

The Impact of Social Media Interaction on Sports Event Brand Loyalty: The Mediating Role of Fan Engagement

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This paper develops a conceptual framework in which fan engagement is theorised as a partial mediator of the relationship between social media interaction and sports event brand loyalty. Five propositions are advanced and stress-tested against three distinct empirical regimes: ongoing league competitions, recurring club tournaments, and quadrennial mega-events. The framework departs from the dominant treatment of engagement as the sole psychological mechanism by explicitly acknowledging competing mediators, and by introducing a moderated-mediation extension in which platform affordances and community management practices condition the strength of the engagement pathway. Comparative data across the NBA, the UEFA Champions League, the FIFA World Cup Qatar 2022, and the Paris 2024 Olympic Games reveal that aggregate engagement volume varies by more than two orders of magnitude across regimes, and that the proposed framework applies with greatest force to ongoing league contexts where fan identification is durable. The paper also examines whether the model, developed largely on Western data, retains explanatory power in the distinctive platform ecology of Chinese sports media. Cross-sectional evidence dominates the field but cannot adjudicate the endogeneity between engagement and loyalty; longitudinal and quasi-experimental designs are argued to be necessary next steps. Implications are drawn for theory, for managerial practice, and for the widespread industry preoccupation with follower counts as a proxy for brand strength.

Keywords: social media interaction, brand loyalty, fan engagement, sports events, moderated mediation, sports marketing

Introduction

The emergence of Web 2.0 platforms has fundamentally reconfigured the sports consumption experience. Where 20th-century sports marketing depended largely on one-way broadcast media, contemporary sports events unfold in an ecosystem in which fans, athletes, clubs, and event organisers co-produce meaning through continuous digital interaction (Kaplan & Haenlein, 2010; Filo, Lock, & Karg, 2015). The industrial scale of this transformation is difficult to overstate. Approximately five billion people engaged with the FIFA World Cup Qatar 2022 across all media, generating 5.95 billion social media engagements and 262 billion cumulative platform reach within a single month-long tournament (FIFA, 2023). The Paris 2024 Olympic Games registered a further 290 per cent increase in social media engagements over Tokyo 2020, with 412 billion aggregate engagements across 270 million posts on the five major platforms (IOC, 2024). Ongoing league competitions display comparably striking figures at seasonal cadence: @NBA alone generated an estimated 18 billion views

across social platforms during the 2022-2023 season, adding fourteen million new followers, more than 70 per cent of whom were located outside the United States.

These numbers matter not because reach itself constitutes brand equity, but because they represent a structural transformation in how brand relationships in sport are built, contested, and eroded. Against this backdrop, one theoretical question is particularly consequential. Does social media interaction, on its own, generate brand loyalty toward sports events, or does its influence operate through more proximate psychological mechanisms? This paper defends the latter position. It argues that fan engagement functions as a critical, though only partial, mediator that transforms interactional inputs into loyalty outcomes, and that the mediating pathway is itself conditioned by platform affordances and by the quality of community management.

Any mediation claim in this literature must nonetheless contend with three separate complications. The extant empirical work relies almost entirely on cross-sectional survey designs that are structurally incapable of establishing directionality between engagement and loyalty (Filo et al., 2015). Compounding this methodological weakness, the term “engagement” is deployed inconsistently, sometimes referring to prosocial advocacy and sometimes to obsessive or toxic attachment, only the former of which plausibly enhances loyalty. Perhaps most significantly for the readers of this paper, the theoretical models circulating in the literature have been developed almost exclusively on Western data drawn from Instagram, X, Facebook, and TikTok, and their generalisability to the Chinese platform ecology of Weibo, Douyin, and Xiaohongshu remains largely untested. Each of these tensions is developed as the argument unfolds.

The remainder of the paper proceeds as follows. Section 2 reviews the literature on the three focal constructs and identifies an unresolved tension in the operationalisation of engagement. Section 3 develops the theoretical framework, with the mediation claim subjected to a full counter-argument because it constitutes the theoretical core of the paper. Sections 4 and 5 present the conceptual model and proposed methodology respectively. Section 6 offers a comparative empirical analysis and three critical extensions, including a treatment of the Chinese sports media context. Sections 7 and 8 address implications and limitations.

Literature Review

Social Media Interaction in the Sports Context

Contemporary sports marketing operates within an interactive media environment that has systematically eroded the traditional broadcast paradigm. Social media, defined as Internet-based applications built on the technological foundations of Web 2.0 that enable the creation and exchange of user-generated content (Kaplan & Haenlein, 2010, p. 61), has enabled sport organisations to migrate from one-to-many communication toward a service-dominant, relationship-oriented logic in which value is co-produced by fans and organisations alike (Filo et al., 2015).

Social media interaction in this context is best understood as a bundle of communicative practices rather than a single behavioural construct. Four sub-dimensions are analytically useful: informational interaction (consumption of news, results, and behind-the-scenes content), interpersonal interaction (fan-to-fan communication), organisational interaction (direct exchange with the event brand account), and creative interaction (production and dissemination of user-generated content). These dimensions are neither independent nor sequential. A single fan may consume highlight content, react to another fan’s comment, receive an official reply, and produce their own reaction video within a single evening, illustrating the complex, multidimensional, and dynamic character of engagement in virtual brand communities (Brodie, Ilic, Juric, & Hollebeek, 2013; Santos, Correia, Biscaia, & Pegoraro, 2019).

Brand Loyalty in Sports Event Contexts

Brand loyalty has functioned as a cornerstone construct in marketing scholarship for at least three decades, positioned as a central pillar of brand equity alongside awareness, perceived quality, and associations (Aaker, 1991), and subsequently embedded within customer-based brand equity as a downstream consequence of favourable brand knowledge (Keller, 1993). The most theoretically consequential contribution, however, remains the four-stage decomposition of loyalty into cognitive, affective, conative, and action phases proposed by Oliver (1999), together with the accompanying argument that satisfaction, though a necessary condition, is manifestly insufficient for the deeply held commitment that characterises genuine loyalty.

The sports setting complicates loyalty in ways that consumer marketing does not fully anticipate. Sports fans exhibit an unusually high tolerance for negative product experiences, a phenomenon captured empirically in the performance tolerance dimension of the fan engagement scale (Yoshida, Gordon, Nakazawa, & Biscaia, 2014). The object of loyalty is also ontologically ambiguous, potentially referring to the athlete, the team, the league, or the event itself, a distinction that acquires particular importance in mega-event contexts as Section 6 will argue. A more theoretically pointed complication is that the widely assumed causal chain from engagement to loyalty is not the only chain the literature entertains. An alternative and equally influential model treats brand trust and brand affect as the true proximate antecedents of loyalty, with engagement functioning as a behavioural context rather than a psychological cause (Chaudhuri & Holbrook, 2001). This alternative will feature prominently in the counter-view developed in Section 3.

Fan Engagement as a Multidimensional Construct—and an Unresolved Tension

Two intellectual streams converge on the contemporary conceptualisation of fan engagement, though it is important to acknowledge that they do not converge cleanly. In the general customer engagement literature, engagement is treated as a multidimensional psychological state comprising cognitive, emotional, and behavioural components that emerges through interactive brand experiences (Brodie, Hollebeek, Jurić, & Ilić, 2011; Vivek, Beatty, & Morgan, 2012). The widely cited Consumer Brand Engagement (CBE) scale operationalises this state through cognitive processing, affection, and activation (Hollebeek, Glynn, & Brodie, 2014). Within sport management, meanwhile, the tradition has grown from foundational work on team identification (Wann & Branscombe, 1993) into the sport-specific Fan Engagement Scale (FES), which comprises management cooperation, prosocial behaviour, and performance tolerance in its original three-factor form (Yoshida et al., 2014), and six dimensions in the recently revalidated theory-based scale (Yoshida et al., 2024).

The tension between these two streams is more than terminological. The CBE scale measures a psychological state—what a consumer thinks and feels in the moment of brand interaction. The FES measures extra-role behaviours—what a fan does beyond the transactional exchange. Combining the two, as much of the applied literature routinely does, produces measurement models in which psychological states and observable behaviours are treated as interchangeable indicators of a single latent construct. This conflation is analytically problematic because it forecloses the empirical question of whether behaviour follows from psychological engagement or precedes it. The present paper adopts a working three-dimensional conceptualisation comprising cognitive engagement (attention and mental absorption), affective engagement (identification and emotional attachment), and behavioural engagement (interaction, advocacy, and co-creation). The underlying tension, however, is preserved for later methodological discussion rather than dissolved by fiat.

Theoretical Framework and Proposition Development

The framework advanced below is developed as a set of interrelated propositions. Four constitute the core mediation model; a fifth extends the model into a moderated-mediation form that accommodates the valence problem raised in Section 6. The mediation claim itself is subjected to a full counter-view because it is the theoretical centre of gravity of the paper and any weakness there compromises the entire framework. Counter-arguments to the other propositions are noted more briefly, either within the proposition text or by cross-reference to Section 6.

Social Media Interaction and Brand Loyalty

Two competing intuitions bear on the direct effect of social media interaction on brand loyalty. On one reading, sustained interaction maintains brand salience and provides continuous relational touchpoints that keep the event brand top-of-mind (Vivek et al., 2012). On another, exposure without accompanying psychological investment produces only surface-level familiarity, which the four-stage model of loyalty explicitly distinguishes from the deeply held commitment that constitutes genuine loyalty (Oliver, 1999). A more sceptical possibility deserves flagging: The observed correlation may reflect reverse causation, in which pre-existing loyalty drives fans to seek out and interact with brand content, rather than interaction generating loyalty as its downstream consequence. Cross-sectional data cannot adjudicate between these readings, and the direct pathway is therefore stated in a deliberately hedged form.

Social media interaction is positively associated with sports event brand loyalty, though the direct effect is expected to be weak, heterogeneous, and potentially confounded by reverse causation.

Social Media Interaction and Fan Engagement

Interactive digital environments furnish precisely the affordances that engagement theory identifies as its psychological substrate: continuous interactional opportunity, low-cost participation, and platforms for value co-creation (Van Doorn et al., 2010; Brodie et al., 2013). In the sports context, these general affordances manifest through three specific structural relations, namely fan-to-fan bonds, team-to-fan relationships, and fan co-creation, all of which appear to be activated in proportion to interactional intensity (Santos et al., 2019). The theoretical case for a positive interaction-engagement relationship is therefore both general and sport-specific, and it is the most robust of the three direct pathways in the proposed model.

A qualification is nonetheless appropriate. If engagement is understood as a state that is dynamically constructed through interaction, social media plausibly functions as an engagement generator. If it is understood instead as a relatively stable disposition rooted in prior socialisation and identification (Wann, 2006), social media functions as an amplifier that renders latent engagement observable. The two readings carry different managerial implications, since a generator conception implies increasing marginal returns to investment in social media reach while an amplifier conception implies diminishing returns as the pool of latent engagement approaches saturation. The proposition below is compatible with both readings.

Social media interaction is positively associated with fan engagement, whether by generating engagement states or by amplifying latent engagement dispositions.

Fan Engagement and Brand Loyalty

The engagement-loyalty relationship enjoys the strongest support in the empirical literature (Yoshida et al., 2014; Hollebeek et al., 2014; Santos et al., 2019). Its theoretical foundation is provided by the psychological

benefits of team identification, which have been shown to generate enduring attachments that resist erosion by competing brand offers (Wann, 2006), and by the community-level bulwarks against defection that emerge when fans develop shared consciousness, common rituals, and moral responsibility toward one another (Muniz & O'Guinn, 2001).

Fan engagement is positively associated with sports event brand loyalty.

The Mediating Role of Fan Engagement

The mediation claim is the theoretical heart of the paper. It rests on a two-step logic. Social media interaction is best conceived as an input to psychological processes rather than as a direct behavioural cause, supplying the raw material of content, contact, and community from which engagement is constructed. Brand loyalty, in turn, is best conceived as a downstream consequence of psychological investment, since a fan who is cognitively absorbed, affectively identified, and behaviourally active is more likely to remain committed than a fan whose interaction is passive. This two-step logic is consistent with the broader customer engagement literature, in which engagement is treated as conceptually distinct from and antecedent to loyalty (Vivek et al., 2012; Brodie et al., 2011). Because the direct pathway has been hedged into a weak-and-heterogeneous form, the proposition below is stated in partial-mediation rather than full-mediation form.

Fan engagement partially mediates the relationship between social media interaction and sports event brand loyalty.

Counter-view. The strongest challenge to this mediation claim is that it privileges engagement as *the* mediator when the literature more accurately positions engagement as *a* mediator among several plausible candidates. At least four competing mediators have credible theoretical and empirical support. Team identification, understood as a substantially trait-like psychological connection to the fan object, may mediate more of the interaction-loyalty relationship than engagement does, and does so through mechanisms of self-categorisation and social identity rather than through interactional behaviour (Wann, 2006). Brand trust and brand affect, in the chain-of-effects model, are argued to be the true proximate antecedents of loyalty, with engagement operating as a behavioural context within which trust and affect develop rather than as a psychological cause of loyalty in its own right (Chaudhuri & Holbrook, 2001). Parasocial relationships, cultivated through sustained one-sided exposure to athletes and event personalities on social media, have been shown to mediate the pathway from social media engagement to sports channel loyalty through the intermediating constructs of social presence and channel commitment (Lim, Hwang, Kim, & Biocca, 2015). Brand community identification, the psychological sense of belonging to a bounded community of fellow admirers, offers a further candidate whose mediating role has been documented across multiple product categories (Muniz & O'Guinn, 2001).

The methodological difficulty compounds the theoretical one. Even where cross-sectional evidence supports the interaction-engagement-loyalty structure, such evidence cannot establish the temporal precedence that mediation analysis logically requires. If loyalty precedes engagement in real time, then the observed mediation coefficient reflects a specification error rather than a causal mechanism. Nothing short of longitudinal panel data or a properly designed quasi-experiment can rule out this alternative (Filo et al., 2015). The mediation claim is therefore best read not as a claim that engagement is the mechanism through which interaction produces loyalty, but as a claim that engagement is a substantively important mediator whose empirical weight against competing mediators is an open question, and whose causal ordering awaits stronger designs than the field has typically deployed. This reading is more defensible than the stronger claim, and it is what the paper adopts.

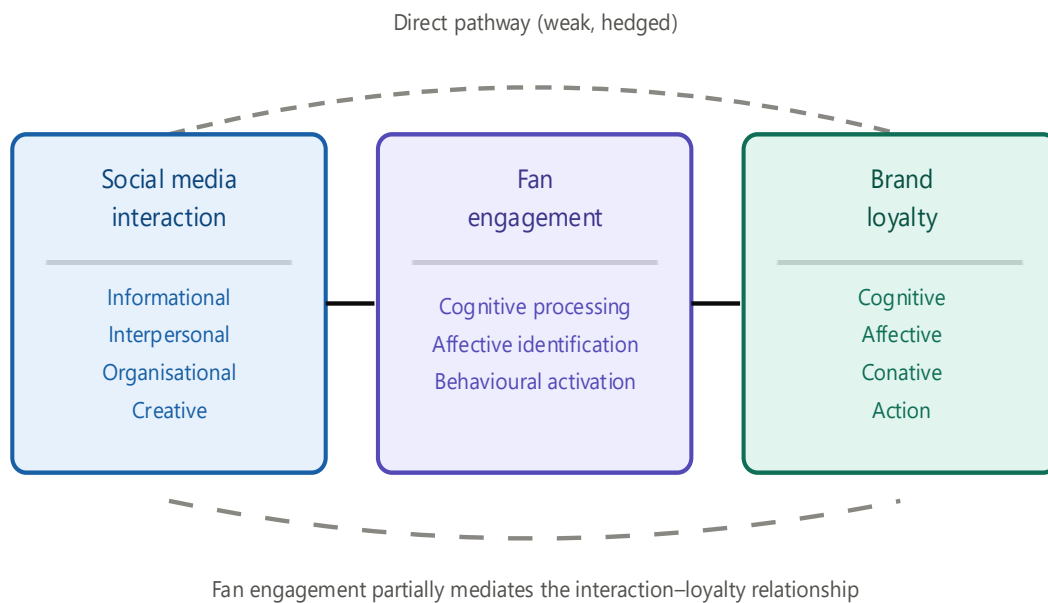
Moderated Mediation: Platform Affordances and Community Management

An assumption implicit in the core model is that engagement is affectively positive and prosocial in its effects on brand loyalty. This assumption is empirically questionable. Highly engaged fans are simultaneously the most valuable advocates and the most damaging sources of online abuse, obsessive attachment, and inter-community hostility (Hollebeek & Chen, 2014). The distinction between positively-valenced and negatively-valenced engagement matters because it implies that engagement volume, measured without regard to valence, will systematically obscure the true relationship with loyalty. Two moderating factors are theoretically consequential. The affordances of the platform on which interaction occurs, ranging from Instagram's visual and celebrity-oriented logic to X's argumentative pace and TikTok's algorithmic amplification of extreme content, shape the ratio of prosocial to toxic engagement in ways that are neither uniform nor incidental. The community management practices adopted by the event brand, including moderation policy, content curation, and codes of conduct, further condition whether high engagement translates into loyalty or into the reputational damage that erodes it.

The mediating effect of fan engagement on the relationship between social media interaction and brand loyalty is moderated by (a) platform affordances and (b) the intensity and quality of community management, such that the mediation is amplified under conditions favouring prosocial engagement and attenuated or reversed under conditions favouring toxic engagement.

The Conceptual Model

Figure 1 presents the core conceptual model corresponding to the four propositions developed above. Figure 3, in Section 6, presents the moderated-mediation extension.



Note. Solid arrows depict the mediation pathway; the dashed arrow depicts the direct pathway, hedged as weak. Fan engagement is a partial mediator alongside competing candidates including team identification, brand trust, and parasocial relationships.

Figure 1. Core conceptual model: Fan engagement as partial mediator.

Proposed Methodology and Operationalisation

Any empirical test of the proposed model must confront the well-documented weakness of cross-sectional self-report designs in this literature (Filo et al., 2015). The following approach is proposed as a starting point, with the acknowledgement that stronger designs are ultimately required. Table 1 summarises the constructs, their dimensions, seminal references, and suggested measurement approaches.

Table 1

Focal Constructs, Dimensions, and Measurement Approaches

Construct	Dimensions	Seminal reference(s)	Measurement approach	Illustrative items
Social media interaction (SMI)	Informational; interpersonal; organisational; creative	Kaplan & Haenlein (2010); Santos et al. (2019)	12-item scale adapted from Santos et al. (2019), 7-point Likert	"I read posts about the event on social media"; "I comment on other fans' posts"; "I produce and share content about the event"
Fan engagement (FE)	Cognitive processing; affective identification; behavioural activation	Hollebeek et al. (2014); Yoshida et al. (2014, 2024)	CBE scale (10 items) integrated with FES (12 items); construct-level tension acknowledged	"I think about the event a great deal when interacting online"; "I feel proud to be a fan of the event"
Brand loyalty (BL)	Cognitive; affective; conative; action	Oliver (1999); Aaker (1991); Keller (1993)	Adapted from Oliver (1999) four-stage measurement	"This event has features superior to competing events"; "I intend to attend this event again"
Moderators	Platform affordances; community management intensity	Kaplan & Haenlein (2010); Hollebeek & Chen (2014)	Platform categorical variable; community management index	Platform type; moderation policy strictness; frequency of official brand replies
Control variables	Team identification; fan tenure; age; gender	Wann & Branscombe (1993); Wann (2006)	Sport Spectator Identification Scale (SSIS); demographic items	7-item SSIS; standard demographics

Note. CBE = Consumer Brand Engagement scale (Hollebeek, Glynn, & Brodie, 2014). FES = Fan Engagement Scale (Yoshida, Gordon, Nakazawa, & Biscaia, 2014; revalidated in Yoshida et al., 2024). SSIS = Sport Spectator Identification Scale (Wann & Branscombe, 1993). All measurement items are illustrative and are adapted from the cited sources; final scale composition should be determined through pilot testing and confirmatory factor analysis.

Structural equation modelling is proposed for hypothesis testing, with bootstrap procedures using at least 5,000 resamples to generate bias-corrected confidence intervals for the indirect effect. Moderated mediation should be tested through the conditional indirect effect estimation procedures now standard in the mediation literature.

Two methodological cautions are non-negotiable for any serious empirical test of this framework. The cross-sectional single-source survey that dominates the field is inadequate to the causal claims being made. Longitudinal panel designs that measure interaction at t_1 , engagement at t_2 , and loyalty at t_3 are a minimum requirement for establishing temporal precedence. Stronger designs are also possible, and a quasi-experimental approach that exploits exogenous variation in social media exposure, such as a natural experiment created by a platform algorithm change or a coordinated event-brand social media relaunch, would represent a substantially more rigorous test of the causal claim than the standard survey design permits. Alongside this design-level concern, common-method bias must be treated as a first-order threat rather than a residual afterthought. Procedural remedies including temporal separation of predictor and outcome measurements, multi-source data collection, and marker-variable techniques should be planned into the design at the outset. The cost of these design choices is real, but it is the price of moving the field beyond the associative claims that current evidence supports toward the causal claims that current theory implies.

Critical Discussion

Ongoing Leagues Versus Mega-Events: A Comparative Analysis

The extant literature has focused disproportionately on ongoing league competitions where fans engage repeatedly across long seasons and where team identification functions as a stable psychological anchor. Mega-events such as the FIFA World Cup and the Olympic Games operate under fundamentally different conditions. They occur quadrennially, they draw audiences whose engagement horizon is compressed into a matter of weeks, and they attract a substantial share of viewers whose pre-existing loyalty to the event brand is weak or absent. The proposed model must be evaluated against both regimes.

Figure 2 presents comparative engagement data across three distinct regimes, using a logarithmic scale to accommodate the substantial differences in magnitude.

Three implications for the proposed framework follow from these data. The scale of mega-event engagement is qualitatively different from ongoing league engagement, exceeding the seasonal totals of even the largest ongoing leagues by more than an order of magnitude within a single tournament window. Any theoretical framework calibrated on ongoing-league data may not accommodate mega-event dynamics without substantial modification. Beyond the scale question, the object of brand loyalty itself is more ambiguous in mega-event contexts. A fan who followed the 2022 World Cup on Instagram may have been loyal to Argentina, to Messi as an athlete brand, to the tournament brand, to football as a sport, or to none of these in any deep sense. Since the object of loyalty is unclear, the engagement-loyalty relationship becomes correspondingly unclear, which weakens both the engagement-loyalty and mediation claims in mega-event applications. Perhaps most striking of all, mega-event data expose the limits of the interaction-engagement pathway in an instructive way. During the Paris 2024 Olympic Games, Snoop Dogg emerged as one of the most engaged-with figures on Olympic social media, generating greater engagement and reach than several high-profile athletes. This finding is anomalous for any model that treats social media interaction as producing sport-specific fan engagement. The Snoop Dogg case suggests that mega-event engagement is often celebrity-mediated and narrative-driven rather than sport-mediated, which complicates the assumption that the interaction-engagement pathway operates through a purely sport-focused psychological mechanism. The model applies with greatest force to ongoing league contexts where fan identification is durable, and its explanatory power weakens in mega-event contexts where identification objects are diffuse and celebrity mediation is prominent.

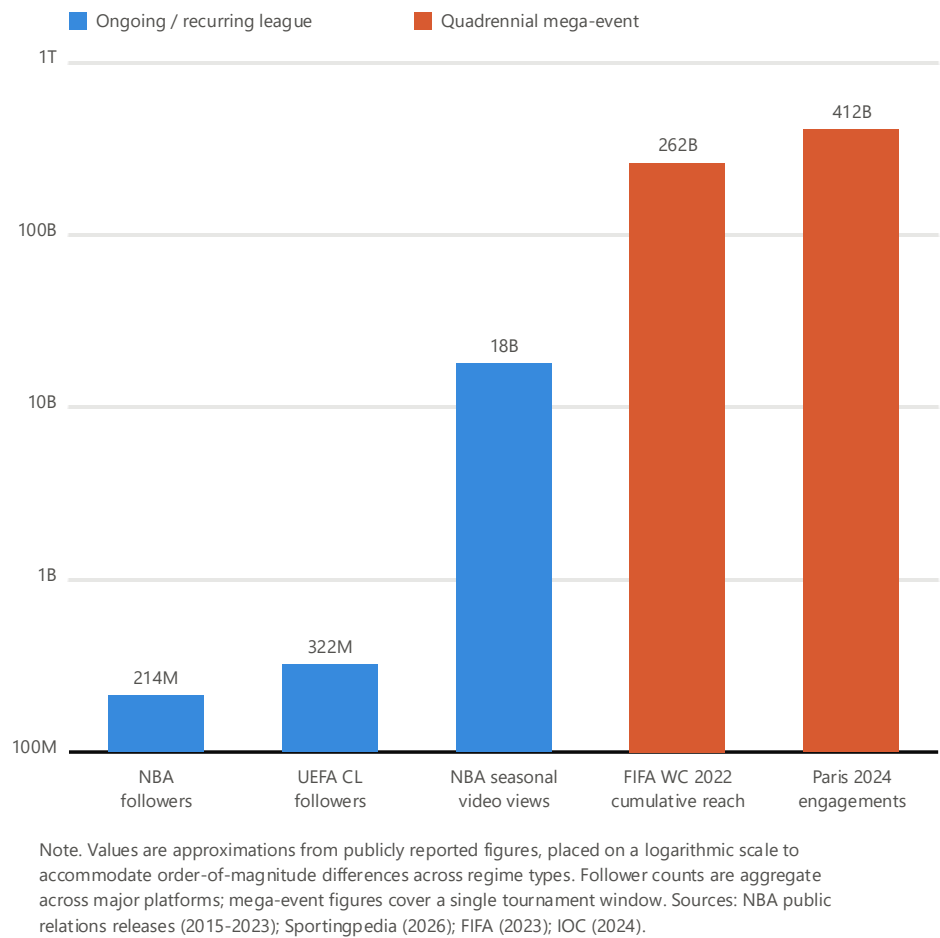


Figure 2. Aggregate social media engagement across different sports event regimes.

Platform Heterogeneity as a Boundary Condition

A further critical qualification concerns the treatment of “social media” as a unitary construct. The affordances of Instagram, X, TikTok, YouTube, Weibo, Xiaohongshu, and Douyin differ substantially in ways that shape the relationships specified in the model. Instagram’s visual and celebrity-oriented logic privileges parasocial engagement with athletes and event ambassadors, which likely strengthens the parasocial mediation pathway relative to the community mediation pathway. X favours argumentative and rapid-response interaction, which increases both the visibility of prosocial advocacy and the frequency of toxic exchange, making the moderating role of community management particularly consequential on this platform. TikTok’s algorithmic amplification of high-arousal content tends to prioritise moments and personalities over sustained brand narratives, further weakening the connection between engagement and durable loyalty. The extended moderated-mediation model (Figure 3) treats platform affordances as a formal moderator, but the deeper implication is that the model’s parameters should not be assumed to be invariant across platforms.

The Chinese Sports Media Context

The literature on which the proposed model rests has been developed almost entirely on data from North America, Western Europe, and, more recently, Anglophone Asia-Pacific. Its transferability to the Chinese sports media environment is not obvious. Three features of the Chinese context deserve explicit attention.

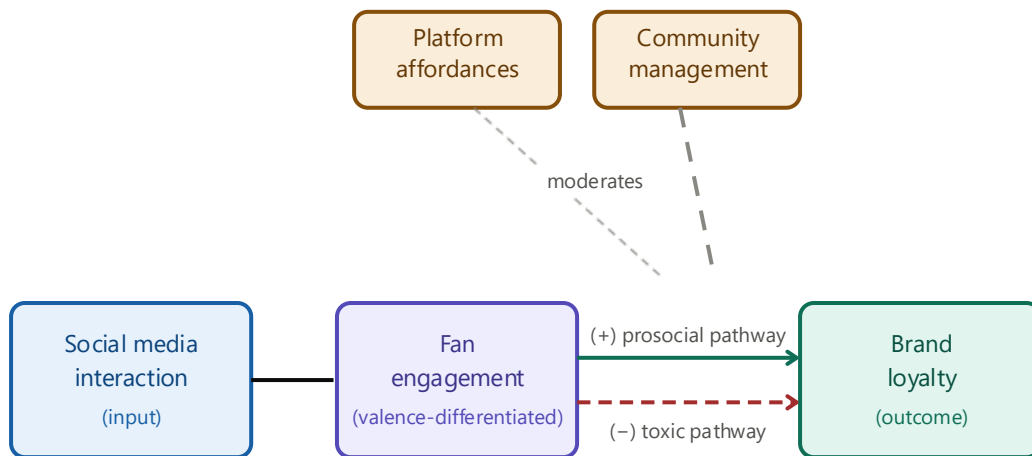
The platform ecology itself differs materially. Weibo functions less as a peer-to-peer network in the manner of X and more as a broadcast platform structured around celebrity accounts and topic-based hot searches. Xiaohongshu has emerged as a significant source of sports consumption information, particularly for lifestyle sports and event-attendance decision-making, occupying a niche without a clear Western analogue. Douyin's short-form, algorithmically curated content generates engagement patterns closer to TikTok than to Instagram, but with a distinctive local content ecosystem shaped by domestic athletes and events. These structural differences imply that the social media interaction construct requires distinct operationalisation in Chinese studies, and that findings drawn from Western platforms should not be extrapolated without empirical warrant.

Alongside these platform differences, the relative weight of identification objects differs. In many Western contexts, club identification substantially exceeds national identification for domestic league fans, whereas in the Chinese context national representation, particularly in mega-event contexts, often carries greater psychological weight than any single club. The implication for the mediation framework is that team identification, treated in the Western literature as the principal alternative mediator to fan engagement, may take a national or state-symbolic form in the Chinese context, which alters the empirical structure of the competing-mediators problem.

A final structural difference concerns moderation regimes. Chinese platforms operate under stricter content moderation than most Western equivalents, which mechanically reduces the incidence of the toxic engagement patterns that motivate the moderated-mediation extension. This does not eliminate the moderating role of community management but does shift its empirical range. The proposed framework can, in principle, be tested in the Chinese context, but doing so requires taking seriously the possibility that its parameters, and not merely its variable values, will differ from those observed in Western settings.

Moderated Mediation: The Extended Model

Figure 3 presents the extended conceptual model incorporating the moderated-mediation extension.



Note. Dashed arrows from moderator boxes signify moderation. The prosocial pathway (green solid) enhances loyalty; the toxic pathway (red dashed) erodes it. Moderators jointly determine which pathway dominates in any given context.

Figure 3. Moderated mediation model with platform and community management moderators.

The extended model formalises several insights that the core model can only gesture toward. Engagement is valence-differentiated rather than uniformly positive. The mediating effect of engagement on loyalty is

conditioned by contextual factors rather than uniform across settings. Managerial levers such as moderation policy and platform choice are not epiphenomenal but substantively shape the parameters of the mediation.

Implications

Theoretical Implications

The paper contributes to sports marketing scholarship by consolidating a fragmented literature into a single mediation framework and, more importantly, by insisting on the intellectual honesty required to state the framework in its partial rather than exclusive form. Fan engagement is defended as a substantively important mediator, but not as the sole mechanism through which social media interaction shapes brand loyalty. This positioning invites future empirical work to compare mediators on comparable data rather than treating each as if it operated in isolation. The paper also introduces the moderated-mediation extension, which offers a more nuanced account of the conditions under which engagement enhances or erodes event brand equity.

Managerial Implications

For event organisers, three prescriptions follow from the analysis, and one merits direct confrontation with prevailing industry practice.

The industry preoccupation with follower counts and gross engagement volumes as headline indicators of brand strength is, on the evidence assembled here, difficult to defend. Follower counts measure reach; they do not measure whether reach translates into the psychological commitments that produce durable loyalty. Gross engagement volume conflates prosocial advocacy with toxic hostility, which cancels out in aggregate but diverge sharply in their effects on brand equity. A more diagnostic managerial dashboard would track engagement quality (sentiment, advocacy behaviours, and community cohesion), engagement retention (whether engaged fans remain engaged across events), and moderation efficacy (the ratio of prosocial to toxic engagement over time). These metrics require more sophisticated measurement infrastructure than follower-count reporting demands, but the alternative is a strategic posture built on numbers that describe volume rather than value.

Beyond this, community management should be treated as a strategic function rather than a downstream operational task. The evidence assembled here suggests that toxicity within engaged communities can systematically erode the value that engagement was meant to create. Platform choice is likewise strategic rather than tactical, since the same content strategy produces materially different engagement profiles across platforms whose affordances differ in substantive ways.

Limitations and Future Research

This paper is conceptual rather than empirical. Its principal limitation is the absence of primary data, and its most important call is for empirical work that takes the causal claims of the proposed model seriously enough to test them with adequate methodology. Three specific directions deserve emphasis.

The temporal-scale mismatch between engagement and loyalty is a first-order research problem that the field has not adequately theorised. Engagement is a high-frequency and easily perturbed state; loyalty is a low-frequency and structurally stable disposition. Any mediation model that treats these two constructs as if they operated on the same temporal scale is theoretically incomplete. Future work should model the accumulation function through which repeated engagement episodes consolidate into stable loyalty, and should investigate whether the consolidation is linear, threshold-based, or subject to decay.

Beyond the temporal question, longitudinal and quasi-experimental research designs are required for the field to move beyond the associative claims that current cross-sectional evidence supports. Panel designs measuring interaction, engagement, and loyalty at separated time points are a minimum standard. Quasi-experiments exploiting exogenous shocks to social media exposure would represent a substantial methodological advance.

Cross-cultural replication is equally essential. The specific case of the Chinese sports media context, discussed in Section 6.3, is one instance of a more general problem. Fan behaviours are culturally embedded, and models developed on Western data should be tested rather than assumed to travel intact to other cultural settings.

Two further directions deserve brief mention. The role of generative AI (artificial intelligence) and algorithmic personalisation in shaping fan engagement is a rapidly evolving topic that this paper has not addressed. The relationship between engagement quality and engagement quantity, frequently conflated in the applied literature, requires more rigorous conceptual treatment than it has yet received.

Conclusion

Social media interaction has transformed the ways in which sports event brands cultivate loyalty, but the relationship between interaction and loyalty is neither direct nor unmediated. Fan engagement, understood as a multidimensional psychological state comprising cognitive, affective, and behavioural components, serves as a substantively important mediator through which interactional inputs become loyalty outcomes. The framework advanced here is grounded in the foundational literature on customer engagement, brand loyalty, and team identification, and it is extended into a moderated-mediation form that accommodates the valence problem and the contextual heterogeneity that the ongoing-league and mega-event data alike expose.

The framework is nonetheless advanced with deliberate epistemic humility. The claim that engagement mediates the interaction-loyalty relationship should be stated as a claim about a partial mediator among several plausible candidates, not as a claim about the sole mechanism. The methodological limitations of the extant empirical literature, the ambiguous valence of engagement as a construct, the platform-dependence of the observed effects, and the cultural specificity of the theoretical models on which the field currently relies together imply that progress will depend as much on methodological refinement and comparative testing as on conceptual innovation. The most productive next step for the field is the development of longitudinal and cross-cultural research designs capable of testing the causal and generalisability claims that current cross-sectional evidence can only suggest.

References

- Aaker, D. A. (1991). *Managing brand equity: Capitalizing on the value of a brand name*. New York: Free Press.
- Alonso-Dos-Santos, M., Rejón Guardia, F., Pérez Campos, C., Calabuig-Moreno, F., & Ko, Y. J. (2018). Engagement in sports virtual brand communities. *Journal of Business Research*, 89, 273-279.
- Branscombe, N. R., & Wann, D. L. (1991). The positive social and self concept consequences of sports team identification. *Journal of Sport and Social Issues*, 15(2), 115-127.
- Brodie, R. J., Hollebeek, L. D., Jurić, B., & Ilić, A. (2011). Customer engagement: Conceptual domain, fundamental propositions, and implications for research. *Journal of Service Research*, 14(3), 252-271.
- Brodie, R. J., Ilic, A., Juric, B., & Hollebeek, L. (2013). Consumer engagement in a virtual brand community: An exploratory analysis. *Journal of Business Research*, 66(1), 105-114.
- Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: The role of brand loyalty. *Journal of Marketing*, 65(2), 81-93.

- Filo, K., Lock, D., & Karg, A. (2015). Sport and social media research: A review. *Sport Management Review*, 18(2), 166-181.
- Hollebeek, L. D., & Chen, T. (2014). Exploring positively- versus negatively-valenced brand engagement: A conceptual model. *Journal of Product & Brand Management*, 23(1), 62-74.
- Hollebeek, L. D., Glynn, M. S., & Brodie, R. J. (2014). Consumer brand engagement in social media: Conceptualization, scale development and validation. *Journal of Interactive Marketing*, 28(2), 149-165.
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, 53(1), 59-68.
- Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing*, 57(1), 1-22.
- Lim, J. S., Hwang, Y., Kim, S., & Biocca, F. A. (2015). How social media engagement leads to sports channel loyalty: Mediating roles of social presence and channel commitment. *Computers in Human Behavior*, 46, 158-167.
- Muniz, A. M., & O'Guinn, T. C. (2001). Brand community. *Journal of Consumer Research*, 27(4), 412-432.
- Oliver, R. L. (1999). Whence consumer loyalty? *Journal of Marketing*, 63(Special Issue), 33-44.
- Santos, T. O., Correia, A., Biscaia, R., & Pegoraro, A. (2019). Examining fan engagement through social networking sites. *International Journal of Sports Marketing and Sponsorship*, 20(1), 163-183.
- Van Doorn, J., Lemon, K. N., Mittal, V., Nass, S., Pick, D., Pimer, P., & Verhoef, P. C. (2010). Customer engagement behavior: Theoretical foundations and research directions. *Journal of Service Research*, 13(3), 253-266.
- Vivek, S. D., Beatty, S. E., & Morgan, R. M. (2012). Customer engagement: Exploring customer relationships beyond purchase. *Journal of Marketing Theory and Practice*, 20(2), 122-146.
- Wann, D. L. (2006). Understanding the positive social psychological benefits of sport team identification: The team identification—Social psychological health model. *Group Dynamics: Theory, Research, and Practice*, 10(4), 272-296.
- Wann, D. L., & Branscombe, N. R. (1993). Sports fans: Measuring degree of identification with the team. *International Journal of Sport Psychology*, 24(1), 1-17.
- Yoshida, M., Gordon, B., Nakazawa, M., & Biscaia, R. (2014). Conceptualization and measurement of fan engagement: Empirical evidence from a professional sport context. *Journal of Sport Management*, 28(4), 399-417.
- Yoshida, M., Biscaia, R., Uhrich, S., Gordon, B. S., Huettermann, M., & Nakazawa, M. (2024). Fan engagement behavior: Validation of a theory-based scale. *Journal of Sport Management*, 38(2), 133-150.