a significant portion of students actively participate in sports, emphasizing a healthy lifestyle culture at EUI.**

5.4 Sports News Platforms (Mode & Statistics)

- **Top platform: Social Media**

- **Mode: Social Media**

- **Mean: 12.50**

- **Median: 8.5**

- **Interpretation: Social media is the most-used source for sports updates, showing the dominance of digital channels among young audiences.**

5.5 Favorite Events or Tournaments (Mode & Statistics)

- **Most anticipated event: FIFA**

- **Mode: FIFA**

- **Mean: 12.50**

- **Median: 12.0**

- **Interpretation: Football events, particularly FIFA, generate the most excitement among EUI students.**

5.6 Motivation to Engage in Sports (Mode & Statistics)

- **Top motivation: Entertainment**

- **Mode: Entertainment**

- **Mean: 4.55**

- **Median: 4.0**

- **Interpretation: Entertainment is the primary motivation for engaging in sports activities among students.**

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6. Measures of Central Tendency

Variable	Mean	Median	Mode	Interpretation
Favorite Sport	**5.56**	**1.0**	**Football**	**Football is the most followed sport**
Frequency of Participation	**12.50**	**13.5**	**3-5 times a week**	**Majority engage regularly in sports activities**
Sports News Platform	**12.50**	**8.5**	**Social Media**	**Students rely on Social Media for sports updates**

| Variable	Mean	Median	Mode	Interpretation
Favorite Event	12.50	12.0	FIFA	FIFA is the most awaited tournament
Motivation to Engage in Sports	4.55	4.0	Entertainment	Entertainment is the primary motivation for sports

7. Viewing/Participation Habits & Trends

7.1 favourite sport count

The graph illustrates the distribution of favourite sports, showing a clear dominance of football, which received over 25 votes, making it the most preferred sport by a large margin. MMA (10 votes) and basketball (6 votes) follow as the second and third most popular choices, though with significantly fewer votes. Volleyball (around 4 votes) holds a mid-tier position, while table tennis, boxing, wrestling, fencing, and tennis each received only 1-2 votes, indicating minimal preference. The steep decline from football to other sports suggests a highly uneven distribution, with football being the overwhelming favorite.
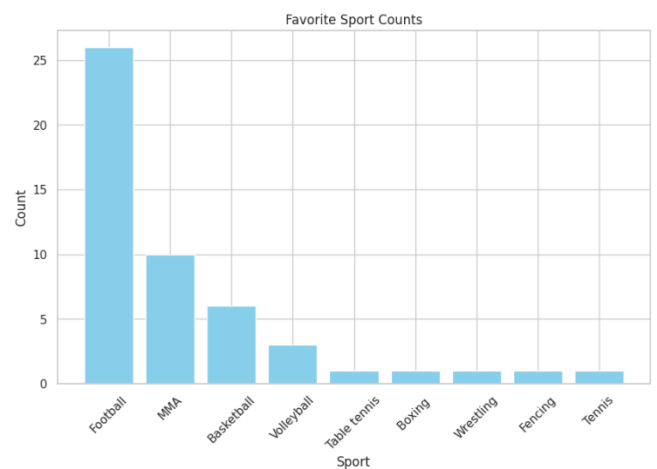
7.2 Platform Trends

The graph highlights social media as the dominant platform for sports news, with over 30 users favouring it, making it the clear preference. BeIN Sports (10 users) comes in a distant second, while YouTube (around 7 users) follows closely behind. Traditional TV (about 2 users) is the least preferred, showing a shift away from conventional media. The stark contrast between social media and other platforms suggests a strong reliance on digital and interactive sources for sports updates.
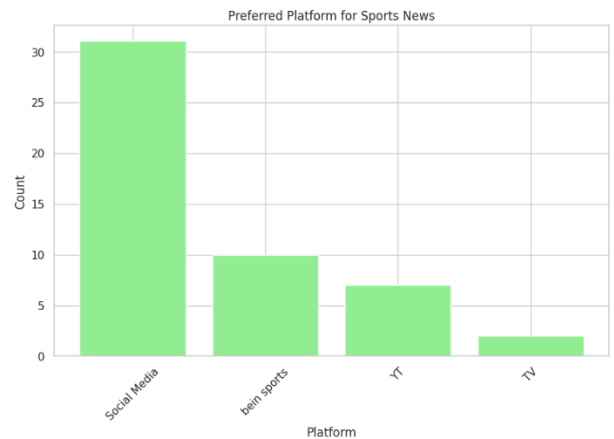

7.3 Activity frequency

The pie chart shows that the most common activity frequency is 3-5 times a week (36%), followed by twice a week (30%), indicating a strong engagement level. Once a week (24%) is less frequent but still significant, while 10% never participate, making them the smallest group. The distribution suggests that the majority engage in the activity multiple times per week, with only a small portion being completely inactive.
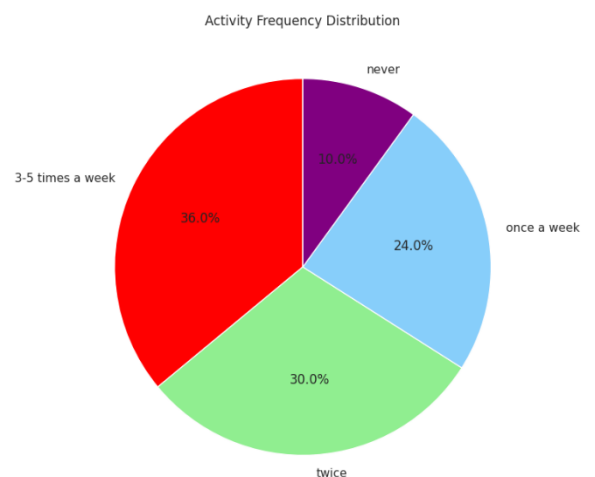
7.4 Motivation for engaging in sports

The bar chart represents the motivations for engaging in sports, where multiple-choice selections are separated by semicolons. The most common reason is entertainment (9 counts), followed by better shape/health (8 counts). Other notable motivations include a mix of fitness, competition, stress relief, and entertainment (7 counts).

Motivation for Engaging in Sports
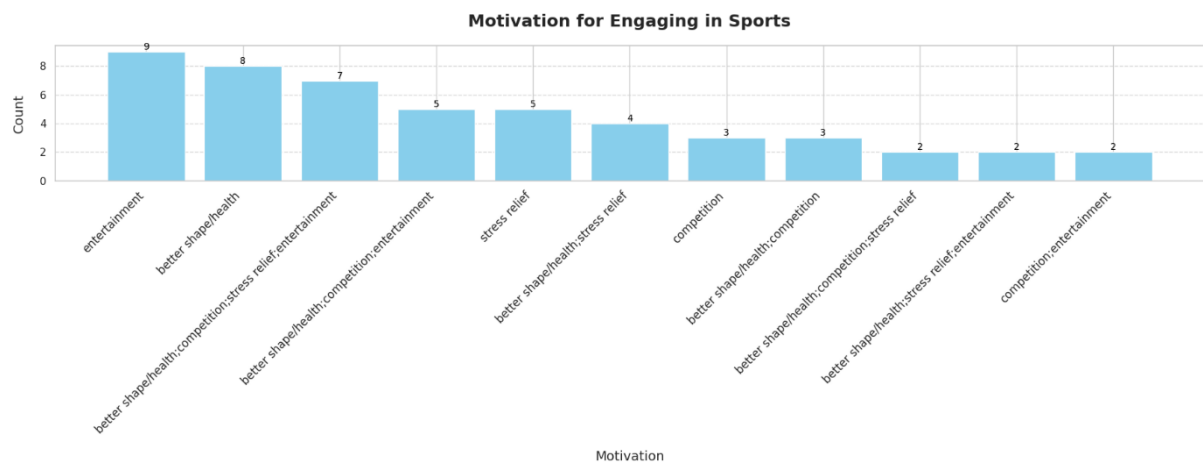
Key observations:

- **Entertainment is the most dominant factor.**

- **Better shape/health is also a major reason, showing that people prioritize fitness.**

- **Stress relief is a recurring motivation, though less frequent than fitness and fun.**

- **Competition appears but is not the primary driver for most individuals.**

- **Combinations of motivations show that people engage in sports for multiple benefits rather than a single reason.**

This distribution suggests that most people are driven by fun and fitness, with stress relief and competition being secondary factors.

7.5 correlation between favourite sport and motivation

Motivation Frequency by Favorite Sport
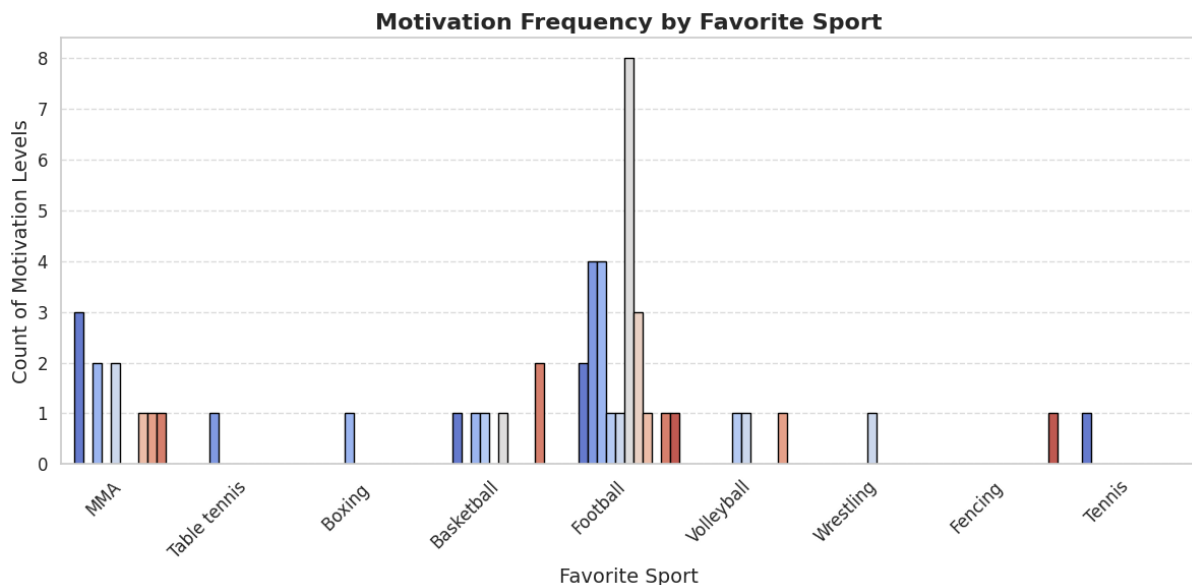
This bar chart shows the motivation frequency by favorite sport, highlighting how different sports attract people based on varying reasons. Here are the key insights:

1. Football dominates in motivation levels, with one particular motivation (likely entertainment or fitness) reaching the highest count (8).

2. MMA also has a notable presence, with multiple motivation levels appearing in the data.

3. Volleyball, basketball, and wrestling show balanced motivation levels, though at a lower frequency than football and MMA.

4. Boxing, table tennis, fencing, and tennis have lower motivation frequencies, suggesting they attract fewer people or have more specific reasons for engagement.

5. Motivation levels vary per sport, with football showing the widest range, meaning people engage in it for multiple reasons.

This suggests that team sports like football and volleyball have broad appeal, while combat sports like MMA and wrestling attract individuals with more specific motivations.

8. Confidence Interval Analysis (Optional Advanced Section)

Analysis of favourite Sport and Activity Frequency Proportions

Favourite Sport Proportions

The data shows a strong preference for **football**, which is the most popular sport among respondents, with **52%** favouring it. The confidence interval (CI) suggests that the true proportion likely falls between **38% and 66%**.

MMA follows as the second most preferred sport, with **20%** of respondents selecting it, and its true proportion is estimated to be between **9% and 31%**.

Basketball ranks third, with **12%** of individuals favouring it (**95% CI: 3% - 21%**), while **volleyball** comes next, albeit at a lower preference of **6%** (**95% CI: -1% - 13%**).

Other sports, including **table tennis, boxing, wrestling, fencing, and tennis**, each hold only **2%** of the responses. The negative lower bound in their confidence intervals (**-2%**) suggests that their actual proportions might be negligible in a broader population.

Activity Frequency Proportions

In terms of **training frequency**, the majority of respondents (**36%**) engage in their sport **three to five times per week** (**95% CI: 23% - 49%**), indicating a strong commitment among many participants.

About **30%** of individuals train **twice a week** (**95% CI: 17% - 43%**), while **24%** practice only **once a week** (**95% CI: 12% - 36%**).

A smaller segment (**10%**) reported **never participating** in their chosen sport (**95% CI: 2% - 18%**), suggesting that some people may have an interest in sports but do not actively engage in them.

Key Takeaways

- **Football dominates** as the most popular sport, while MMA holds a **strong second place**.

- **Most participants train regularly**, with over 66% practicing at least twice a week.

- **A small group does not participate actively**, despite having a favourite sport.

This data provides valuable insights into sports preferences and engagement levels, highlighting football's wide appeal and the high level of commitment among athletes.

9. Conclusion

This survey provides valuable insights into the sports culture at EUI University:

- **Football is the leading sport**, and **FIFA** is the most awaited event.

- **3–5 times weekly participation** shows an active student body.

- **Social media** leads in news consumption, highlighting the shift to digital platforms.

- **Health and better shape** are primary motivators, with competition and entertainment also notable.

10. Potential Issues Identified:

- **Limited Demographic Scope:** Since the survey was only conducted within EUI University, the findings cannot be generalized to a broader population.

- **Self-Reporting Bias:** Participants may have overestimated or underestimated their activity levels due to recall bias.

- **Survey Reach:** Some students who do not engage in physical activity might have chosen not to participate, leading to underrepresentation of inactive individuals.