

Exploring the influence of Social Media Engagement on Brand Loyalty: A Five-Season Analysis of La Liga Football Clubs

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Abstract

The present study examines social media engagement of La Liga's top football clubs from 2017–2022, collecting data throughout specific formulas. The results indicate differences across all seasons, specifically on Instagram ($F = 5,49$, $p = 0,01^*$, $\eta^2 = 0,26$). A moderate positive correlation exists between total of follows and total of posts from 2019–2020 in ahead ($p < 0,05$ in all cases), as well as engagement and posts on Instagram and YouTube from 2019–2020 in ahead ($p < 0,05$ in both cases). A multiple regression analysis revealed significant effects ($R^2 = 0,39$) between follows and total of posts. The association between total followers and engagement on Instagram ($r = 0,85$), Facebook ($R^2 = 0,95$), X ($R^2 = 0,96$), and YouTube ($R^2 = 0,38$) also revealed significant effects, and between engagement and number of posts across the different social networks - Instagram ($R^2 = 0,51$), Facebook ($R^2 = 0,24$), X ($R^2 = 0,35$), and YouTube ($R^2 = 0,32$). Clubs that consistently posted content experienced a notable increase in engagement metrics, strengthening brand loyalty.

Introduction

In recent years, the field of sports marketing has experienced a profound transformation, primarily driven by the emergence and proliferation of social media platforms. These platforms have fundamentally altered the manner in which fans engage with their favorite teams, while simultaneously equipping sports organizations with robust tools to enhance brand image and foster customer loyalty (Kumaradeepan et al., 2023, Jamil et al., 2022, Cheung et al., 2020; Kumar et al., 2022). The Spanish football league, LALIGA EA Sports League –from now on, La Liga-, it is a renowned for its rich history and competitive spirit, provides an exemplary context for investigating the effects of social media engagement on fan relationships. This study aims to analyze engagement levels across major social media platforms—specifically X, Facebook, Instagram, and YouTube—among La Liga football clubs over the past five seasons. Additionally, it seeks to explore the relationships between total engagement, post frequency, and follower counts (Herrera et al., 2018; Tafesse & Dayan, 2023).

Social media has become an essential component of the sports industry, enabling clubs to establish personal connections with their fans. According to Chuang et al., (2023) and Hudson et al., (2015), social media platforms facilitate two-way communication, allowing organizations to engage with their audiences in real-time. This interaction cultivates a sense of community among fans, which is vital for developing strong customer relationships and provides opportunities for socialization and the formation of online communities (Dineva et al. 2024; Abdallah, 2024).

One example of the potential of social media in sports is the case of the Spanish football league, LALIGA EA Sports League—hereafter referred to as La Liga. Known for its rich history and competitive spirit, La Liga provides an ideal context for examining the impact of social media engagement on fan relationships. Thus, in the context of La Liga, clubs have effectively utilized social media not only to promote their matches and merchandise but also to share behind-the-scenes content, player interactions, and fan-generated material, thereby enhancing the overall fan experience. The significance of social media engagement in sports cannot be overstated. Research by Kumar et al. (2015), Martin-Consuegra et al. (2021), and Bilgin et al. (2018) indicates that higher levels of engagement on social media platforms are positively correlated with increased fan loyalty and favorable brand perceptions. This is particularly pertinent in the competitive landscape of La Liga, where clubs compete not only for on-field success but also for the attention and loyalty of their fans. The ability to engage effectively with fans can lead to increased match attendance, higher merchandise sales, and ultimately, greater financial success for the clubs, as well as establish robust connections with their fan base (Wang, 2023).

In analyzing social media engagement among La Liga clubs, it is essential to consider the various metrics that define engagement. Existing literature characterizes customer engagement as *“the repeated interactions between consumers and a brand that strengthen the emotional, psychological, or physical investment a customer has in that brand”* (Brodie et al., 2011; Van Doorn et al., 2010). Each social media platform offers distinct opportunities for engagement; for instance, Instagram is renowned for its visual content, making it an ideal medium for sharing highlights and player imagery. Conversely, X is often employed for real-time updates and interactions during matches. Facebook, with its versatile content capabilities, allows clubs to disseminate longer posts, videos, and event information, while YouTube serves as a platform for more comprehensive content, such as match highlights and player interviews. Understanding these nuances is vital for clubs to optimize their engagement strategies across different platforms.

The relationship between engagement, post frequency, and follower counts represents a critical area of exploration in this study. Research by Herrera et al. (2018) suggests that the frequency of posts can significantly influence engagement levels. Clubs that adhere to a consistent posting schedule are more likely to maintain audience engagement and attract new followers. Additionally, the size of a club's follower base can also affect engagement; a larger follower count often correlates with higher engagement rates, as a greater number of fans are exposed to the content being shared (Veirman et al., 2017).

In the context of La Liga, the past five seasons have witnessed substantial transformations in the social media strategies employed by clubs. As digital marketing has gained prominence, clubs have increasingly invested in social media management to bolster their online presence. This investment has led to a notable increase in both the volume of posts and the number of followers across various platforms. For example, clubs such as FC Barcelona and Real Madrid FC have consistently ranked among the top globally in terms of social media following, effectively leveraging their extensive fan bases to enhance engagement (Herrero-Gutiérrez, 2024). However, while the quantity of posts and followers is significant, the quality of engagement is equally critical. Research conducted by Aldous et al. (2019) identifies that meaningful interactions—such as comments and shares—are more indicative of genuine engagement than mere likes. This underscores the necessity for clubs to prioritize not only the growth of their follower counts but also the cultivation of authentic interactions with their audience.

This study seeks to fill a notable gap in the current literature by delivering a thorough analysis of social media engagement among La Liga clubs over the last five seasons. By examining the interplay between overall engagement, posting frequency, and follower counts, this research aims to provide valuable insights for club managers and marketers. A nuanced understanding of these relationships can empower clubs to formulate more effective social media strategies, thereby enhancing brand loyalty and fan interaction. In summary, the emergence of social media has significantly transformed how sports organizations connect with their fans. In the context of La Liga, clubs have the potential to leverage these platforms to cultivate stronger relationships with their audiences.

This research will evaluate engagement levels across X, Facebook, Instagram, and YouTube during five seasons, while also investigating the dynamics between engagement, posting frequency, and follower counts. Ultimately, it aspires to enrich the understanding of social media's impact on sports marketing and offer practical recommendations for clubs aiming to strengthen their digital footprint.

Methods

Data collection

An observational analysis was conducted on the content of selected social media platforms utilized by various clubs in the La Liga. The data collection spanned from July 1, 2017, to June 30, 2022. Initially, the official websites of each club were reviewed to identify the social media platforms they employed. Subsequently, the identified social media accounts were input into the Blinkfire Analytics tool to gather essential data regarding interactions on each platform and to calculate engagement metrics, which were recorded in the MS-SPORTS log sheet. This data collection process was systematically performed on the final day of each June and, posteriorly, was analyzed.

Sample size

The sample size for the present study was determined using the G*Power software (version 3.1.9.7). Drawing on the findings of Parganas et al., (2017), we calculated the statistical power for the t-test family at an alpha level of 0.05 and an effect size of 0.80, considering measurements taken both before and after the pre-season. Additionally, accounting for a projected dropout rate of 20%, we established that a minimum of 14 football teams would be necessary to achieve an actual statistical power of 82%. This rigorous approach ensures that the study is adequately powered to detect significant effects, thereby enhancing the reliability of the results.

Data collection tools

The MS-SPORTS record sheet was employed for the systematic collection of data across various social media platforms, specifically Facebook, X, Instagram, and YouTube. After identifying these platforms, relevant data was aggregated to assess the engagement levels of each club on a calendar year basis for each social network. This process necessitated the utilization of the Blinkfire Analytics tool, which facilitated the monitoring of activities and interactions conducted by followers, fans and engagement on these platforms. To quantify engagement, we applied the formulas established by Oviedo-García et al. (2014), which measure user interactions across the different social media networks. For Facebook, we utilized the formula adapted by Herrera-Torres et al. (2017), as the original formula proposed by Oviedo-García et al. (2014) includes metrics related to additional clicks that are only accessible to account administrators.

Engagement Facebook: $\frac{Reactions+Comments+Shares}{N^{\circ} Post}$, *engagement X:* $\frac{N^{\circ} Likes+Mentions+Retweets}{N^{\circ} tweets}$, *engagement Instagram:* $\frac{N^{\circ} Likes+Comments}{N^{\circ} Publications}$ and *engagement YouTube:* $\frac{N^{\circ} Comments+N^{\circ} Likes}{N^{\circ} Publications}$.

Procedure

The following steps were carried out for this study: i) study design; ii) field work, and iii) preparing data to get results.

i) Study design: it was noted a gap in the literature regarding the objective of the present study. Thus, a methodological design was created for this purpose having into account the football calendar league. In addition, the material necessary for data collection was prepared -Blinkfire Analytics tool and MS-SPORTS log sheet-

ii) Field work: during this period, it was used Blinkfire Analytics tool in order to obtain the data. MS-SPORTS log sheet was used to collect the information across the different social media platforms and to prepare the information for the results.

iii) Preparing data to get results: the data were refined, leaving them ready for further analysis.

Statistical analysis

Means and standard deviations were utilized for data processing, and descriptive statistics were computed for each variable (refer to Table 1 for further details). Prior to conducting any parametric statistical analyses, the assumption of normality was assessed using the Kolmogorov-Smirnov test for each variable. Repeated measures ANOVA was employed to identify differences across seasons: i) 2017–2018; ii) 2018–2019; iii) 2019–2020; iv) 2020–2021; and v) 2021–2022, focusing on all measures, including: i) mean engagement values on Facebook, X, Instagram, and YouTube; ii) total follower counts; and iii) total post counts. Planned comparisons were conducted to evaluate seasonal differences, and Cohen's d was calculated as an effect size indicator, with interpretations as follows: d = 0.20 indicating a small effect, d = 0.50 indicating a medium effect, and d = 0.80 indicating a large effect. Furthermore, Pearson's correlation coefficient (r-squared) was employed to analyze the relationship between the total number of followers and the total number of posts, as well as engagement and followers, and engagement and number of posts. The following criteria were used to interpret the magnitudes of these correlations: $r \leq 0,1$ as trivial; $0,1 < r \leq 0,3$ as small; $0,3 < r \leq 0,5$ as moderate; $0,5 < r \leq 0,7$ as large; $0,7 < r \leq 0,9$ as very large; and $r > 0,9$ as almost perfect. Regression analysis was conducted to model the prediction of total follower counts based on the characteristics of total posts that exhibited a positive correlation, as well as

engagement and followers, and engagement and number of posts. All statistical analyses were performed using Statistical software (version 13.1; Statsoft, Inc., Tulsa, OK, USA), with significance set at $p < 0,05$ for all tests.

Results

Descriptive statistics were calculated for each variable: i) engagement (see Table 1–4), ii) followers (see Table 5), and iii) posts (see Table 6). As it is shown in Tables 1,2,3 and 4 Real Madrid CF, FC Barcelona and Atlético de Madrid are the clubs with more engagement in all social media platforms. Cádiz CF and RCD Espanyol stand out on Facebook engagement – 231,67% and 158,82%, respectively-, even though it is the entity with the smallest number of total engagements. Getafe CF (268,81%) and RCD Espanyol (202,86%) had the biggest increase of X engagement. On contrary, Athletic club (-19,78%) and Girona FC (8,24%) had the lowest. On Instagram, UD Almería (1.360,67%) and Rayo Vallecano de Madrid (779,77%) increased in percentage of engagement difference, but Real Sociedad de Fútbol just an 28,98%. Finally, on YouTube UD Almería (3.745,45%) and Real Sociedad de Fútbol (2.251,35%) had increased substantially, but not Cádiz CF (-8,84). Despite the amount of total of followers of Real Madrid and FC Barcelona, those clubs are whose had increased less the percentage of number of followers during across the seasons – 36,64% and 41,14%, respectively-. However, Getafe CF and RC Celta de Vigo had increased 170% and 223,63% the number of followers in their social networks. Finally, Villarreal CF and Getafe CF are whose had increased more the number of posts – 159,09% and 154,55%, respectively-. Finally, RCD Espanyol and Valladolid CF had the lowest increment - -41,34% and – 50,89%, respectively-.

Table 1
Facebook's engagement rate increased every season in La Liga Football Clubs

Ranking position	Club's name	2017–2018 (e.r.)	2018–2019 (e.r.)	2019–2020 (e.r.)	2020–2021 (e.r.)	2021–2022 (e.r.)	Mean ± SD		Total (e.r.)	% of diff.
1	Real Madrid CF	109.200.000	110.200.00	111.200.000	111.300.000	112.200.000	110.8200	± 1.149.782,59	554.100.000	2,7%
2	FC Barcelona	103.000.000	103.100.000	103.200.000	103.500.000	103.300.000	103.2200	± 192.353,84	516.100.000	0,2%
3	Atlético Madrid	3.300.000	3.400.000	3.400.000	3.400.000	3.400.000	13.7400	± 89.442,72	16.900.000	0%
4	Valencia CF	1.700.000	1.800.000	1.800.000	2.000.000.00	2.200.000	3.3800	± 44.721,36	9.500.000	3,0%
5	Sevilla FC	1.200.000	1.200.000	1.300.000	1.400.000.00	1.400.000	1.9000	± 2000,00	6.500.000	29,4%
6	Real Sociedad	1.000.000	1.200.000	1.200.000	1.000.000.00	1.100.000	1.3000	± 1000,00	5.500.000	16,6%
7	Athletic Club	891.500	898.000	907.000	1.200.000.00	1.600.000	1.1000	± 1000,00	5.496.500	10%
8	Villarreal CF	1.000.000	1.000.000	1.000.000	1.200.000.00	1.200.000	1.099.300	± 308.837,66	5.400.000	79,4%
9	Real Betis Balompié	425.000	444.700	705.400	1.100.000.00	1.100.000	1.0800	± 109.544,51	3.775.100	20%
10	RCD Espanyol	488.000	523.500	450.500	449.800.00	456.700	755.020	± 333.802,43	2.368.500	158%
11	RC Celta Vigo	470.100	461.400	531.400	575.300.00	631.300	473.700	± 31.949,10	2.669.500	-6,4%
12	UD Almería	210.700	229.400	244.900	261.300.00	279.200	533.900	± 71.647,85	1.225.500	34,2%
13	Real Valladolid CF	248.700	227.100	245.400	199.200.00	288.300	245.100	± 26.716,76	1.208.700	32,5%
14	CA Osasuna	223.200	248.500	254.300	251.800.00	263.900	241.740	± 32.610,01	1.241.700	15,9%
15	RCD Mallorca	248.700	153.400	150.000	267.200	271.400	248.340	± 15.179,36	16.900.000	18,2%
17	Elche CF	123.300	245.500	241.700	256.700	261.800	218.140	± 61.261,23	1.090.700	9,1%
18	Girona FC	458.000	15.700	21.900	152.800	128.600	225.800	± 57.874,78	1.129.000	112%
19	Rayo Vallecano M	112.700	127.900	143.300	171.000	155.400	155.400	± 180.020,90	777.000	-71,1%
20	Getafe CF	58.100	62.200	87.200	31.900	192.700	142.060	± 22.800,94	710.300	37,8%
21	Cádiz CF	248.700	153.400	150.000	267.200	271.400	86.420	± 62.564,18	432.100	231%
<i>Note:</i> FC. football club; (e.r.) refers to Facebook engagement rate; 'Total (e.r.)' refers to total of Facebook engagement across all seasons; 'Mean ± SD' refers statistical mean and standard desviation; '% difference' refers to percentatge of difference between 2021–2022 and 2017–2018 seasons.										

Table 2
X's engagement rate increased every season in La Liga Football Clubs

Ranking position	Club's name	2017–2018 (e.r.)	2018–2019 (e.r.)	2019–2020 (e.r.)	2020–2021 (e.r.)	2021–2022 (e.r.)	Mean ± SD		Total (e.r.)	% of difference
1	Real Madrid CF	50.400.000	52.600.00	56.000.000	60.900.000	70.400.000	58.0600	± 7.954.118,43	290.300	39,68
2	FC Barcelona	52.600.000	54.400.000	60.000.000	68.100.000	78.500.000	62.7200	± 10.688.638,83	313.600	49,24
3	Atletico Madrid	4.500.000	4.800.000	5.300.000	5.900.000	6.600.000	5.4200	± 846.758,53	27.100.000	46,67
4	Valencia CF	1.200.000	1.300.000	1.400.000	1.500.000	1.600.000	1.4000	± 158.113,88	7.000.000	33,33
5	Sevilla FC	1.000.000	1.100.000	1.100.000	1.300.000	1.500.000	1.2000	± 200.000,00	6.000.000	50
6	Real Sociedad	605.700.00	747.100.00	852.200.00	915.400.00	1.000.000	824.080	± 153.047,11	4.120.400	65,10
7	Athletic Club	871.400	637.900	678.800	593.800	699.000	696.180	± 105.936,64	3.480.900	-19,78
8	Villarreal CF	479.500	494.000	519.900	982.100	972.100	689.520	± 262.945,78	3.447.600	102,73
9	Real Betis Balompié	615.800	916.700	968.800	735.700	781.900	803.780	± 141.803,23	4.018.900	26,97
10	RCD Espanyol	363.200	419.300	917.800	1.000.000	1.100.000	760.060	± 343.375,72	3.800.300	202,86
11	RC Celta Vigo	399.700	429.800	461.500	477.900	502.900	454.360	± 40.472,68	2.271.800	25,82
12	UD Almería	448.500	453.700	456.400	482.200	520.000	472.160	± 29.742,28	2.360.800	15,94
13	Real Valladolid CF	304.300	328.400	346.700	359.000	396.600	347.000	± 34.545,26	1.735.000	30,33
14	CA Osasuna	221.100	290.700	323.400	209.700	280.300	265.040	± 48.193,44	1.325.200	26,78
15	RCD Mallorca	279.300	229.700	243.800	322.800	375.600	290.240	± 59.766,07	1.451.200	34,48
17	Elche CF	210.500	261.800	264.100	258.000	275.200	253.920	± 25.102,33	1.269.600	30,74
18	Girona CF	242.700	214.100	220.500	241.900	262.700	236.380	± 19.440,47	1.181.900	8,24
19	Rayo Vallecano M	384.200	401.100	403.900	268.800	452.200	382.040	± 68.175,38	1.910.200	17,70
20	Getafe CF	72.000	90.100	112.500	141.500	278.500	138.920	± 82.232,79	694.600	286,81
21	Cádiz CF	103.300	111.200	134.200	407.600	152.300	181.720	± 127.738,24	908.600	47,43
<i>Note:</i> FC. football club; (e.r.) refers to X engagement rate; 'Total (e.r.)' refers to total of X engagement across all seasons; 'Mean ± SD' refers to statistical mean and standard desviation; '% difference' refers to percentatge of difference between 2021–2022 and 2017–2018 seasons.										

Table 3
Instagram's engagement rate increased every season in La Liga Football Clubs

Ranking position	Club's name	2017–2018 (e.r.)	2018–2019 (e.r.)	2019–2020 (e.r.)	2020–2021 (e.r.)	2021–2022 (e.r.)	Mean ± SD		Total (e.r.)
1	Real Madrid CF	60.100.000	74.200.000	88.700.000	100.100.000	121.300.000	88.8800	± 23.562.512,60	444.400.000
2	FC Barcelona	57.400.000	73.000.000	87.300.000	97.900.000	109.800.000	85.0800	± 20.569.807,97	425.400.000
3	Atlético Madrid	4.600.000	7.400.000	9.800.000	11.700.000	14.400.000	9.5800	± 378.5762,80	47.900.000
4	Valencia FC	657.600	841.100	965.000	1.100.000	1.600.000	1.032.740	± 356.494,19	5.163.700
5	Sevilla FC	672.200	911.200	1.300.000	1.700.000	1.500.000.00	1.216.680	± 421.481,66	6.083.400
6	Real Sociedad	775.300	969.400	1.100.000	1.300.000	1.000.000	1.028.940	± 191.858,56	5.144.700
7	Athletic Club	152.800	282.000	973.200	1.400.000	699.000	701.400	± 509.603,10	3.507.000
8	Villarreal CF	383.800	693.600	1.100.000	1.700.000	972.100	969.900	± 492.400,18	4.849.500
9	Real Betis Balompié	261.000	397.200	390.300	464.100	781.900	458.900	± 194.957,24	2.294.500
10	RCD Espanyol	177.500	314.800	498.400	576.800	1.100.000	533.500	± 353.056,24	2.667.500
11	RC Celta Vigo	169.000	256.300	274.300	322.400	502.900	304.980	± 123.771,31	1.524.900
12	UD Almería	35.600	235.600	277.300	348.900	520.000	283.480	± 176.065,80	1.417.400
13	Real Valladolid CF	124.000	210.100	259.300	404.100	396.600	278.820	± 121.078,39	1.394.100
14	CA Osasuna	48.800	114.200	152.700	220.700	280.300	163.340	± 90.301,12	816.700
15	RCD Mallorca	57.100	97.600	146.900	188.200	375.600	173.080	± 123.568,75	865.400
17	Elche CF	144.300	153.300	121.800	149.000	275.200	168.720	± 60.750,45	843.600
18	Girona CF	39.800	73.100	120.600	161.800	262.700	131.600	± 86.703,14	6.580
19	Rayo Vallecano M	51.400	57.900	180.600	161.200	452.200	180.660	± 162.704,36	903.300
20	Getafe CF	72.000	162.400	185.300	213.600	278.500	182.360	± 75.506,97	911.800
21	Cádiz CF	49.800	84.800	71.900	203.800	152.300	112.520	± 63.770,42	562.600

Note: FC. football club; (e.r.) refers to Instagram engagement rate; 'Total (e.r.)' refers to total of Instagram engagement across all seasons; 'Mean ± SD' refer and standard desviation; '% difference' refers to percentatge of difference between 2021–2022 and 2017–2018 season.

Table 4
YouTube's engagement rate increased every season in La Liga Football Clubs

Ranking position	Club's name	2017–2018 (e.r.)	2018–2019 (e.r.)	2019–2020 (e.r.)	2020–2021 (e.r.)	2021–2022 (e.r.)	Mean ± SD		Total (e.r.)	% of difference
1	Real Madrid CF	3.300.000	4.800.000	5.800.000	6.500.000	8.200.000	5.720.000	± 1.834.938,69	28.600.000	148,48
2	FC Barcelona	4.500.000	7.100.000	9.600.000	11.800.000	13.500.000	9.300.000	± 3.600.694,38	46.500.000	200
3	Atlético Madrid	134.800	212.700	263.000	304.000	331.000	249.100	± 77.949,15	1.245.500	145,55
4	Valencia CF	61.500	84.400	98.200	106.000	113.000	92.620	± 20.380,92	463.100	83,74
5	Sevilla FC	40.900	69.300	100.000	136.000	176.000	104.440	± 53.405,83	522.200	330,32
6	Real Sociedad	18.500	289.400	360.000	397.000	435.000	299.980	± 166.274,33	1.499.900	2.251,35
7	Athletic Club	30.600	25.800	42.900	53.400	58.300	42.200	± 14.041,55	211.000	90,52
8	Villarreal CF	25.000	31.600	36.100	261.000	254.000	121.540	± 12.4201,36	607.700	916
9	Real Betis Balompíe	153.000	39.300	57.900	66.800	79.300	79.260	± 43.720,40	396.300	48,17
10	RCD Espanyol	11.400	18.000	247.000	79.900	95.700	90.400	± 95.058,74	452.000	739,47
11	RC Celta Vigo	11.200	18.900	22.400	25.500	31.100	21.820	± 7.438,21	109.100	177,68
12	UD Almería	1.100	1.700	28.000	38.000	42.300	22.220	± 19.702,46	111.100	3.745,45
13	Real Valladolid CF	3.400	9.900	13.800	18.300	36.600	16.400	± 12.546,51	82.000	976,47
14	CA Osasuna	5.200	4.900	22.700	26.400	31.000	18.040	± 12.217,73	90.200	496,15
15	RCD Mallorca	3.100	10.000	15.300	24.300	46.000	19.740	± 16.597,08	98.700	1.383,87
17	Elche CF	3.300	5.900	7.400	18.800	21.900	11.460	± 8.319,44	57.300	563,64
18	Girona CF	3.700	4.200	5.300	8.300	10.400	6.380	± 2.870,02	31.900	181,08
19	Rayo Vallecano M	8.900	11.700	13.700	9.000	21.600	12.980	± 5.218,91	64.900	142,70
20	Getafe CF	3.800	5.400	7.800	11.100	10.100	7.640	± 3.074,57	38.200	165,79
21	Cádiz CF	-	-	14.700	15.400	13.400	14.500	± 1.014,89	43.500	-8,84
<i>Note:</i> FC. football club; (e.r.) refers to YouTube engagement rate; 'Total (e.r.)' refers to total of YouTube engagement across all seasons; 'Mean ± SD' refers to statistical mean and standard desviation; '% difference' refers to percentatge of difference between 2021–2022 and 2017–2018 season.										

Table 5
Total followers rate increased every season in all La Liga Football Clubs

Ranking position	Club's name	2017–2018 followers	2018–2019 followers	2019–2020 followers	2020–2021 followers	2021–2022 followers	Mean ± SD		Total followers
1	Real Madrid CF	268.800.000	280.500.000	301.300.000	322.100.000	367.300.000	308.000.000	± 38.900.771,20	1.540.000.000
2	FC Barcelona	242.800.000	254.100.000	282.900.000	311.500.000	342.700.000	286.800.000	± 41.095.620,20	1.434.000.000
3	Atlético Madrid	24.600.000	28.000.000	31.300.000	36.100.000	40.600.000	32.120.000	± 6.362.939,57	160.600.000
4	Valencia CF	5.400.000	6.100.000	6.800.000	7.200.000	7.700.000	6.640.000	± 907.193,47	33.200.000
5	Sevilla FC	3.600.000	3.900.000	4.400.000	5.700.000	7.100.000	4.940.000	± 145.0172,40	24.700.000
6	Real Sociedad	2400000	3.000.000	3.500.000	4.000.000	5200000	3.620.000	± 106.3954,89	1.8100.000
7	Athletic Club	2.400.000	2.700.000	3.000.000	3.700.000	4.900.000	3.340.000	± 996.493,85	1.6700.000
8	Villarreal CF	2.400.000	2.600.000	3.000.000	3.600.000	4.600.000	3.240.000	± 887.693,64	1.6200.000
9	Real Betis Balompié	2.200.000	2.300.000	2.500.000	3.600.000	4.000.000	2.920.000	± 822.800,10	14.600.000
10	RCD Espanyol	2.000.000	2.000.000	2.200.000	3.000.000	3.500.000	2.540.000	± 676.756,97	12.700.000
11	RC Celta Vigo	1.000.000	1.200.000	2.100.000	2.300.000	2.700.000	1.860.000	± 730.068,49	9.300.000
12	UD Almería	950.100	957.800	13.00.000	1.600.000	1.900.000	1.341.580	± 412.579,19	6.707.900
13	Real Valladolid CF	781.200	695.500	819.300	953.500	1.500.000	949.900	± 321.270,28	4.749.500
14	CA Osasuna	648.100	679.700	813.800	880.100	1.500.000	904.340	± 346.308,38	4.521.700
15	RCD Mallorca	630.500	588.900	689.000	866.300	1.000.000	754.940	± 173.102,67	3.774.700
17	Elche CF	491.500	582.900	593.500	820.600	948.600	687.420	± 189.790,64	3.437.100
18	Girona CF	474.200	505.800	543.500	684.700	881.300	617.900	± 167.774,60	3.089.500
19	Rayo Vallecano M	419.500	479.900	497.400	653.800	763.700	562.860	± 141.709,43	2.814.300
20	Getafe CF	225.100	299.800	432.900	531.300	728.500	443.520	± 198.364,85	2.217.600
21	Cádiz CF	225.000	273.500	402.800	526.900	607.300	407.100	± 162.372,98	2.035.500
<i>Note:</i> FC. football club; 'Total (e.r.)' refers to total of followers across all seasons; 'Mean ± SD' refers to statistical mean and standard desviations; '% differer to percentatge of difference between 2021–2022 and 2017–2018 season.									

Table 6
Total posts rate increased every season in all La Liga Football Clubs

Ranking position	Club's name	2017–2018 posts	2018–2019 posts	2019–2020 posts	2020–2021 posts	2021–2022 posts	Mean ± SD		Total posts	% of difference
1	Real Madrid CF	62.500.000	49.600.000	43.400.000	53.000.000	58.300.000	53.360.000	± 7.439.959,68	266.800.000	-6,72
2	FC Barcelona	23.700.000	20.900.000	20.700.000	30.400.000	45.800.000	28.300.000	± 10.539.686,90	141.500.000	93,25
3	Atlético Madrid	15.600.000	14.200.000	16.400.000	17.100.000	20.300.000	16.720.000	± 2.273.103,61	83.600.000	30,13
4	Valencia CF	14.800.000	17.500.000	13.900.000	23.200.000	16.400.000	17.160.000	± 3.652.807,14	85.800.000	10,81
5	Sevilla FC	22.100.000	42.500.000	29.400.000	14.500.000	22.400.000	26.180.000	± 10.536.460,51	130.900.000	1,36
6	Real Sociedad	37.900.000	403.00.000	20.700.000	23.300.000	25.100.000	29.460.000	± 8.978.195,81	147.300.000	-33,77
7	Athletic Club	51.600.000	47.100.000	24.600.000	27.400.000	60.600.000	42.260.000	± 15.650.175,72	211.300.000	17,44
8	Villarreal CF	6.600.000	12.500.000	32.500.000	50.500.000	17.100.000	23.840.000	± 17.727.041,49	119.200.000	159,09
9	Real Betis Balompié	6.900.000	15.300.000	14.900.000	23.500.000	19.900.000	16.100.000	± 6.243.396,51	80.500.000	188,41
10	RCD Espanyol	46.200.000	8.800.000	8.500.000	17.900.000	27.100.000	21.700.000	± 15.688.371,49	108.500.000	-41,34
11	RC Celta Vigo	9.400.000	7.400.000	18.500.000	9.000.000	12.300.000	11.320.000	± 4.386.000,46	56.600.000	30,85
12	UD Almería	10.000.000	43.800.000	29.900.000	15.700.000	19.500.000	23.780.000	± 13.339.302,83	118.900.000	95
13	Real Valladolid CF	11.200.000	9.800.000	6.900.000	17.200.000	5.500.000	10.120.000	± 4.558.179,46	50.600.000	-50,89
14	CA Osasuna	13.200.000	7.100.000	11.300.000	14.500.000	9.000.000	11.020.000	± 3.016.123,34	55.100.000	-31,82
15	RCD Mallorca	7.900.000	7.700.000	8.700.000	8.800.000	11.600.000	8.940.000	± 1.563.009,92	44.700.000	46,84
17	Elche CF	7.900.000	14.500.000	13.600.000	5.800.000	6.200.000	9.600.000	± 4.150.301,19	48.000.000	-21,52
18	Girona CF	12.700.000	10.800.000	6.100.000	6.800.000	6.000.000	8.480.000	± 3.075.223,57	42.400.000	-52,76
19	Rayo Vallecano M	5.700.000	6.300.000	6.200.000	5.600.000	6.600.000	6.080.000	± 420.713,68	30.400.000	15,79
20	Getafe CF	6.600.000	5.500.000	9.000.000	7.000.000	16.800.000	8.980.000	± 4.551.043,84	44.900.000	154,55
21	Cádiz CF	6.100.000	7.000.000	7.200.000	4.600.000	5.200.000	6.020.000	± 1.123.387,73	30.100.000	-14,75
<i>Note:</i> FC. football club; 'Total posts' refers to total of posts across all seasons; 'Mean ± SD' refers to statistical mean and standard desviation; '% difference' refers to percentatge of difference between 2021–2022 and 2017–2018 season.										

On the one hand, a repeated measures ANOVA with data from engagement in the different social networks -Facebook, X, Instagram and YouTube- reveled significant differences between seasons ($F = 5,49, p = 0,01^*, \eta^2 = 0,26$, $F = 7,08, p = 0,001^{**}, \eta^2 = 0,31$, $F = 5,49, p = 0,01^*, \eta^2 = 0,26$ and $F = 4,23, p = 0,03^*, \eta^2 = 0,21$, respectively). In particular, Instagram show differences across all the seasons ($p = 0,01^*$ and $p = 0,001^{**}$), except 2020-21 and 2021-22. On the contrary, YouTube just show differences between season 2017-18 and 2021-22 ($p = 0,03^*$), 2018-19 and 2020-21 ($p = 0,01^*$) and 2018-19 and 2021-22 ($p = 0,001^{**}$) (see Table 7 for more information).

Table 7
Repeated ANOVA and paired comparisons of social networks across all seasons

Paired comparisons											
	A Vs B	2017– 2018 Vs 2019– 2020	2017– 2018 Vs 2020– 2021	2017– 2018 Vs 2021– 2022	2018– 2019 Vs 2019– 2020	2018– 2019 Vs 2020– 2021	2018– 2019 Vs 2021– 2022	2019– 2020 Vs 2020– 2021	2019– 2020 Vs 2021– 2022	2020– 2021 Vs 2021– 2022	
Facebook	$F = 5,49$, $p = 0,01^*$, $\eta^2 = 0,26$	$p = 0,89$ $d = -0,01$	$p = 0,41$ $d = -0,04$	$p = 0,06$ $d = -0,12$	$p = 0,02^*$ $d = -0,19$	$p = 0,14$ $d = -0,03$	$p = 0,05^*$ $d = -0,11$	$p = 0,01^*$ $d = -0,18$	$p = 0,05$ $d = -0,08$	$p = 0,01^*$ $d = -0,15$	$p = 0,04^*$ $d = -0,07$
X	$F = 7,08$, $p = 0,01^{**}$, $\eta^2 = 0,31$	$p = 0,17$ $d = -0,11$	$p = 0,03^*$ $d = -0,27$	$p = 0,02^*$ $d = -0,39$	$p = 0,01^{**}$ $d = -0,52$	$p = 0,06$ $d = -0,16$	$p = 0,05^*$ $d = -0,28$	$p = 0,01^*$ $d = -0,41$	$p = 0,25$ $d = -0,12$	$p = 0,01^*$ $d = -0,25$	$p = 0,03^*$ $d = -0,13$
Instagram	$F = 5,49$, $p = 0,01^*$, $\eta^2 = 0,26$	$p = 0,01^{**}$ $d = -0,42$	$p = 0,01^{**}$ $d = -0,72$	$p = 0,01^{**}$ $d = -0,90$	$p = 0,01^{**}$ $d = -1,20$	$p = 0,01^*$ $d = -0,36$	$p = 0,01^{**}$ $d = -0,61$	$p = 0,01^{**}$ $d = -0,82$	$p = 0,01^{**}$ $d = -0,29$	$p = 0,01^*$ $d = -0,41$	$p = 0,72$ $d = -0,06$
YouTube	$F = 4,23$, $p = 0,03^*$, $\eta^2 = 0,21$	$p = 0,42$ $d = -0,26$	$p = 0,11$ $d = -0,57$	$p = 0,06$ $d = -0,68$	$p = 0,03^*$ $d = -0,78$	$p = 0,07$ $d = -0,32$	$p = 0,01^*$ $d = -0,44$	$p = 0,01^{**}$ $d = -0,54$	$p = 0,50$ $d = -0,12$	$p = 0,20$ $d = -0,22$	$p = 0,01^{**}$ $d = -0,10$
<i>Note:</i> Denotes significance at $p < 0,05$ and ** denotes significance at $p < 0,01$; Effect size indicator is noted as $d = 0,20$ indicating a small effect, $d = 0,50$ indicating a medium effect, and $d = 0,80$ indicating a large effect.											

Furthermore, a repeated measures ANOVA with data from followers revealed significant differences between seasons ($F = 24,44$, $p = 0,001^{**}$, $\eta^2 = 0,65$). Planned comparisons show differences specifically between season 2017–2018 and 2018–2019 ($p = 0,01^*$, $d = -0,10$) (see Table 8 for more information).

By contrary, a repeated measures ANOVA with data from posts revealed no significant differences between seasons ($F = 0,18$, $p = 0,88$, $\eta^2 = 0,01$). In all cases there was no differences between seasons ($p > 0,05$) (see Table 9 for more information).

Table 8

Paired comparisons											
		2017– 2018 Vs 2018– 2019	2017– 2018 Vs 2019– 2020	2017– 2018 Vs 2020– 2021	2017– 2018 Vs 2021– 2022	2018– 2019 Vs 2019– 2020	2018– 2019 Vs 2020– 2021	2018– 2019 Vs 2021– 2022	2019– 2020 Vs 2020– 2021	2019– 2020 Vs 2021– 2022	2020– 2021 Vs 2021– 2022
Follow	$F = 24,44$, $p = 0,01^{**}$, $\eta^2 = 0,65$	$p = 0,01^*$ $d = -0,10$	$p = 0,01^{**}$ $d = -0,27$	$p = 0,01^{**}$ $d = -0,49$	$p = 0,01^{**}$ $d = -0,72$	$p = 0,01^{**}$ $d = -0,17$	$p = 0,01^{**}$ $d = -0,38$	$p = 0,01^{**}$ $d = -0,61$	$p = 0,01^{**}$ $d = -0,22$	$p = 0,01^{**}$ $d = -0,46$	$p = 0,01^{**}$ $d = -0,24$

Repeated ANOVA and paired comparisons of total followers across all seasons

Note

Denotes significance at $p < 0,05$ and ** denotes significance at $p < 0,01$; Effect size indicator is noted as $d = 0,20$ indicating a small effect, $d = 0,50$ indicating a medium effect, and $d = 0,80$ indicating a large effect.

Table 9
Repeated ANOVA and paired comparisons of total posts across all seasons

Paired comparisons											
	Repeated Measures ANOVA	2017– 2018 Vs 2018– 2019	2017– 2018 Vs 2019– 2020	2017– 2018 Vs 2020– 2021	2017– 2018 Vs 2021– 2022	2018– 2019 Vs 2019– 2020	2018– 2019 Vs 2020– 2021	2018– 2019 Vs 2021– 2022	2019– 2020 Vs 2020– 2021	2019– 2020 Vs 2021– 2022	2020– 2021 Vs 2021– 2022
Follow	$F = 0,18$, $p = 0,88$, $\eta^2 = 0,01$	$p = 0,65$ $d = -0,11$	$p = 0,07$ $d = 0,82$	$p = 0,98$ $d = 0,01$	$p = 0,77$ $d = -0,04$	$p = 0,34$ $d = 0,20$	$p = 0,67$ $d = 0,13$	$p = 0,73$, $d = 0,07$	$p = 0,7$ $d = -0,08$	$p = 0,61$ $d = -0,13$	$p = 0,83$ $d = -0,06$
<i>Note:</i> Denotes significance at $p < 0,05$ and ** denotes significance at $p < 0,01$; Effect size indicator is noted as $d = 0,20$ indicating a small effect, $d = 0,50$ indicating a medium effect, and $d = 0,80$ indicating a large effect.											

Posteriorly, a correlation analysis was performed to examine the relationship between total of follows and total of posts. Thus, a moderate positive correlation exists between total of follows and total of posts from 2019–2020 in ahead ($p < 0,05$ in all cases). Related to engagement and follows and engagement and posts it is also shown a moderate positive correlation on Instagram and YouTube from 2019–2020 in ahead ($p < 0,05$ in both cases).

Table 10
Correlation between total followers and total posts across all seasons

		2017–2018	2018–2019	2019–2020	2020–2021	2021–2022
Correlation	Followers and Post	$r = 0,38, p = 0,13$	$r = 0,46, p = 0,06$	$r = 0,50, p = 0,04^*$	$r = 0,57, p = 0,02^*$	$r = 0,54, p = 0,03^*$
Regression				$F = 4,94$	$F = 4,94$	$F = 4,94$
				$r^2 = 0,25$	$r^2 = 0,25$	$r^2 = 0,25$
				r^2 corrected = 0,20	r^2 corrected = 0,20	r^2 corrected = 0,20
				SE = 8.036.695,30	SE = 8.036.695,30	SE = 8.036.695,30
				$p = 0,04^*$	$p = 0,04^*$	$p = 0,04^*$

Note: Denotes significance at $p < 0,05$ and $**$ denotes significance at $p < 0,01$; Effect size indicator is noted as $d = 0,20$ indicating a small effect, $d = 0,50$ indicating a medium effect, and $d = 0,80$ indicating a large effect; The magnitudes of these correlations: $r \leq 0,1$ as trivial; $0,1 < r \leq 0,3$ as small; $0,3 < r \leq 0,5$ as moderate; $0,5 < r \leq 0,7$ as large; $0,7 < r \leq 0,9$ as very large; and $r > 0,9$ as almost perfect.

Table 11
Correlation between engagement, follow, and engagement and post on Facebook, X, Instagram and YouTube

		Facebook	X	Instagram	YouTube
Correlation	Engagement and follow	$r = 0,97, p = 0$	$r = 0,98, p = 0$	$r = 0,92, p = 0^*$	$r = 0,61, p = 0,01^*$
Regression		$F = 272,26$	$F = 337,19$	$F = 83,95$	$F = 9,01$
		$r^2 = 0,95$	$r^2 = 0,96$	$r^2 = 0,85$	$r^2 = 0,38$
		r^2 corrected = 0,94	r^2 corrected = 0,95	r^2 corrected = 0,84	r^2 corrected = 0,33
		SE = 2.128.337,18	SE = 1.922.167,51	SE = 3.626.329,13	SE = 7.362.146,51
		$p = 0^*$	$p = 0^*$	$p = 0^*$	$p = 0,01^*$
Correlation	Engagement and Post	$r = 0,49, p = 0,04$	$r = 0,59, p = 0,01$	$r = 0,72, p = 0^*$	$r = 0,56, p = 0,02^*$
Regression		$F = 4,78$	$F = 8,03$	$F = 15,72$	$F = 6,92$
		$r^2 = 0,24$	$r^2 = 0,35$	$r^2 = 0,51$	$r^2 = 0,32$
		r^2 corrected = 0,19	r^2 corrected = 0,31	r^2 corrected = 0,48	r^2 corrected = 0,27
		SE = 44.984.362,60	SE = 41.689.961,21	SE = 36.099.856,79	SE = 42.734.649,16
		$p = 0,04^*$	$p = 0,01^*$	$p = 0^*$	$p = 0,02^*$

Note: Denotes significance at $p < 0,05$ and $**$ denotes significance at $p < 0,01$; Effect size indicator is noted as $d = 0,20$ indicating a small effect, $d = 0,50$ indicating a medium effect, and $d = 0,80$ indicating a large effect; The magnitudes of these correlations: $r \leq 0,1$ as trivial; $0,1 < r \leq 0,3$ as small; $0,3 < r \leq 0,5$ as moderate; $0,5 < r \leq 0,7$ as large; $0,7 < r \leq 0,9$ as very large; and $r > 0,9$ as almost perfect.

In addition, in agreement with the correlation analysis, a multiple regression analysis was performed to analyze the association between the variables total of *follows* and total of *posts*, revealing significant effects ($R^2 = 0,39$). Moreover, the association between total followers and engagement on Instagram ($R^2 = 0,85$), Facebook ($R^2 = 0,95$), X ($R^2 = 0,96$), and YouTube ($R^2 = 0,38$) also revealed significant effects (see Fig. 2). Finally, the results also shown a significant effect between engagement on Instagram ($R^2 = 0,51$), Facebook ($R^2 = 0,24$), X ($R^2 = 0,35$), and YouTube ($R^2 = 0,32$) and number of posts (see Fig. 3).

Discussion

The emergence of social media has fundamentally transformed the manner in which sports organizations connect with their fans, fostering a dynamic landscape where interaction and communication are more readily accessible than ever before. In fact, as Abeza (2023) indicates, the increasing trend in the number of articles reflects a rising awareness and acknowledgment of the importance of social media within the field of sports studies. Thus, the present study focus on discuss explores the results of an analysis examining social media engagement among La Liga clubs over the past five seasons. It emphasizes the relationship between engagement levels on platforms such as Instagram, Facebook, X and YouTube, and investigates how these engagement metrics correlate with follower counts and posting frequency.

Social media platforms have become indispensable tools for sports organizations seeking to engage with their fan base. The capacity for direct communication with fans enables clubs to cultivate a sense of community and belonging, which is vital in the fiercely competitive sports industry. As highlighted by Kumar (2015), social media engagement is closely associated with fan loyalty, which can lead to enhanced interaction, increased merchandise

sales, and overall financial success for these organizations. Conversely, other research, such as that conducted by Liadeli et al., (2023) and Abuljadail et al., (2019) suggests that social media engagement may not significantly enhance brand loyalty or drive sales.

In examining the engagement metrics across the four social media platforms, it became clear that each platform fulfills distinct roles and caters to different audiences. The results of the present study show that Instagram stand out as the premier platform for visual engagement having significant differences across all seasons ($F = 5.49, p = 0.01^*, \eta^2 = 0.26$) except 2020-21 and 2021-22, which strengthens the importance of clubs leveraging high-quality images and videos to attract fan attention. The platform's focus on visual content is particularly well-suited to the sports context, where highlights and player interactions can significantly enhance the fan experience. The findings of this study are consistent with those of Abeza et al. (2019), Machado et al. (2020), and Girsang (2021), which indicate that Instagram is the most widely utilized platform among sports organizations.

In contrast, the results shown significant difference across most of the seasons ($F = 7.08, p = 0.001^{**}, \eta^2 = 0.31$). Thus, X has been identified one of the most effective platforms for real-time engagement, aligning with the observations of Pergoraro (2010). Clubs that actively tweeted updates, engaged with fans, and responded to comments experienced a notable increase in engagement levels. This is further supported by the research of Vassio et al. (2022) and Watanabe et al. (2015), who emphasized that timely and relevant content is essential for sustaining fan interest and engagement on social networks. However, as Naraine et al., (2022) shows X being the least engaging social network compared to Facebook and Instagram.

Facebook, established in 2004, has evolved into the leading social networking site in terms of user numbers and engagement volume. This aligns with the results of the present study, which shows significant differences across the most current seasons ($F = 5.49, p = 0.01^*, \eta^2 = 0.26$). Its distinctive feature lies in the virality of its content, which includes match previews, player interviews, and community events, thereby reaching not only the fans but also their social circles (Oviedo-García et al., 2014). Consequently, clubs that effectively utilized Facebook for storytelling and community engagement reported higher levels of interaction. This underscores the notion that fans value content that transcends mere promotional efforts, seeking more profound connections with their clubs.

The results of the present study shown that YouTube just show differences between season 2017-18 and 2021-22 ($p = 0.03^*$), 2018-19 and 2020-21 ($p = 0.01^*$) and 2018-19 and 2021-22 ($p = 0.001^{**}$). Despite its vast user base and considerable influence as a video-sharing platform, YouTube it has not been a significant research focus within the field of social media in sport studies (Abeza, 2023). Furthermore, although not updated as frequently as other social media platforms, serves as a valuable medium for in-depth content, including match highlights, player documentaries, and fan-generated material. The analysis revealed that clubs with a strong presence on YouTube experienced increased engagement, particularly among younger audiences who favor video content. This observation is consistent with the findings of Roche (2003) and Van Dijck (2007), which underscore the rising significance of video content—beyond traditional television—in engaging fans, effectively positioning it as 'television 2.0'.

A primary objective of this study was to investigate the relationship between total engagement, posting frequency, and follower counts. The results indicated a positive correlation among these variables (season 2019-20 $r = 0.50, p = 0.04^*$; season 2020-21 $r = 0.57, p = 0.02^*$; and, season 2021-22 $r = 0.54, p = 0.03^*$), suggesting that clubs that post more frequently tend to attract a larger follower base. This aligns with the research conducted by Jensen et al., (2014), which emphasizes that consistent posting is essential for maintaining fan engagement and encouraging interaction. However, it is crucial to recognize that while posting frequency is significant, the quality of the content shared is equally important. Additionally, the results show a positive relation on Instagram ($r = 0.92, p = 0.00^*$) and on YouTube ($r = 0.61, p = 0.01^*$) between the engagement and total of followers. This is further reinforced by De Veirman et al., (2017) research, which highlighted that the size of a club's follower base can influence engagement as well; a larger follower count typically correlates with higher engagement rates, since more fans are exposed to the content being posted. Finally, examining the relationship between engagement and number of posts, the results shown a positive correlation, specifically on Instagram ($r = 0.72, p = 0.00^*$) and YouTube ($r = 0.56, p = 0.02^*$). Literature agree that clubs that prioritized the creation of meaningful and relevant content, rather than merely increasing the volume of posts, experienced greater engagement. Thus, Ballesteros-Herencia (2021) exposed that X has an average of 18.8 posts per day, while Instagram has an average of 6.6 posts per day and Facebook has an average of 5.7 posts per day. By contrary, as highlighted by Aldous et al. (2023), a higher frequency of posts on a particular topic does not necessarily guarantee an increase in likes and comments. This finding emphasizes the necessity for clubs to achieve a balance between quantity and quality in their social media strategies to effectively.

As it has been mentioned, in literature it seeks to explore the relationship and the effect between total engagement, post frequency, and follower counts (Herrera et al., 2018; De Vries et al., 2012). The results of the study shown an association between total of follows and total of posts ($r = 0.39, p = 0.01^*$). This aligns with Tafesse et al., (2022) study who exposed that the number of followers, post frequency, and modality type, were found to significantly impact follower engagement behavior.

Moreover, results revealed a positive regression between the engagement and the followers for Instagram ($r = 0.85, p = 0.00^*$), Facebook ($r = 0.95, p = 0.00^*$), X ($r = 0.96, p = 0.00^*$), and YouTube ($r = 0.38, p = 0.01^*$). The findings of this study corroborate this perspective, indicating that clubs with higher levels of engagement tend to enjoy more loyal fan bases, as demonstrated by increased interactions and positive sentiment in fan comments (Jain et al., 2023), achieving an increasing number of followers. To conclude, the results show a positive correlation and regression between number of posts and engagement for Instagram ($r = 0.51, p = 0.00^*$), Facebook ($r = 0.24, p = 0.04^*$), X ($r = 0.35, p = 0.01^*$), and YouTube ($r = 0.32, p = 0.02^*$). This is consistent with the findings of Herrera et al., (2018) exposed that the frequency of posts can have a significant impact on engagement levels. Clubs that follow a regular posting schedule are more likely to sustain audience engagement and attract new followers. In that context, most CSNs managers agree that highly engaged customers determine the sustainability of their CSNs (Zhou et al., 2013). Therefore, having a community of followers not only significantly contribute to content creation, but also recommending products or services, to other customers and increase sales (Kumar et al., 2015). Active participation in shaping a brand's identity transforms customers into passionate advocates. This sense of co-creation fosters genuine brand loyalty and drives authentic recommendations (Vollero, et

al., 2024). Furthermore, having a community of followers strengthen their reputation based on brand image and sponsorship (Gordillo-Rodriguez et al., 2024; He, et al., 2013).

While the findings of this study offer valuable insights into social media engagement among La Liga clubs, it is crucial to recognize the inherent challenges and limitations associated with this analysis. A primary challenge is the rapidly evolving nature of social media platforms and their algorithms, which can significantly affect engagement metrics. As these platforms change, previously effective strategies may become obsolete, necessitating ongoing adaptation by clubs. Furthermore, the study's emphasis on quantitative metrics may overlook qualitative dimensions of engagement, such as the emotional sentiment underlying fan interactions. Future research could benefit from integrating sentiment analysis to gain a more nuanced understanding of how fans perceive and respond to club content, thereby providing a more comprehensive perspective on engagement and its influence on fan loyalty.

The relevance of this topic is underscored by the substantial impact of social networks on communication between sports organizations and their audiences. Additionally, incorporating empirical data and case studies could enhance the validity of the arguments presented, offering concrete evidence that deepens the understanding of the subject matter. Finally, the ability to propose practical recommendations based on the study's findings could increase the article's utility for both practitioners and academics interested in the strategic application of social media.

Given the dynamic landscape of social media and its implications for sports marketing, future research should explore several key avenues. First, longitudinal studies that examine the long-term effects of social media engagement on fan loyalty and club performance would yield valuable insights. Understanding how engagement evolves over time and its correlation with on-field success could inform clubs' marketing strategies. Second, research should investigate the role of emerging social media platforms, such as TikTok, in enhancing sports engagement. As younger audiences increasingly gravitate toward these new platforms, clubs must adapt their strategies to effectively reach these demographics. Exploring how different platforms cater to various audience segments could further refine clubs' social media strategies. Lastly, examining the impact of social media engagement on revenue generation—such as ticket sales and merchandise purchases—would provide a more comprehensive understanding of the financial implications of social media strategies. As Halloran et al. (2021) exposed, customers who interacted with the brand on social media tended to buy more frequently. Thus, this research could assist clubs in justifying their investments in social media management and marketing.

The future prospects of this study on social media engagement among La Liga clubs present several promising avenues for exploration. One key area is the implementation of longitudinal research to assess the long-term effects of social media strategies on fan loyalty and club performance. Such studies could reveal how engagement evolves over time and its correlation with on-field success, providing valuable insights for clubs. Additionally, the rise of emerging platforms like TikTok necessitates research into how these channels can be effectively utilized to engage younger audiences, thereby refining clubs' social media strategies. Incorporating sentiment analysis into future research could further enhance understanding by examining the emotional responses behind fan interactions, offering a qualitative perspective that complements quantitative metrics. Moreover, exploring the financial implications of social media engagement, such as its impact on ticket sales and merchandise purchases, would help clubs justify their investments in digital marketing. Comparative studies across different leagues could also yield best practices, allowing clubs to learn from one another. Finally, understanding the influence of changing social media algorithms on engagement metrics will enable clubs to adapt their strategies effectively in an ever-evolving digital landscape, ultimately enhancing their brand presence and financial success.

Conclusion

The examination of social media engagement among La Liga clubs over the past five seasons underscores the pivotal role that social media plays in cultivating fan relationships and strengthening brand loyalty. The results emphasize the necessity of recognizing the distinct attributes of each platform and the importance of balancing posting frequency with the quality of content. As the sports industry undergoes continuous transformation, clubs must adopt flexible and adaptive social media strategies that leverage engagement to forge enduring connections with their fan base. By effectively implementing these strategies, clubs can not only enhance their brand visibility but also achieve financial success in an increasingly competitive environment.

Declarations

Disclosure statement

No potential conflict of interest was reported by the author(s).

Author Contribution

B. B., A. M. and P. A. B. wrote the main manuscript. E. G. y F. T. G. wrote statistic and results. All authors reviewed the manuscript.

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Figures

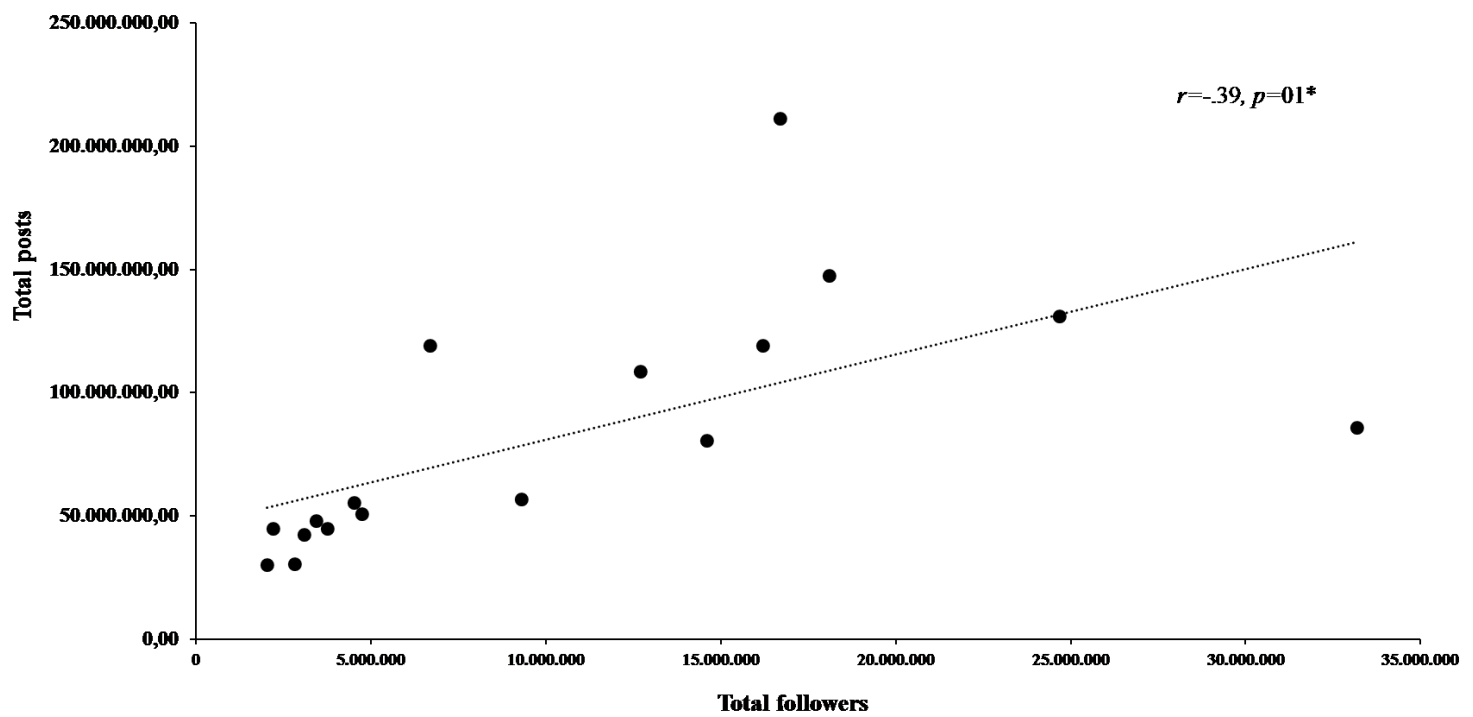


Figure 1

Regression between total followers and total posts

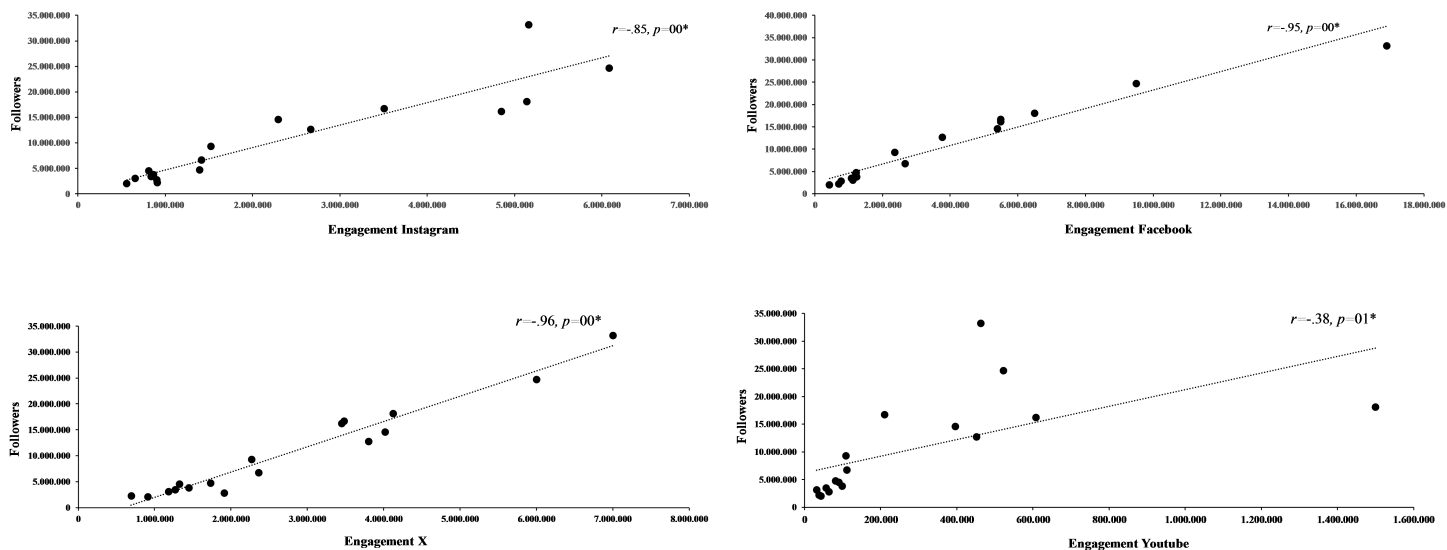


Figure 2

Representation of correlations between total followers and engagement on Instagram, Facebook, X and YouTube

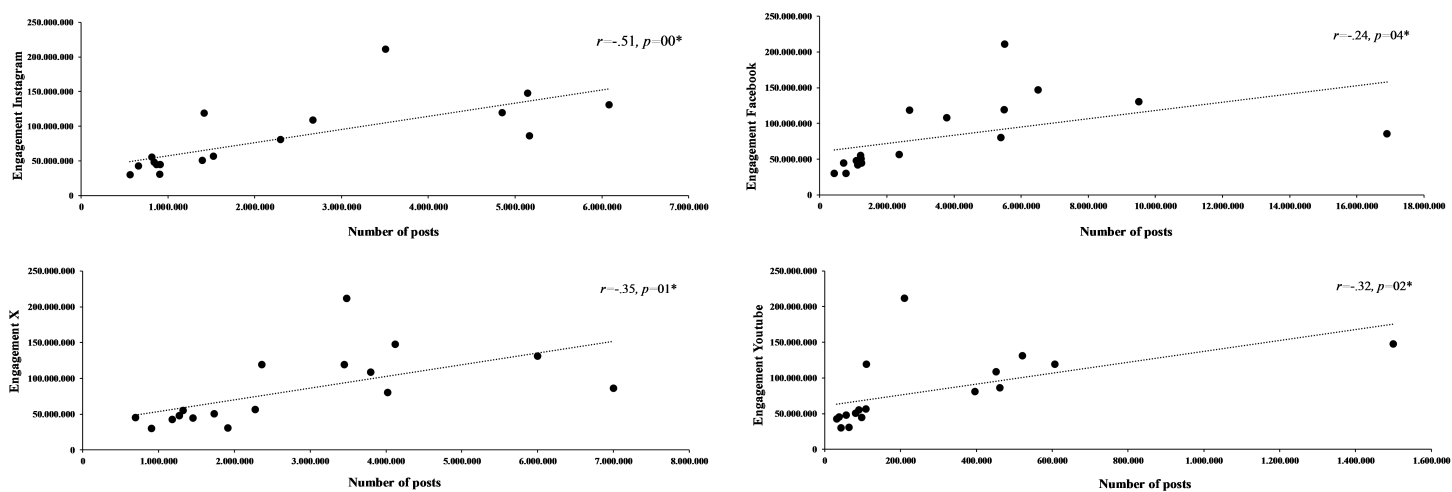


Figure 3

Representation of correlations between total posts and engagement on Instagram, Facebook, X and YouTube