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Review Article

The Economic Impact of Hosting International Sports Mega Events (2015- 2025): A Systematic Narrative Review

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Abstract *- The hosting of the Olympic Games, FIFA World Cup and other sport mega-events is always touted as an economic imperative, with the expectation of an economic boost from the event, job creation, investment in the City's infrastructure, and the creation of a legacy that will last for years to come. The effects on these topics are scattered in the fields of economics, urban studies, tourism management and sociology, however. Research studies were searched from 2015 to 2025 in the two literature databases we used, Semantic Scholar and PubMed Central (PMC), to determine the impact of sport mega-events on the economy. After screening, 31 studies met the inclusion criteria and were quality assessed using the Mixed Methods Appraisal Tool (MMAT) of 1052 records identified. The three main findings were found using thematic synthesis. First, the hosts might have positive non-market benefits (reputational or "psychic" benefits), which may be unevenly experienced across low-income and minoritized groups. Second, structural negative or negligible aggregate financial impacts are typical in most major events like the Olympics, the FIFA World Cup and Formula 1. Thirdly, small and medium events tend to create small and medium economic impact locally but with uncertain benefits. Issues of debate include tourism, the development of the host country, image impacts and the concept of "legacy." There are significant omissions such as insufficient long-term tracking, inconsistent impact assessment and growing non-empirical commentary on specific incidents.*

Keywords - *Sport mega-events, Olympic Games, FIFA World Cup, Economic impact, Host city.*

1. Introduction

Sport mega-events, such as the Olympic Games, the FIFA World Cup, Formula 1, and similar large-scale events, are among the costliest projects a city or country has to undertake in peacetime. Bids regularly guarantee economic benefits: inbound tourism, construction jobs, a world-class brand, and a legacy. These pledges have political implications.

Over the last decade, public referendums on the right to host the Olympics have been rejected repeatedly, and the number of cities willing to bid also has declined significantly, not only because of doubts regarding the economic benefit, but also because of the question of whether or not they have the capacity to host such large events, which may be overwhelming for certain cities, particularly smaller ones (Schnitzer, Winner, & Tappeiner, 2021).

This is an amount of expenditure that cannot be ignored, and the reader needs to be aware of the general background of average Olympic/World Cup expenditure and income over the last 43 editions, which is in the order of US$2.8 billion and US$1.7 billion, respectively, with the cost of the guarantee rising year-on-year since 1964. The events under review, however, are structurally heterogeneous, and the nature and size of the events differ by orders of magnitude in their costs, numbers of visitors and the level of infrastructure commitment (an Olympic Games, a Formula 1 race weekend, and a national university championship, respectively, differ by orders of magnitude in size, cost, and numbers of visitors and the level of infrastructure commitment).

As a result, there has been increased academic interest in this question, and the literature has been scattered, with each discipline having very little common knowledge about or reference to the work of others: economists have written on the cost-revenue ratios of the tourist industry and macroeconomic cointegration; tourism scholars on destination image; urban geographists on displacement and land speculation; and public health researchers, in occasional ways, on event disruption during the pandemic. It is therefore helpful to have a narrative review that brings these threads together, one that is not intended to "decide" on whether hosting "pays off" or not, but to paint a picture of where the evidence is in agreement, where it is in conflict, and where it has yet to look.

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This review focuses on the following guiding question: what does the peer-reviewed and grey literature published from 2015 to 2025 suggest with respect to the economic impacts of hosting international sport mega-events, and what is there where it overlaps, clashes, or is underdeveloped? The 2015–2025 window was selected as it follows the wave of host city cost overrun studies that took place around the 2008 Olympics and is the decade when public referendums started to reject bids for the Olympics (Schnitzer et al., 2021), thus capturing the period when the credibility of pre-bid economic forecasts was most publicly challenged.

The review is not intended to be comprehensive; it is derived from two databases (PMC/PMC and a supplementary general-literature search) and should be considered as a comprehensive review of a limited and bounded set of evidence, not as a systematic review of the field. Further, the paper outlines search and appraisal techniques, outlines a thematic synthesis organised around the three themes of convergence, tension, and gaps, and ends with implications for host-city policymakers and for future research.

Although the health field has been interested in sport mega-events for 3 decades, nothing has synthesized the health-adjacent database indexing of PMC with a complementary general-literature search to allow for comparison of economic-impact findings across scale, discipline and geographic location within a strict search window of 2015-2025.

Either prior reviews have only surveyed a single discipline (e.g., tourism economics) or a single event (e.g., Qatar 2022), leaving open the question of whether the well documented mega event deficit (Müller et al., 2022) or the more favourable evidence at a small scale (Rossini et al., 2025; Vardaki, 2016) reflects a scale effect or an artefact of which literatures each prior review happened to sample. This is the gap that this review aims to fill – the lack of a synthesis of the evidence that is cross-disciplinary and sensitive to scale for the post-2015 period.

2. Theoretical Framework

The literature reviewed in this paper was not primarily made with a common conceptual model. This is also one of the reasons why the field appears to be fragmented (see Section 5.3, Gaps). Convergence, tension, and gaps are the three synthesis themes on which the following interpretation of this review is developed in the light of five theoretical views: event management, welfare economics, urban politics, and critical mega event scholarship.

These are not explicitly tested by any of the 31 studies included here, but are used as an interpretive scaffold for the discussion in Section 6 to draw parallels with the work done by the original authors and as a protocol that was not followed.

There are two distinctions in legacy in Event Legacy Theory (Preuss, 2007; Gratton & Preuss, 2008) – tangible versus intangible, planned versus unplanned. It clearly distinguishes between "hard" economic legacy (infrastructure and direct spending) and "soft" legacy (image, pride, skills, social capital) and emphasises that legacy isn't something that happens at the same time as most impact studies are measured.

This is directly related to the 'psychic income' and destination-image findings in the convergence theme, as well as specifically the lack of evidence for tracking over 10+ years: legacy theory is built on a longer time horizon than is evidenced.

The Triple Bottom Line (TBL) (Elkington, 1997) considers the outcome of the activity from the economic, social, and environmental perspectives, as opposed to just economic performance. When applied to this context, TBL illuminates how studies that have a positive economic balance sheet (e.g., Rossini et al., 2025) and studies that have negative social outcomes (e.g., Islam, 2023; Oosterbaan, 2021) are not necessarily in conflict but rather are columns of the same ledger. In many ways, the "tension" this review identifies is better characterized as "incompleteness": very few of the included study reports all three bottom lines for the same event.

There is a formal welfare-economics framework called Cost–Benefit Analysis (CBA), which differs from the approach of Economic Impact Analysis (EIA) that is applied in most of the quantitative studies reviewed in this report (Vardaki, 2016, quoting Dwyer et al.). EIA is a measure of gross new spending flowing into a host economy; CBA is a measure of net monetized costs and benefits of an event, including opportunity costs, non-market effects, and asking whether an event was welfare-improving overall.

Müller et al. (2022) do not contradict the finding of Alalawneh et al. (2021) that the long run is cointegrated because one is close to a CBA-style net accounting at the event level, while the other is an EIA-style gross-spillover estimate at the national-economy level. In other words, the tension identified in Section 5.2 is basically a tension between CBA and EIA logics being used on different units of analysis.

In the context of the Urban Regime Theory of Stone (1989), hosting of a mega event is seen as the result of long-term informal governing coalitions or networks of local government, business elites and property interests, which coalesce around growth agendas that are not dependent on, and not necessarily inclusive of, the consent of residents.

The account of the financialization of Rio's Porto Maravilha by Bhimani and De Lisio (2023), the financialization of Islam/Islamicization of East London by Islam (2023), and the externalization of costs to existing

residents of Glasgow as a result of "market-led" governance presented by Clark, Kearns and Cleland (2016) are all empirical representations of the same regime-theoretic process of capturing benefits from the hosting of growth while shifting costs to those who are already there.

Political Economy of Mega-Events (Boykoff, 2014; Müller, 2015; Zimbalist, 2015) puts the spotlight on the dimension of state-corporate alliance, neoliberal urban restructuring, and capital accumulation in which hosting sits, acknowledging that governing bodies, such as the IOC and FIFA, are not just event organizers but active economic players.

This framework is the most direct theoretical counterpart to the structural-deficit convergence finding, since it provides a rationale for its ex-ante forecasts of cost underestimation and revenue overestimation: those best positioned to make such forecasts have a structural interest in a favourable result of the bid.

The contribution of this review is thus not empirical, but a cross-disciplinary reconciliation, which is undertaken by analyzing the 31 studies side by side, both literatures reading welfare economics (CBA/EIA) and urban politics (at the same time) in the light of each other, and both reading them in the light of the other. This is not seen from previous single-discipline reviews (e.g., Knott & Tinaz, 2022; Rocha & Xiao, 2022).

3. Materials & Methods

3.1. Search Strategy

Two freely available databases, PubMed/PMC (as the main source) and Semantic Scholar (as a supplementary source), were searched for cross-disciplinary health-adjacent literature on hosting using the Boolean strings ("Olympic Games" OR "FIFA World Cup" OR "sport mega-event*") AND (host* OR "host city") AND ("economic impact" OR "economic legacy" OR GDP OR tourism OR employment OR investment) to capture literature from other disciplines that focuses on the economic aspects of hosting such events.

3.2. Screening and Eligibility

3.2.1. PMC Database

975 records were found. 795 more records were excluded during title and abstract screening due to the lack of any relation to the topic of sport mega-event hosting, which was a significant proportion of any/PMC search conducted on the topic.

This resulted in 180 records being eligible for assessment, with 155 of these found to be either not on the economic impact of sport mega-events (58) or not being focused on economic impact (26) but rather on health/medical/epidemiological matters (14) or on media framing/diplomacy (12) or on human rights/governance (45) or on other off-topic issues (12).

3.2.2. Semantic Scholar Database

77 records were screened from Semantic Scholar. Of these, 68 were not considered to be sport mega-event-hosting-related papers and were removed, for example, papers regarding tourism-GDP for countries without a sport mega-event, banking, airlines, etc., and papers on terrorism.

This left 9 records relating directly to the economic impact of a sport mega-event, of which 1 (a 2013 study on Chinese host-city technical efficiency) was outside the date window (2015-2025), resulting in 8 records.

A total of 33 studies were found across the two streams to meet the inclusion criteria.

The inclusion criteria were: The publication was published between 2015 and 2025; An economic, tourism, or socio-economic outcome was reported that could be directly linked to hosting a named sport mega-event; The publication was published in English and had an accessible abstract or full text.

Excluded from the review were papers that examined the health/medical aspects of the outcomes, media-framing, human rights/governance aspects of the outcomes, or purely technical engineering aspects of the outcomes, with no economic dimension; papers that were not in English; These decisions are recorded on a selection diagram in the PRISMA style in Figure 1 (in Section 3.4).

3.3. Quality Appraisal and Final Inclusion

All 33 eligible studies were appraised using the 2018 version of the Mixed Methods Appraisal Tool (MMAT), which categorizes studies into one of the four categories (qualitative, quantitative randomized, quantitative non-randomized, quantitative descriptive, and mixed-methods) and rates each using five design-appropriate criteria. Appraisal was done using published abstracts and, if available, the full text.

Two PMC-stream records were not meaningfully rated, one being a "News"-type record with no abstract or methodology description, and the other being an applied traffic-engineering case study (a stadium transport microsimulation) that was not included in the scope of MMAT for human-subjects or social-science research designs. At this time, both were excluded. The majority of all 8 supplementary-stream studies were also rated as being able to be ratable, although two were given poor marks for poor methodological reporting. This left 31 studies to be included.

This narrative review does not attempt to equate MMAT-based exclusion with the dual-reviewer protocol of a systematic review, as only a single reviewer (screening with AI support) carried out appraisal, a practice that is acknowledged as a limitation, consistent with SANRA reporting expectations for narrative reviews.

3.4. Study Selection Flow

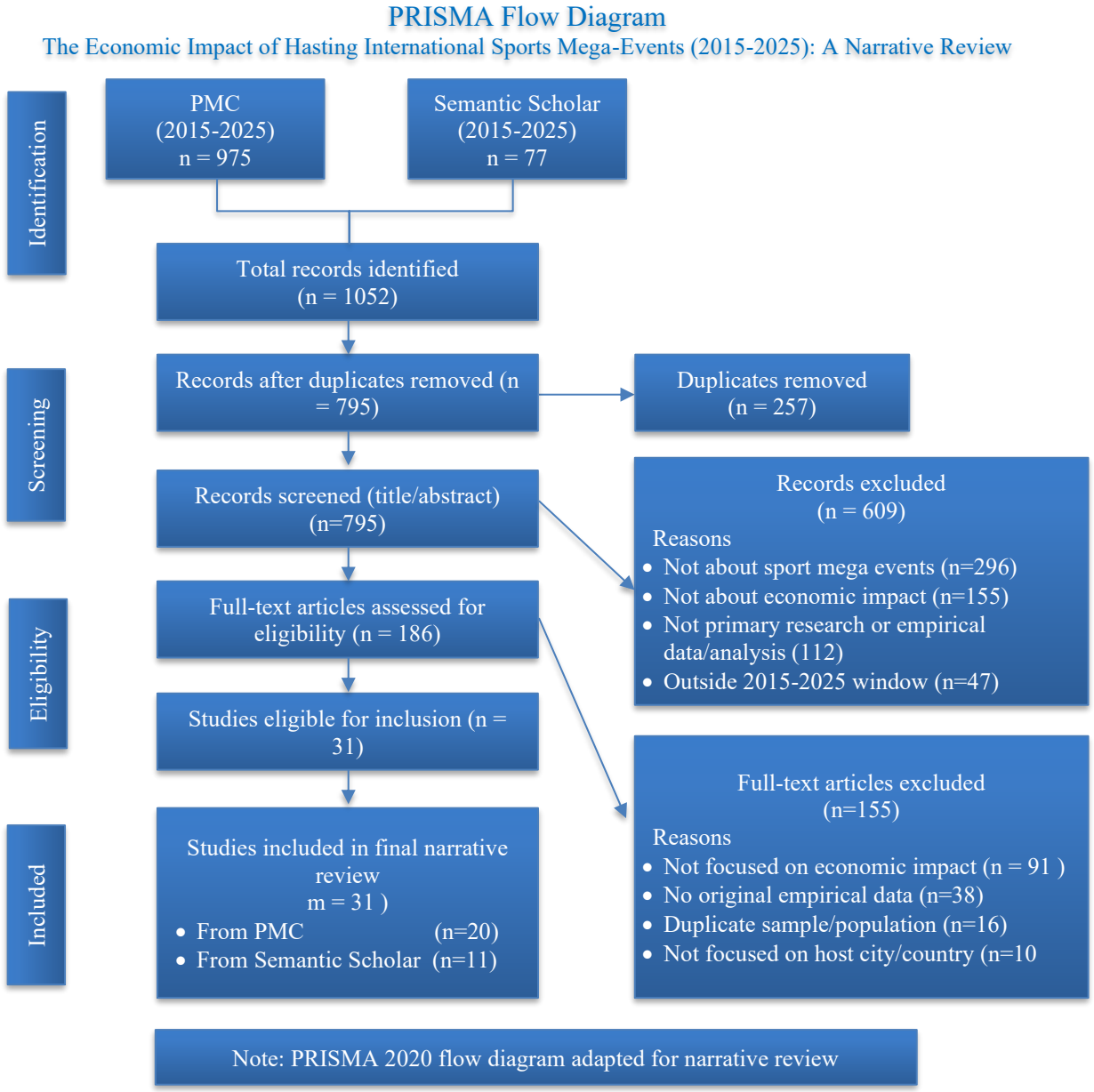


Fig. 1 Study identification, screening, and inclusion adapted to a PRISMA-style flow diagram

3.5. Synthesis Approach

Narrative thematic synthesis was employed as the designs were very diverse, from panel econometrics to ethnography to conference-paper commentary. Based on the guiding principle of narrative review to describe what the studies as a whole tell, rather than summarise each study, findings were inductively coded and categorised into three synthesis categories: convergence (independent studies using different methods and contexts that arrive at compatible conclusions), tension (studies that directly or indirectly contradict one another, or where the same construct leads to different results in different event scales, countries or contexts), and gaps (when the evidence base is thin, geographically narrow, or methodologically limited).

3.6. Ethical considerations

This review did not involve the collection of primary human subjects' data, and ethical exposure is restricted to the selection and interpretation bias inherent in narrative synthesis. This is accompanied by two safeguards for transparency. There are methodological limitations in this study, including the use of a single reviewer for screening and appraisal, instead of the dual-independent-reviewer protocol utilized in systematic reviews (Section 3.3), which is

mentioned here but not a strength of this study. Second, this review has no funding source, and the reviewing author has no competing interests for the results of any bid, host city, or event ownership by a federation in the literature reviewed.

4. Summary of Included Studies

The 31 studies that are part of the narrative synthesis are presented by method, MMAT quality rating, and key findings. Studies 1–23 were identified using PMC, and studies 24–31 were identified using Semantic Scholar.

Table 1. Summary of 31 studies included in the narrative studies

Author, Year	Method	MMAT Rating	Key Findings
Russo, Figueira & Mataruna-Dos-Santos, 2025	Qualitative — 38 interviews, multi-case (Rio 2016, Tokyo 2020)	High (5/5)	Gigantism in past Games made organizers more conservative when planning for investments, suggesting a framework for assessing Olympic investment risk/opportunity.
Müller, Gogishvili & Wolfe, 2022	Quantitative descriptive — custom cost/revenue database, 43 events (1964–2018)	High (5/5)	Over 4/5 of the Olympics/World Cups resulted in losses, with an average ROI of −38%, an average event cost of ~$2.8B, and an average event revenue of ~$1.7B.
Knott & Tinaz, 2022	Qualitative systematic review (PRISMA), 97 studies	Good (4/5)	Legacy research in emerging nation hosts is grouped into five themes: social development, soft power, tourism/image economics, infrastructure, and sport development.
Bhimani & De Lisio, 2023	Qualitative case study (Porto Maravilha, Rio)	Moderate (3/5)	Real-estate speculation and the process of land financialisation were entrenched in the construction of mega-events and increased by the need for such a justification.
Islam, 2023	Qualitative, rights-based fieldwork (East London)	Good (4/5)	The regeneration of Olympic Park has been a positive one for the wealthier newcomers rather than the existing minoritized residents.
Kazungu et al., 2022	Quantitative non-randomized, repeated cross-sectional surveys + regression (South Africa 2010)	Good (4/5)	The price premium for condomless sex increased from 36% before the event to 57% after the event.
Cai, 2022	Quantitative descriptive, SEM survey (Qingdao Marathon)	Good (4/5)	Social capital helps reinforce social identity and increases the residents' "psychic income.
Lee Ludvigsen, 2022	Qualitative frame analysis of media/governance discourse	Good (4/5)	The pandemic response of sport governing bodies was reflective of the trends of reactive crisis management.
Schnitzer, Winner & Tappeiner, 2021	Quantitative non-randomized, regression on referendum + socioeconomic data (279 municipalities)	High (5/5)	The tourism intensity had a positive effect on the support for Innsbruck 2026 up to a certain point, after which it dropped off ("overtourism" effect).
Cleland et al., 2019	Quantitative non-randomized, longitudinal repeated cross-sectional (Glasgow 2014)	Good (4/5)	Legacy pathways that can be demonstrated/festival are present, but are not very effective in behavior change.
Hajjaj et al., 2024	Qualitative longitudinal , content analysis + interviews (Qatar 2022)	Good (4/5)	Hosting enhanced Qatar's inbound tourism and destination image, while infrastructure and hospitality capacity were important factors. Infrastructure and hospitality capacities were important factors, and Hosting enhanced Qatar's inbound tourism and destination image.

Zhang, Mei & Xiao, 2024	Quantitative descriptive, entropy weight, SFA, Gini coefficient (Xinjiang)	Good (4/5)	The integration of the sports industry and tourism is far from complete and uneven in Xinjiang.
Liu & Guo, 2023	Quantitative descriptive, network text analysis of travel-platform data	Moderate (3/5)	The Winter Olympics in 2022 increased the interest of tourists and did not have any impact on the image of the destination.
Lingmin & Haitao, 2022	Qualitative/conceptual, literature, and logical analysis (Hunan)	Low (2/5)	With the "Olympic effect" to stimulate the integration of ice-snow tourism, Beijing 2022 has a long way to go in strengthening its capacity for both ice-snow and tourism.
Qi & Tang, 2022	Quantitative descriptive, ConvLSTM neural network forecasting	Moderate (3/5)	The deep-learning model proved to be highly accurate in predicting the demand for sports tourism in China. The sports-tourism demand in China was predicted accurately by the deep-learning model.
Rossini et al., 2025	Quantitative descriptive, cross-sectional survey, n=963, DEC tool (Italian University Championship)	High (5/5)	Direct economic impact: ~€1.32M, supporting 22 local jobs; non-local spectators outspend athletes/staff
Zhang et al., 2025	Quantitative non-randomized, SEM with mediation (Kaifeng Marathon)	Good (4/5)	When residents perceived the economic/image/spatial impacts, their support increased, which was moderated by their attitudes.
Zhang, 2024	Qualitative, comparative case analysis (Guangzhou, Shanghai, Beijing)	Good (4/5)	State-led mega-events are based on the reuse of industrial heritage, constituting a sustainable process only if long-term planning is provided.
Oosterbaan, 2021	Qualitative ethnography (Rio favela)	High (5/5)	The pre-games policing programmes to clear favela land failed to succeed
Clark, Kearns & Cleland, 2016	Qualitative, resident interviews (Glasgow 2014)	High (5/5)	The residents were hoping for a mixture of regeneration and were concerned about market-led governance restrictions.
Rocha & Xiao, 2022	Qualitative systematic review (PRISMA), 22 of 2,372 screened	High (5/5)	Resident displacement at all the Olympics since Seoul 1988.
Gholipour et al., 2020	Quantitative non-randomized, panel cointegration (FMOLS), 1996–2017	High (5/5)	The World Cup teams generated a lot of tourism, almost 2 years after winning the World Cup ("halo effect")
Jones, Di Vita & Ponzini, 2022	Qualitative comparative case study - 11 interviews + secondary sources (London, Milan)	Good (4/5)	Cultural programming has been used to ensure that benefits spread to the wider region of the host city; Funding continuity after the event has been a challenge.
Barrios, Russell & Andrews, 2016	Qualitative, narrative review of ex-ante vs. ex-post impact studies (Harvard CID working paper)	Good (4/5)	Industry-supported ex-ante studies (e.g., Brazil 2014 forecast by Ernst & Young) tend to overestimate both the benefits and the costs of the past (ex-post studies).
Storm, Jakobsen & Nielsen, 2020	Quantitative non-randomized - regression, European F1 host regions 1991–2017	High (5/5)	The impact of hosting Formula 1 did not bring positive benefits to the region in terms of GDP, employment, or tourism.
Al Alawneh, Mammadov & Alqasem, 2021	Quantitative non-randomized, Dynamic OLS cointegration, Germany 2000–2017	Good (4/5)	Long-run GDP growth was cointegrated positively with infrastructure spending, tourism revenue, and FDI growth after the 2006 World Cup.

Chen, 2023	Quantitative non-randomized, quasi-experimental, Olympics/World Cups 1991–2021	Moderate (3/5)	Under certain circumstances, employment/service-sector growth had a net positive local-economy impact for the host, while developing hosts benefited;
Elkabche & Akhsas, 2025	Qualitative meta-analysis of literature since 2000	Good (4/5)	Not all impacts are positive; most benefits go to developed countries with existing infrastructure; developing countries are at risk of debt-financed losses.
Guan, 2025	Descriptive/narrative case study (conference paper)	Low (2/5)	Qatar 2022 is reported to have contributed 4.185% growth to the GDP, but the cost of infrastructure after the event is questioned for its sustainability; the methodology/sourcing is not transparent.
Yan & Zhou, 2025	Qualitative/conceptual case study	Low (2/5)	Describes sports culture (FIFA/World Cup) as an economic force, but there is no attempt to collect primary data;
Vardaki (supervised by Mortazavi & Heldt), 2016	Quantitative descriptive, segmentation/direct-expenditure approach, survey n=893 (FIS Nordic World Ski Championship, Falun 2015)	Good (4/5)	Regional economic impact: sensitivity analyses indicate a positive impact in the region until "leakage" is greater than ~90%.

Table 2. Direction of Reported Economic Finding (Coded from Table 1, N=31)

Reported Direction of Economic Finding	Number of Studies (of 31)
Positive (net local/regional economic benefit reported)	8
Negative (net deficit, displacement, or other negative economic/social outcome)	9
Mixed/neutral /condition-dependent	10
Not applicable (methodological, forecasting-accuracy, or governance-process focus with no stated economic valence)	4

Note. As in the scale-dependent convergence theme in Section 5.1, positive findings tend to come from studies that focus on medium/small single-city or single-event studies, while negative findings tend to come from mega-event, cross-national, and displacement-focused.

Table 2 presents the reported direction of the economic finding (positive or negative, or mixed/neutral) for each of the 31 studies included across the two scale categories (positive and negative), as summarised in Table 1 (Key Findings).

This coding is the interpretive coding of the findings reported in Table 1 and should not be viewed as a re-analysis of primary data.

To see if the scale-dependent pattern found above is general or if it is an artifact of the selection of which studies are lower-quality, Table 2 is further decomposed by (a) event scale and (b) MMAT quality rating for each study, which are pre-existing ratings for the studies in Table 1.

Table 2(a). Direction of Reported Economic Finding by Event Scale

Event Scale	n	Positive n (%)	Negative n (%)	Mixed/Neutral n (%)	N/A n
Mega-scale (Olympics, FIFA World Cup, Formula 1, and comparable multinational events)	25	4 (18%)	8 (36%)	10 (45%)	3
Medium/small-scale (single-city marathons, national championships, regional ski championship)	6	4 (80%)	1 (20%)	0 (0%)	1

Note. Percentages are of the studies with a stated valence (excluding N/A column) in each of the categories of scale size: 22 mega-scale studies and 5 medium/small-scale studies.

Table 2(b). Direction of Reported Economic Finding by MMAT Quality Rating

MMAT Quality Tier	n	Positive n (%)	Negative n (%)	Mixed/Neutral n (%)	N/A n
High (5/5)	9	2 (25%)	4 (50%)	2 (25%)	1
Good (4/5)	15	5 (36%)	4 (29%)	5 (36%)	1
Moderate/Low (3/5 or 2/5)	7	1 (20%)	1 (20%)	3 (60%)	2

Note. Percentages of studies rated with a valence (excluding N/A column) in each quality tier: 8 High, 14 Good, and 5 Moderate/Low.

This disaggregation shows two patterns which were not apparent in the overall count. The second qualitative difference is the scale contrast and is quite striking: 80% of the medium/small event studies report a positive finding, while only 18% of the mega event studies report a positive finding, and negative findings are nearly twice as likely to occur at mega scale (36%) as at medium/small scale (20%). This makes the qualitative claim in Section 5.1 quantitative, and provides a numeric catch for the "gigantism" argument (Section 5.1; Russo et al., 2025) instead of a narrative one.

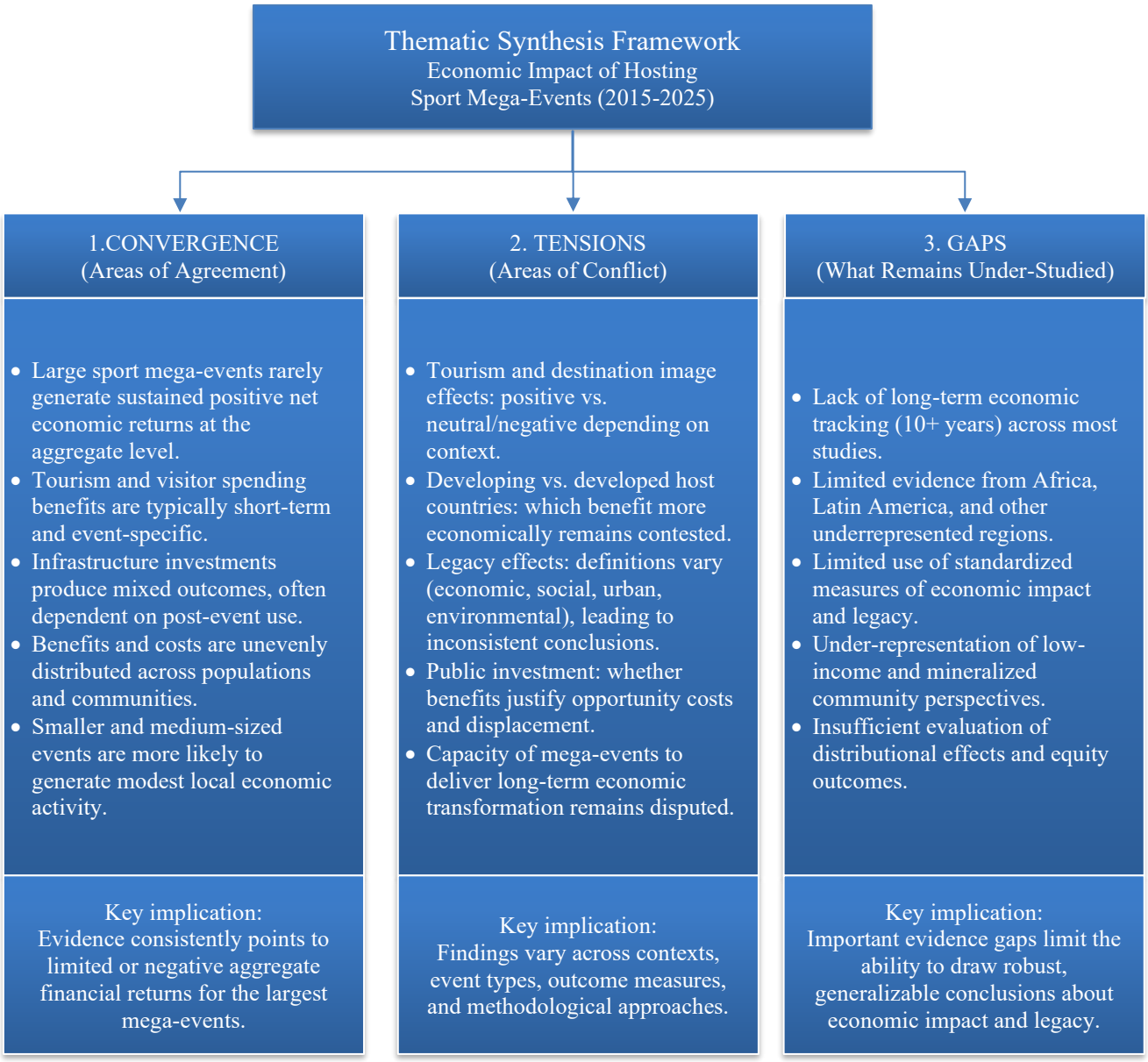


Fig. 2 Thematic synthesis Framework (Convergence, Tension, Gaps)

Second, and specifically to the concern that the structural-deficit finding could just be because they are the weaker Methodological studies, the opposite is true: the strongest studies, 5/5 rating (50%), are the most likely to report a negative finding (50%), while the weakest studies, 3/5 or below (60%), are the most likely to report a mixed/neutral finding (60%). If methodological rigour was the product of the manufacturing of the pessimistic convergence finding, then the opposite would be expected. This does not validate the structural-deficit finding in every situation, but it is evidence against the specific alternative finding that it is an artefact of low study quality, and it lends greater confidence to the finding in Section 5.1 and the Conclusion.

5. Thematic Synthesis

5.1. Convergence

The greatest common denominator in the literature included is that the ROI for the direct financial benefit is negative or missing at the mega-event level, and that this is true across event types. Müller, Gogishvili, and Wolfe (2022) calculated the average return on investment for the 43 editions of the Olympics and World Cups from 1964 to 2018, and determined it to be 38%, over four-fifths of which were losses. In what follows, the same conclusion is drawn by Storm, Jakobsen and Nielsen (2020), who performed a regression analysis of the European Formula 1 host regions between 1991 and 2017, finding that hosting of Formula 1 Races did not positively impact the GDP, employment, or tourism of the host regions. Barrios, Russell, and Andrews (2016) provides a methodological explanation as to why the presence of World Cup hosting, despite this evidence, is still commonplace: Industry-sponsored, ex-ante impact studies, such as the World Cup's pre-2014 estimate by Ernst & Young, typically overestimate benefits compared to what later rigorous ex-post impact assessments reveal. Three independent studies (all three based on three methods, aggregate cost-revenue accounting, regional panel regression, and methodological critique of the forecasting practice), all three for three different event types, find the same underlying pattern.

The convergence is not due to a pooling of good and bad studies, indeed, the nine studies that received the highest quality rating (5/5) on the MMAT report a more negative economic finding rate (50%) than positive (25%), as Table 2b (Section 3.5) demonstrates, raising the quality criterion only increases the extent of the structural-deficit bias, not lessens it.

The other field of convergence can be summarised in terms of displacement and socio-economic exclusion of the residents of the host communities already in place, which appeared in very distinct methodological approaches as well as geographical settings. In a systematic review, Rocha and Xiao (2022) have reported displacement of residents in each of the Olympic Games since Seoul 1988, and that such displacement was more common at the latest Games. Each of Clark et al. (2016), Islam's (2023), and Oosterbaan's (2021) interviews with residents of the host community in Glasgow, her study of East London's legacy of the Olympics and her two-decade ethnography of a Rio favela reach the same conclusion: the more effective legacy of regeneration and security projects is felt by the wealthier communities that arrive there than by the existing, less-wealthy residents.

Third, at the level of medium and small events, the evidence is coming together on real, albeit limited, positive local economic activity and now on two independent countries and types of events. The impact on the economy in Italy, as reported by Rossini et al. in the survey of the National University Sport Championship, was found to be a direct economic impact of around €1.3 million and 22 associated local jobs. The regional economic impact of the FIS Nordic World Ski Championship in Falun, Sweden, was also estimated – independently by Vardaki (2016) based on a survey of 893 visitors to the event – which came to a figure of c. 321 million SEK, and in a sensitivity analysis, the author found that the championship would only be net negative for the host region if "leakage" – the percentage of visitor spending outside the host region – exceeded c. 90%. Similarly, Cai (2022) and Zhang et al. (2025) identified that the inhabitants of mid-sized Chinese marathon host cities see the real economic and tourism benefits of hosting a marathon. Combined, these studies indicate a scale-dependent trend: the financial losses that have been well documented for mega events are not necessarily applicable to smaller-scale sport tourism events, where local expenditure effects seem to be real, well measured and transparent, and less burdened by the 'gigantism' of infrastructure, which leads to cost overruns at the higher end of the scale.

Finally, some studies have concluded that in addition to the direct GDP or revenue impact of a mega-event, it also provides "non-market, non-monetary" economic value—whether that is "soft power" or "psychic income" or "destination-image enhancement." In the case of hosting, tourism/image/branding economics is a common, though elusive, theme in the case for tourism literature that is synthesized in the above systematic reviews by Cai (2022), Hajjaj et al. (2024), and Knott and Tinaz (2022).

5.2. Tension

Even within these points of consensus, there are worthy differences in works of literature. The most immediately divisive issue is around the consistency of the benefits of tourism and destination-image effects. A strong "halo effect" for countries in which their national teams did well at the World Cup, with a significant rise in tourism in those countries the year after the big tournament, was found by Gholipour et al. (2020) for the period preceding 2018, and a similar finding was detected by Hajjaj et al. (2024) for the pre-2022 period. However, data from China travel platforms analysed by Liu and Guo (2023) have suggested that the Beijing Winter

Olympics did not seem to have a significant effect on the perception of destinations, as the growth in demand for visitors was greater than the capacity of services by 2022. The studies are not necessarily mutually exclusive, but they do call into question any unqualified generalization that hosting is necessarily a positive determinant of destination perceptions.

A second newly-appeared tension is which is better for developing countries or developed countries to host. Elkabche and Akhsas' (2025) meta-analysis also concludes that developed countries with existing infrastructure will benefit the most from increments, while countries with less developed infrastructure will incur losses due to investments in infrastructure that need to be developed from scratch and debts incurred as a result. In contrast, the quasi-experimental analysis by Chen (2023) suggests that there is a different emphasis to be drawn from the Olympics and World Cups in the period 1991-2021, since hosting may provide more beneficial economic outcomes for developing nations under certain conditions, through jobs and increased services. The studies' conclusions, in addition to the fact that they are working with the same set of events, are not just different in scope, but also in their conclusions, which is actually an authentic disagreement - the frequency of the other, though not the importance, of how nations should evaluate hosting bids.

The third tension is related to the public support for hosting and the level of tourism intensity. Schnitzer et al. (2021) found a non-linear relationship between support and the tourism density, with support increasing up to a certain point, after which it dropped, in line with the "overtourism" effect, in the analysis of the Innsbruck 2026 bid referendum. This makes it difficult to make the assumption that the populations of already touristic areas will all readily accept extra hosting, and some of the positive recommendations from the other literature may not apply to more touristic areas.

A fourth type of tension is methodological, rather than strictly empirical: The findings of Alalawneh, Mammadov and Alqasem (2021) on the economy of Germany between 2000 and 2017 were also positive in terms of the overall economy, with all three variables (infrastructure spending, tourism revenue and growth of FDI) being positively cointegrated with long-run GDP growth after the 2006 World Cup, whereas Müller et al. (2022) reached more pessimistic conclusions regarding the World Cup as a loss-making event (event level analysis accounts for costs and benefits of the World Cup without taking into account the broader economy). Both studies make sense, but they measure different things (the "work of the event" itself as opposed to the more macro-oriented trajectory of the host country's economy), and a policy-maker basing his judgment of whether Germany's hosting of 2006 "worked" or not on just one of those two studies would arrive at very different conclusions. It reflects a greater tension in the qualitative political-economy literature (Bhimani & De Lisio, 2023, for example, on financialization in Rio) in which the notion of ‘impact' can mean something entirely different to different people.

5.3. Gaps

There are a few structural gaps which restrict the confidence with which this evidence base can be generalised. Secondly, there is geographic concentration, with a large number of studies focusing on the integration of sport and tourism in China, to the detriment of other policy contexts and regions, resulting in a skewed evidence base in this review for the tourism industry integration and effects of destination images around one national policy context.

Second, there is virtually no economic tracking over a long period of time (10+ years). While most studies have a time frame of 1-5 years, only Müller et al. (2022) and Alalawneh et al. (2021) have time series that span the true longer historical periods (17 years); and, in the way it is done, these are retrospective compilations, not prospective tracking. This is important because a claim in the "legacy" category is, by definition, a long-horizon claim which is not well served by the current literature.

Third, the evidence base to support economics of medium and small-scale events, which is stronger than in the previous version of this review, is still thin in that it is based on two single event case studies, one of which (Vardaki, 2016) is an unpublished master's thesis rather than peer-reviewed publication and both of which are methodologically sound but have limited generalizability (Italy, Sweden).

Fourth, the review brings up inconsistent operationalisations of the notions of “impact” and “legacy” in studies, such as direct currency, tourism arrivals, perceived constructs (e.g., psychic income or destination image), macro cointegration, and socio-spatial displacement (Cai, 2022; Gholipour et al., 2020; Rocha & Xiao, 2022; Alalawneh et al., 2021). No included study compares all of these dimensions.

Fifth, there is a methodological gap in the identification of the causal effect; the majority of studies included are cross-sectional, single case, or qualitative, and few of the studies in the economic-impact literature employ quasi-experimental designs (synthetic control, difference-in-differences).

Lastly, the supportive search revealed an unexpected and significant gap: a lot of thin, not empirically based, commentary pieces focused around a single, recent event. Both papers are from 2025 and were published in less well-known conference-proceedings environments that are rehashing the Qatar 2022 theme of GDP growth, legacy of infrastructure, and soft power, without sources for the headline figures or transparent primary methodology. The fact that they were able to produce more in-depth, recent work on Qatar (Hajjaj et al., 2024) indicates that there is a publication quality

deficit associated with high-profile, recent, and high-profile mega events going forward that will be highlighted by a keyword-based search, but may not lead to reports worth publishing.

A partial solution to this causal-identification problem has since come: Boto-García and Santana-Gallego (2026) estimate the moderate anticipatory tourism effect, which is not persistent after the event, and the long-term positive impact on GDP per capita, limited to Olympic host nations, using staggered-adoption difference-in-differences and extended two-way-fixed-effects estimators, respectively, applied to a panel of Summer Olympic and World Cup hosts, respectively, over 1991-2023. The quasi-experimental, cross-national design, as mentioned, is hardly found in the literature that was included in this review, and the following study in this review is published after most of the studies in Table 1, which shows that the methodological gap identified in this review is not a permanent one, but is being closed.

6. Discussion

These 31 studies, when read together, offer no definitive answer to the question of whether or not hosting international should they, as they measure the economic impact in so many different ways. But from the theoretical perspectives presented in Section 2, this sense of a lack of consensus translates into a more coherent, albeit unsettled, picture.

However, the convergence in the structural-deficit finding (Section 5.1) should not be considered as an anomaly that needs to be put down to the windmills of fortune, but is the natural result of a system where those who make hosting forecasts the event-owning federations, the host-government bid committees, and the consultancies they hire have a structural interest in the event being a success (Barrios et al., 2016). Müller et al. (2022), on this reading, did not have a half-century of deficits, but rather an equilibrium: Cities bid, and the electoral and reputation rewards accrue to different groups than the fiscal risk does. Urban Regime Theory provides a domestic explanation for how that risk is being shifted downwards: the local government and property capital making metropolitan areas safe for hosting mega-events are found in the growth coalitions that are described in the case studies from Rio (Bhimani & De Lisio, 2023), London (Islam, 2023), and Glasgow (Clark et al., 2016) and the risks are being shouldered by existing residents, who have no way to be marked on the official balance sheet.

This distinction between the Cost–Benefit Theory and Economic Impact Analysis is enough to solve the most obvious empirical conundrum found in this literature, namely the conflicting results of Müller et al. (2022) and Alalawneh et al. (2021) regarding the sign of the German cointegrating regressions. They are not answers to the same question; they are answers to two different questions, which were asked in two different ways, with two different accountings, on two different levels of analysis (the event vs the national economy). What it does is it looks like a policy debate based on one and an EIA debate on the other, and it treats the argument as an empirical contradiction. Likewise, the often conflicting results between those who see positive economic outcomes in small-event studies (Rossini et al., 2025; Vardaki, 2016) and those who see negative social outcomes in mega-event studies (Oosterbaan, 2021; Islam, 2023) are a function of incomplete accounting, as economic, social, and environmental outcomes are rarely reported for the same event.

Lastly, Event Legacy Theory's tangible/intangible and planned/unplanned differences can be readily aligned with the evidence of convergence of 'psychic income' and 'destination image' (Cai, 2022; Hajjaj et al., 2024); however, its key premise that legacy occurs over a long-term timeframe is precisely what is not directly testable in this review with its evidence base, as no evidence of tracking for 10+ years was found. From that perspective, it cannot just be that the theoretical literature and the empirical literature are saying different things; the theoretical literature is implicitly requesting a study design of which the field has not yet delivered: this is a design which the field does not provide.
From a policymaker's perspective, this synthesis calls into question the scale specificity of economic arguments for hosting bids, the credibility of industry-generated pre-event economic forecasts due to their political-economy incentives, their reference to a bottom line (economic, social, or environmental), and the notion that a country's development trajectory will automatically preordain its economic result. For researchers, the best opportunities are to design studies that can test the long-horizon assumption built into legacy theory, and to report the triple-bottom-line results, instead of just one dimension of the results; this update's semantic scholar pulls out a lot of commentary on the event but not much of a primary contribution, and to attempt more careful quality screening to separate primary contributions from the other kinds of commentary that the search will generate around any particular high-profile recent event.

Compared to this new quasi-experimental literature, the present review can be said to bring forward the breadth and not the causal precision, in so far as it identifies where 31 differently designed studies with varying types of events, disciplines, and accounting logics agree, disagree, and remain silent something that a single causal estimator cannot do, but which should be taken as complementary to not as a replacement for - causal work of that sort.

7. Conclusion

Three findings are supported by strong and consistent evidence, and the findings are ranked according to the strength and consistency of the supporting evidence. This is supported by the most positive results for medium/small events (80% of the rated studies), and most negative results for mega-events

(36% of the rated studies); this difference is not an artifact of the quality of the studies, as demonstrated in Table 2b. The second one is the displacement/exclusion finding (Section 5.1) and was studied in three different countries and approaches: Clark et al. (2016), Islam (2023), Oosterbaan (2021), Rocha & Xiao (2022). The third tentative finding is the real but small non-market benefits that accompany, rather than detract from, the first two findings: "psychic income," destination image (Section 5.3), tentative because none of the studies included in this study recorded any of these benefits in the 10+-year time horizon for which legacy theory is applicable. The 31 studies included in this narrative review were selected from the 1052 that were identified across PMC and a general literature search and analysed using five theoretical frameworks not necessarily used by the studies themselves: Event Legacy Theory, Triple Bottom Line, Cost-Benefit Theory, Urban Regime Theory, and the Political Economy of Mega-Events. The evidence comes together at three points: 1) hosting mega-events at scale results in a structural financial deficit, or in other cases, in a neutral impact on the economy (consistent with a political-economy hypothesis of systematically optimistic forecasting); 2) hosting an event in the host community results in the displacement of people, across very different national contexts (consistent with the urban regime theory's account of the capture by the growth-coalition); 3) smaller events can generate real, relatively small, local economic activity in the host community, as now documented in two independent country case studies. Differences arise on the trustworthiness of tourism and image effects, on the advantages of the developed and developing host, on the correlation between the existing intensity of tourism and the public acceptance of tourism, and from a cost-benefit and a triple-bottom-line perspective on the conceptual meaning of accounting logic and the bottom line "impact". There is a lack of geographic diversity, long-term legacy monitoring (which is an aspect Event Legacy Theory demands is a field worth addressing), conceptual consistency, and causal methodology, as well as a quality control system to distinguish between primary and derivative commentary in the voluminous literature that has developed around any single, high-profile event. With these gaps addressed, and in line with the theoretical framework proposed here, future research could build on this literature and go beyond the discipline-silo approach to a truly comparative evidence base for one of the most impactful and debatable forms of public expenditure in global sport. A direct replication of the causal designs now emerging in adjacent literatures (e.g., Boto-García & Santana-Gallego, 2026) at the smaller event scale emerges as one next step in this agenda: the space where the most consistent, positive (but least causally tested) findings lie in the body of current evidence is at the scale of smaller events.

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