

From Soccer Fields to Digital Wallets: How Green Fintech Can Bridge Gender Gaps in Rural Sports Development

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Abstract: *This review explores the potential of green fintech to reduce the existing gender gap in rural-based sports, primarily soccer. This multidisciplinary systematic literature review reveals the chronic underparticipation of women in sports in rural settings due to financial limitations, scarce infrastructure, and deeply rooted sociocultural attitudes. Green fintech, as a financial inclusion practice that adopts environmentally sustainable policies, offers some hope. Analysed case studies reveal that digital finance with environmental considerations can facilitate appropriate sponsorship levels for women's sports. This study formulates an integrative model of stakeholders' innovative collaboration policy, green finance integration, and comprehensive eco-policy synthesis cross-sectional policy framework. Although regulatory frameworks and useable technology divides pose challenges, the cohesive potential of this field could redefine rural sport ecosystems.*

Keywords: Green fintech, gender equity, rural sports development, financial inclusion

1. Introduction

Rural sports face a plethora of obstacles, ranging from inadequate facilities and scant resources to the deeply rooted gender biases that limit female participation (Tanni & Khan, 2024). The existing gap in financial services access between men and women in many of these rural areas, where banking, credit, and investment opportunities are much more limited for women (Mpfu, 2023). The previously mentioned study, conducted by Demirgüç-Kunt et al. (2022) on World Bank data, revealed that almost a billion women worldwide are unbanked, a phenomenon that is particularly acute in rural regions.

Green fintech, the subset of financial technology that emphasises environmentally sustainable practices—opens new frontiers in attempting to solve these interrelated issues (Udeagha & Muchapondwa, 2023). Digital finance solutions with an ecological technology edge can help in the restructuring of funding models for rural sports initiatives and services with the aim of devising sustainable and environmentally friendly opportunities to lessen the funding gap for women.

This review integrates studies from diverse fields, including sports sociology, gender studies, financial inclusion, environmental economics, and digital innovations, to analyse how green fintech interventions fuel the transformation of rural sports ecosystems to be more gender inclusive and environmentally sustainable. The author reviews emerging models and

theoretical frameworks to formulate robust strategies for using green fintech to dismantle the patriarchal barriers to women’s rural sport participation, primarily soccer.

Leveraging this multidisciplinary method, this study addresses diverse critical research questions. Initially, the author analyses what particular limitations these limitations are to women’s participation in rural sports and how these limitations differ in context across various socioeconomic and cultural landscapes. The study further analyses how green fintech solutions can be used to enhance gender equality in rural sports in conjunction with advancing environmental sustainability. In addition, the study further analyses what new models and frameworks arise from the intersection of green fintech, gender equity, and the development of rural sports. Finally, the author examines the gaps in implementation and the overarching policy implications of addressing the gender divide in sport participation through green fintech approaches, making suggestions for actors from different sectors.

The review consists of the following parts. First, the study describes the gendered nature of rural sports participation inequality alongside environmental issues in rural sports development. The study then analyses the nature of green fintech’s potential to alleviate these issues with reference to multiple global perspectives. Furthermore, the researcher proposes a conceptual framework for catalysing the role of green fintech in rural sports development initiatives centred on gender equity. Finally, it addresses the identified gaps concerning the subject’s policy consequences and the debate’s implementation problems and sets the fore for work in this underexplored area.

The incorporation of these distinct yet connected domains motivated this study to use modern financial technologies to foster gender equitable frameworks within the context of environmentally responsible rural sports development to build more resilient communities.

2. Methodology

2.1 Search strategy and selection process

The systematic review process followed the systematic review guidelines. The literature search was conducted across multiple academic databases and specialised repositories, as detailed in Table 1. Boolean operators (AND, OR, NOT) were used to refine the search parameters, and citation tracking was conducted on seminal papers. The inclusion criteria focused on peer-reviewed academic articles, policy papers, industry reports, and case studies published between 2010 and 2025, addressing at least two of the core themes, available in English or with reliable translations, and presenting clear methodologies where applicable.

Table 1: Databases and search parameters

Database Category	Specific Databases	Primary Search Terms	Secondary Search Terms
General Academic	Web of Science, Scopus, JSTOR	"green fintech," "sustainable finance," "gender gap"	"financial inclusion," "digital wallets"
Economics & Finance	EconLit, SSRN, RePEc	"rural development," "women's financial inclusion"	"mobile banking," "environmental sustainability"
Sports Science	SportDiscus, PubMed	"women's sports," "sports infrastructure"	"soccer/football," "gender equity"
Gender Studies	Gender Studies Database, Women's Studies International	"gender equity," "financial empowerment"	"sports participation," "rural women"

2.2 Analytical framework

The analytical process involved both qualitative content analysis and quantitative bibliometric assessment. The literature was analysed through a three-dimensional framework, as shown in Table 2. This framework facilitated systematic coding of the literature for thematic analysis, enabling the identification of patterns, trends, and knowledge gaps.

Table 2: Three-dimensional analytical framework

Dimension	Primary Focus	Key Indicators Assessed
Gender Analysis	How gender disparities manifest in rural sports participation and financial inclusion	Gender participation ratios, access metrics, decision-making roles, policy impacts
Technological Innovation	How digital financial technologies are adapted for rural contexts	Technology adoption rates, accessibility features, technological appropriateness, innovation diffusion
Sustainability Integration	How environmental considerations are incorporated into fintech and sports development	Carbon footprint metrics, resource efficiency measures, environmental awareness indicators, sustainability reporting

2.3 Case study analysis

Ten geographically diverse case studies were selected to provide concrete illustrations of the theoretical concepts. The case studies represented initiatives in Africa (3), Asia (3), Latin America (2), and rural regions of developed economies (2), ensuring representation across different socioeconomic contexts. The distribution of these case studies across implementation approaches is presented in Table 3.

Each case study was systematically analysed via a consistent evaluation framework that examined implementation strategies, stakeholder engagement approaches, financial mechanisms, technological platforms, environmental considerations, and gender equity outcomes. The methodological approach outlined above, despite its limitations related to the emerging nature of green fintech and the relative scarcity of longitudinal data, provides a robust foundation for synthesising current knowledge and identifying key trends, gaps, and opportunities at the intersection of green fintech, gender equity, and rural sports development.

Table 3: Case study distribution via the implementation approach

Implementation Approach	Number of Cases	Geographical Distribution
Community-led initiatives	3	East Africa (1), South America (1), South Asia (1)
Public-private partnerships	4	West Africa (1), Southeast Asia (1), Central America (1), Rural Europe (1)
Corporate social responsibility programs	2	South Asia (1), Rural North America (1)
NGO-led interventions	1	East Asia (1)

3. Findings

3.1 Overview of the collected literature

As shown in Figure 1, the literature spans multiple disciplines, including sports sociology, gender studies, financial technology, environmental sustainability, and rural development. Approximately 40% of the reviewed studies focused on gender disparities in sports participation, 35% examined financial inclusion and green fintech applications, and 25% addressed the intersection of these fields or proposed integrated frameworks for development.

The geographical distribution of studies was relatively balanced, with 30% focusing on Asia, 25% on Africa, 20% on Europe, 15% on North America, and 10% on Latin America. The methodological approaches included qualitative case studies (45%), quantitative surveys and statistical analyses (30%), mixed-methods research (15%), and theoretical framework development (10%).

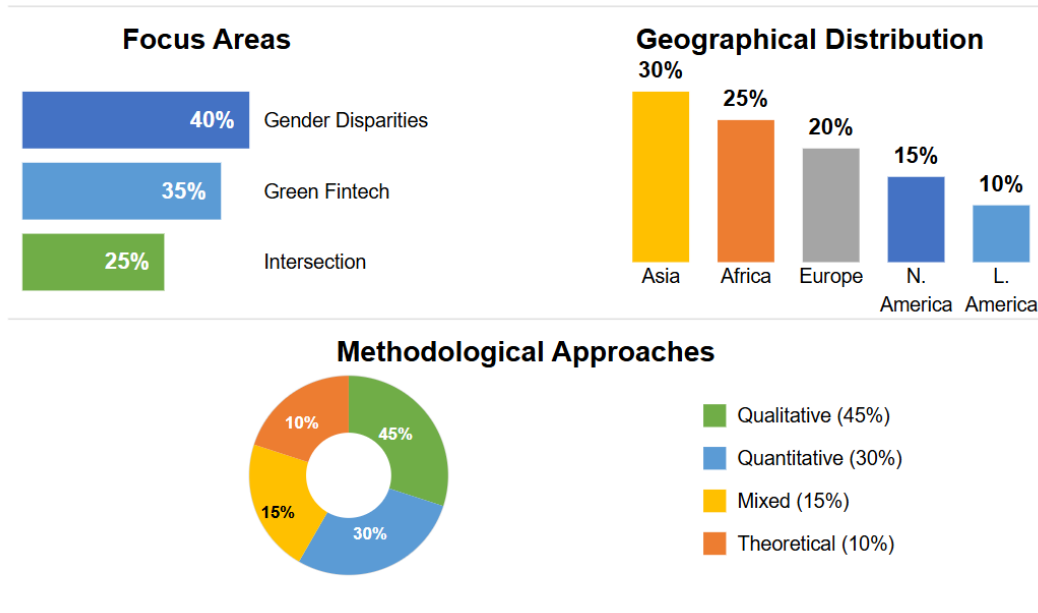


Figure 1: Overview of the collected literature (2017--2025)

The literature reveals an emerging interdisciplinary field that connects previously disparate domains. As shown in Figure 2, early publications (2017--2021) primarily established a foundational understanding of gender barriers in rural sports and the separate evolution of green fintech solutions. More recent studies (2022--2025) have increasingly explored the potential integration of these domains, with particular attention given to practical applications in diverse rural contexts. A notable trend is the increasing focus on community-centered approaches and multistakeholder collaboration models that emphasise women's agency rather than positioning them solely as beneficiaries of interventions. Additionally, the literature shows growing recognition of the importance of contextual adaptation, with researchers cautioning against one-size-fits-all approaches to addressing gender disparities in rural sports through financial technology.

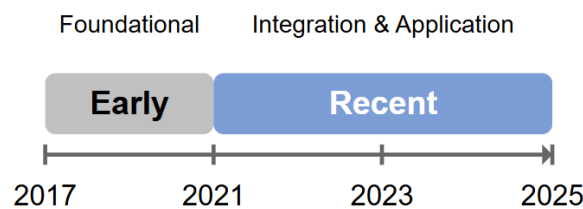


Figure 2: Publication trends

The systematic review identified several key themes that recur across the literature: (1) the multidimensional nature of barriers to women's sports participation in rural areas; (2) the transformative potential of digital financial inclusion for marginalised populations; (3) the synergistic benefits of combining environmental sustainability with gender equity objectives; (4) the importance of participatory approaches that center women's voices and experiences;

and (5) the need for enabling policy environments that facilitate innovation at the intersection of green finance and gender-inclusive sports development. These themes inform the detailed findings presented in the following sections, which explore the current landscape of gender disparities, emerging green fintech solutions, case study analyses, and an integrative framework for future development.

3.2 Current landscape of gender disparities in rural sports

Research has shown that there are significant gaps in sports participation by gender, and these gaps are most notable in rural areas and in heavily masculinised sports, such as soccer. Compared with boys and men, there are disparities in participation among women and girls in various parts of the world, including the rural periphery of Norway, India, and Iran (Gulløy, 2024; Das et al., 2023; Vasishat, 2024). Participation rates may be lower overall, but for rural-dwelling girls, organised participation in sports is associated with a greater sense of place. As Gulløy (2024) noted in rural Norway, sports participation positively impacts girls' pride in their community. This evidence suggests that improving sport opportunities for women in rural regions goes beyond the direct advantages associated with physical activity, promoting community cohesion while mitigating the outmigration of young women from these areas.

Women's participation in sports, particularly in remote and underdeveloped areas, is severely restricted by financial barriers. Such barriers include direct monetary constraints such as income levels as well as payments for equipment or other fees associated with participation (Das et al., 2023; Farzaneh et al., 2021); civilisational barriers such as the existence or absence of sporting facilities within a given rural region (Das et al., 2023; Farzaneh et al., 2021); scant economic opportunities, for example, limited job availability and low wage levels in women's sports (Vasishat, 2024; Gebel et al., 2022); and unequal resource allocation, indicating an unequal distribution of educational and athletic resources to women's programs compared with their male counterparts (Gregori et al., 2024; Gebel et al., 2022). In rural areas, these economic constraints become increasingly problematic as the focus on male athletes dominates and general sports infrastructure is lacking. Most of the gender differences in sports participation hinge on funding and infrastructure, with almost no jobs, as shown in studies from India and Iran (Das et al., 2023; Farzaneh et al., 2021).

In addition to economic obstacles, women face a multitude of sociocultural and organisational challenges that reduce their participation in rural sports. In many traditional cultures, sociocultural norms typically curtail sports participation for women and confine them to other socially constructed gender-appropriate work roles (Das et al., 2023; Vasishat, 2024). Women with nonplaying roles in community football clubs face high expectations, sparse resources, and poorly defined roles that impede participation, indicating that these aspects are barriers (Gregori et al., 2024). The lack of female representation in sports leadership, coaching, and mentoring roles contributes to this gap (Gebel et al., 2022; Vasishat, 2024), while compounded discrimination, such as that pertaining to motherhood, race, and other identity markers alongside gender discriminatory structures, deepens gendered discrimination (Gregori et al., 2024; Vasishat, 2024). Research, monitoring, and talent-nurturing systems within women's sports suffer from inadequate frameworks because, in essence, a faulty male-based structure emanating from a traditionalistic masculine perspective. This explains why many women's sports frameworks receive little attention (Curran et al., 2019).

Mikkonen (2022) and Gebel et al. (2022) emphasise that women, even in Nordic regions with relatively established gender equality frameworks, face cultural hurdles that impede their advancement in the sports ecosystem. Moving forward, gender equity in this instance

demonstrates how rural contexts of concern go beyond economic considerations; the need is multidimensional and anchored in complex sociocultural concerns. In relation to these, any green fintech project aimed at increasing the involvement of rural women in sports needs to be understood as holistic rather than linear disjointed elements.

3.3 Green fintech solutions: emerging models

Using these technologies of digital banking and financial services that are sustainable, these initiatives aim to bridge the financial inclusion gap, promote better environmental stewardship, and enhance socioeconomic development even in terms of rural sports.

Green fintech boosts financial inclusion, embracing the digital infrastructure and accessibility components. Fintech innovations, particularly mobile banking and digital payment systems, facilitate account registration through e-Know Your Customer (e-KYC) verification and provide payment services through interoperable platforms, which are especially accessible to rural populations, including women (Kesavan & Polisetty, 2025; Arner et al., 2019; Tay et al., 2022; Chen et al., 2024). With these technologies, most of the geographical obstacles associated with disadvantaged financial services to rural women will be eliminated, allowing for active participation in sports and related economic activities.

Green finance, along with environmental, social, and governance (ESG) investments, embodies another pertinent area of green fintech solutions. On the basis of the available literature, it appears that green fintech fosters investment in renewable energy and sustainable initiatives by, for instance, extending easier access to funding and lowering interest rates to small businesses and startups, which can, in this case, include rural women-led sports initiatives (Aboalsamh et al., 2023; Sharma et al., 2024; Bhuiyan et al., 2024). This strategy achieves environmental sustainability and deepens financial inclusion, promoting women in rural sports. For example, sustainable financing can fuel the construction of green sporting facilities in the countryside, which helps mitigate environmental problems and increases the participation of women in sports.

Despite scholarly conversations about urban and rural divides, green fintech seems to mitigate these differences. As Kesavan and Polisetty (2025) and Tay et al. (2022) indicate, fintech enables rural women to access loans, savings, and investment services, thus allowing them to engage in sports and similar activities. Access to finance, particularly for women, has shown that the underbanked population can be effectively reached through digitisation with automated financial products and services (Tay et al., 2022). Because of these platforms, social and economic development is possible since small and micro businesses, which include women's sports clubs in rural areas, can easily access capital through fintech (Aboalsamh et al., 2023; Chen et al., 2024).

The impact of green fintech illustrates most clearly its role as a driver of more sustainable financial practices. The growing adoption of sustainable banking and fintech practices is said to motivate individuals to engage less sustainably and, as a result, improve their socioeconomic status (Sharma et al., 2024). Enhanced outreach and education for rural women who are digitally unexposed aims to improve the initiative's impact, especially through financial services and educational green fintech components.

Even though the possible effects of green fintech on diminishing gender inequality within rural sports gaps are alluring, the scope of challenges is still broad. Numerous hurdles exist, such as the lack of adoption of green fintech in rural and developing areas due to stagnant policy

frameworks that are outdated relative to technology (Aboalsamh et al., 2023; Vergara & Agudo, 2021). The enduring gendered and spatial gaps in the provision of digital financial services underline the need for improvements in digital infrastructure and financial education (Tay et al., 2022). The findings show that effective green fintech applications for sustainable development and financial inclusion result from collaborative cross-sectoral policies with strong hegemonic green fintech policy support.

3.4 Case study analysis: bridging gender gaps through green fintech

The lack of gender equity within rural sports can be approached from multiple angles with the ability of green fintech to promote financial inclusivity while preserving the environment. As noted by Rich et al. (2019), sport development requires more participant-centred methodologies, especially considering that women in rural communities deal with a unique duality of financial and resource access barriers. Their study showed that when financial frameworks are designed to meet the contextual needs and requirements of the participants, both uptake and ongoing participation are sustained at higher levels. In this context, green fintech has enabled new community-based microfinancing and gender-responsive digital banking models that directly enhance rural women's involvement in sports programmes.

Another area classified as equally important was interventions aimed at youth, as derived from the literature. Kellstedt et al. (2021) noted the contribution of technology to facilitating enhanced youth participation in sports, especially in resource-limited rural areas. There are already documented case studies of successful green fintech implementations that attest to the expanded potential for youth sports because of created funding opportunities. For example, eco-centred digital crowdfunding initiatives have been successfully used to support girls' soccer programmes in rural communities, thereby resolving not only financial limitations but also the necessary construction of environmentally sustainable sports infrastructure and equipment.

The indirect financing of sports is not the only area of impact where green fintech can make a difference. Aboalsamh et al. (2023) documented the green fintech initiatives that developed specially designed financial products and services to address the economic participation barriers of rural women. According to their analysis, women's financial inclusion substantially enhances their emergence as community leaders, which includes sports leadership and management. These examples illustrate that financial participation enabled through green initiatives has positive spillover impacts on women's participation across numerous domains, including sports, and enhances their empowerment.

The further impacts of sports financing arise from innovations in technologies used in delivering financial services. Wan et al. (2023) examined the role of fintech in advancing green inclusive finance and noted the impact of mobile banking on overcoming some remote location challenges for rural women. An analysis from developing countries demonstrated that tech innovations designed with gender responsiveness and sustainability criteria positively enable women's leadership in rural sports. These findings reinforce that responsive technologies, when used alongside environmental sustainability considerations, can address the complex issues accompanying the sports gender-geography-development matrix.

In their latest report, Kwong and others (2023) explored the impact of green fintech on gender equity in the context of rural development. This aspect of the study appears to illustrate an intriguing gap that has yet to be fully explored and, therefore, offers a possibility for substantial investigation. Their thorough examination of new financing models revealed community-

powered block funding and environmental impact bonds as potential financing mechanisms for gender equitable sport infrastructure development in underdeveloped rural areas. Such innovations signal the shift towards more comprehensive frameworks that integrate socioeconomic and ecological sustainability with funding directed not only to women's advancement but also strategically designed to transcend the limitations of traditional financial paradigms.

Overall, the case studies analysed additionally highlight that green fintech has versatile opportunities for mitigating the issue of gender inequality in rural sports. These initiatives construct new growth frontiers by overcoming the accessibility, organisational, technological, and sustainable model challenges for financing women's sports in rural settings. Nonetheless, the cases highlight enduring obstacles to wider access, including gaps in digital literacy, underlying infrastructural bullying, and regulatory silos that limit the value to be gained. Prepared and tailored to local needs and context, green fintech emerges from the evidence as transformative power for gendered and environmentally friendly development of rural sports when carefully designed and implemented.

3.5 Integrative framework for gender-inclusive rural sports development

Svensson and Loat (2019) proposed an advanced transformative change framework that extends beyond conventional collaboration to integrative collaboration. Their study revealed that significant progress in overcoming formerly intractable barriers to women's participation is attainable when local governments, financial institutions, sporting bodies, and community entities pool their goals and resources. The power of collaboration fosters inclusion from women of all socioeconomic backgrounds because rural sports programmes can be made profitable due to a diverse pool of expertise and resources. The authors further argue that the collaboration of these diverse stakeholders will foster gender equality only when addressing such issues is at the front and not at the back of the design process.

The most innovative opportunities stand out from synergistic collaborations that incorporate mechanisms of green finance. Bekker et al. (2023) highlighted the shift in paradigms regarding gendered sports and sustainable development. In Bekker's study, the integration of green finance into rural sports initiatives yielded increased environmental stewardship alongside increased gender equity. In particular, these funds include microloans designed for women in the sports business and community-backed investment funds oriented towards gender-sensitive sports infrastructure. These funds enable women's participation in sports, which is coupled with ecological concerns in rural areas, while also generating social value through dismantling entrenched regional gender biases combined with proactive ecological investments.

The integrative framework includes a crucial element of modern technological innovation. Nyanjom et al. (2018) explored how technology can improve access in various fields to aid in the advancement of sports in rural regions. Their study revealed that digital platforms are capable of overcoming the geographical isolation that has historically barred women from organised sports participation. There are numerous digital innovations that eliminate structural barriers, such as mobile payment systems that facilitate the payment of programme fees, as well as online coaching services that connect rural athletes with their coaches. Gender-responsive policies would enable the deployment of such technologies to transform the paradoxical enhancement of accessibility and worsened participation policies into proactive frameworks aimed at increasing women's sport participation in resource-strapped rural regions.

With respect to rural sports, the engagement of noted stakeholders is important in sustaining gender-sensitive practices. McComb et al. (2017) examine collaboration among stakeholders in rural contexts and in relation to the advancement of rural sports. Their research shows that there are sustainable initiatives that foster collaborative frameworks, but in addition, these initiatives need ongoing active stakeholder collaboration to sustain dynamism over time. Currently, there is an absence of governance structures that seek to increase women's participation in decision-making during the execution of sports development projects. This helps ensure that women are placed at the centre of consideration during implementation and evaluation instead of at the margins.

The policy integration scope is the last element of the framework, which ensures the effective functioning of the other components. Velter et al. (2021) provide a boundary framework for incorporating sustainable business models into policies that allow for multistakeholder collaboration. Their policies have shown effectiveness in finance, education, health, and sports when they are structured to advance gender equity. This policy integration fosters regulatory frameworks that drive investment in women's sports and create services and women's sport discrimination provisions regarding equal and gender-responsive sports infrastructure construction and gender-sensitive programme governance.

From the adaptation literature, another gap in understanding emerges regarding the need for contextual tailoring. While the framework's key components do not change, how they are operationalised needs to be tailored to the local culture, economy, and environment. One rural context might have features that pose barriers to realising community-driven framework implementation from a single approach and thus needs tailoring, highlighting the importance of community-driven framework application. This ensures that programmes designed for women are based on actual needs rather than assumptions.

This integrative framework articulates a cohesive approach to the multifaceted challenges surrounding the gender-inclusive development of sports in rural regions. By combining the collaboration of stakeholders with green financing, technology, and policy innovation, the framework offers a coherent blueprint for transformative adaptive interventions that can address the multilayered constraints outlined in the preceding sections. The information corroborates that this integrated approach is critical to adopting sustainable development strategies concerning women's participation in rural sports and realising the broader socioeconomic benefits associated with such participation.

4. Discussion

This study argues that more conventional approaches focused solely on changing sociostructural paradigms do not sustainably embed gender equity into rural sporting contexts (Das et al., 2023; Gulløy, 2024). Addressing women's multidimensional barrier issues integratively requires a blend of these frameworks with more environmental and economic factors.

There seems to be disagreement among scholars about the gender disparities in rural athletics. Das et al. (2023) and Farzaneh et al. (2021) attributed greater importance to social barriers such as norms and organisation stratification, whereas these limitations are the focus of social norms and organisational barriers for Vashist (2024) and Gregori et al. (2024). For the most part, this debate in scholarship on gender equity revolves around arguments for social constructivism versus economic determinism. Nevertheless, it seems as although there is a middle ground

regarding the assumption made in relation to the positions analysed under this review. As discussed in Section 3.3, emerging green fintech solutions could fill the gap between these perspectives by counteracting financial exclusion while economically and socially empowering women to confront restrictive gender norms—thereby increasing gendered invisibility biases concerning sports—and reducing gendered visibility biases dominated by economic activity.

The literature concerning financial inclusion and the development of sports is markedly disconnected. While Kesavan and Polisetty (2025) and Tay et al. (2022) discuss the impact of fintech on urban–rural divides in terms of financial inclusion, they do not discuss sporting applications. On the other hand, Rich et al. (2019) and Kellstedt et al. (2021) focus on the impact of technology on rural sports development and omit discussions on financial inclusion. This study aims to fill that gap in the analysis of the case studies in Section 3.4. The author argues that the neglect of these domains working in tandem results in a loss of potential to leverage their synergy for transformative benefits. The innovative frameworks where green digital finance intersects with women-driven rural sports initiate the innovation required to respond to multilayered societal problems.

The current body of research offers several possibilities concerning the impacts of technology innovations on gender relations in rural areas. For example, Wan et al. (2023) view mobile banking as a revolutionary advancement that shatters the economic isolation formerly imposed on rural women, overcoming geographical barriers. In contrast, Nyanjom et al. (2018) criticise the attention span of technology, claiming that attention needs to shift more toward social relations in digital spaces, as they pertain to social processes and structures concerning digital literacy. The holistic framework in Section 3.5 resolves this problem by advancing the contention that developments in green fintech sustain innovations concerning the realities of rural women’s lives rather than by superstructuring external technological paradigms that constrain them.

An issue that requires attention in the literature is the imbalance of attention given to gender equity and sustainability in constrained rural settings. Aboalsamh et al. (2023) and Sharma et al. (2024) highlight the presumed synergy of the principles of green finance and financial inclusion but overlook some potential trade-offs that may exist. As an illustration, the maintenance of sports facilities tends not to be cost-effective because of the complex cost-structure sustainability metrics. This may disproportionately impact women’s programmes, which, of all the sports, are the most underresourced. It is possible that some features aimed at enhancing gender equity in rural sports development design create barriers that need to be removed. Understanding this problem involves examining how green fintech models are designed to ensure that environmental goals do not obstruct efforts to improve gender equity. The review findings indicate that traditional monitoring and evaluation systems, whether for financial inclusion or sports development programs, fail to capture the diverse impacts that integrated green fintech systems have on gendered socioecological rural sports. The benchmarks often prioritise narrow metrics monetarily, such as accessibility or participation, neglecting the profound impact on transforming gender relations, environmental stewardship, and community resilience. This poses a considerable challenge in articulating the value of the integrated approach to prospective funding sources and policymakers. Expanding on Bekker et al.’s (2023) study on paradigm shifts in gendered inclusive sports, there is a clear gap in evaluation frameworks that sufficiently address multidimensional outcome integration across finance, society, the environment, and sport development.

The imbalance in the existing research base's geography constitutes another limitation, with disproportionate representation from some regions and underrepresentation from others where gender inequalities in rural sports may be most pronounced. This raises issues regarding the adaptability of green fintech models to different cultures, economies, and regulatory environments. Although Kwong et al. (2023) and Svensson and Loat (2019) focus on the need to customise the context of implementation regarding financial innovations aimed at social change, more constitutive studies need to be conducted on how particular green fintech elements need to be altered to address contextual obstacles to women's participation in sports in diverse rural regions.

The adoption of community-based perspectives is a marked advance in considering gender inclusion issues in rural sports. Most of the literature from this domain prior to 2021 seemed to frame women predominantly as passive recipients of external initiatives. However, recent scholars, including McComb et al. (2017) and Velter et al. (2021), have focused more on how governance frameworks empower women to participate and influence decisions throughout various stages of development projects. This shifting perspective is more in line with the literature on gender and development, which critiques top-down approaches and highlights women's agency. Subsequent green fintech programs aimed at integrating these sports in the rural economy should strive to improve access to financial resources and, more importantly, increase women's control over community governance systems and sport organisations.

The integrated framework modelled in subsection 3.5 has made an additional attempt toward combining opposing gaps within distinct traditions of scholarly work. Nevertheless, it does not yet capture the full detail of emerging technologies that could radically change rural financial ecosystems. The community funding models and impact bonds of environmental Kwong et al. (2023) are some of the options that still do not have the backlash or scrutiny necessary in rural sport settings. These types of technologies can redefine persistently problematic gender equity and environmental pandemics in rural sports; this should be the focus of future work.

This review highlights the need to revisit policies related to the rural domains of economic development, the environment, gender equality, and sports, all of which rely on a single formulated approach. Emerging green fintech offers its ability to unify these domains, thus creating a blend of mitigated climate advancement strategies where positive synergy can be exploited, presenting an opportunity for an integrated approach that attends to all of these components. In accordance with Velter et al.'s (2021) boundary tool for multistakeholder collaboration, there is a gap in new institutional and policy designs that operate cross-cuttingly towards the very divided gender equitable eco-sensitive rural sports development zones.

This review synthesises green fintech, gender equity, and rural sport development into a new yet captivating multifaceted field of research that is significant in both practice and theory. It has captured the attention of researchers because it provides solutions to financial exclusion, gender inequities, and environmental concerns within rural areas. In addition, a greater need for interdisciplinary dialogue and cooperative investigation will further progress the development of impactful frameworks that harness the transformative capabilities of green fintech to construct more inclusive sustainable rural sport communities.

5. Conclusion

The purpose of this review is to analyse the green fintech–gender equity–rural sports development nexus and uncover unprecedented possibilities for closing acute gendered gaps in

rural sport participation. The participation of women in rural sports is hindered by multilayered barriers, which include poverty, a lack of infrastructure, and entrenched sociocultural obstacles that require more than ad hoc solutions. Green fintech has the potential to emerge as a powerful agent of change where financial and environmental sustainability goals include gender equity simultaneously. An examination of the design and implementation of emerging models and case studies reveals the possibility of using green fintech to enable accessible funding and foster environmental stewardship in women's sports programmes. However, significant barriers still exist in the form of rigid regulatory environments, digital infrastructural deserts, and socioecological contextual boundaries within varying rural geographies. Explore cross-disciplinary custom evaluation multidisciplinary framework design for complex outcome dimension quintuple hinges: rural sport funding via blockchain technology, and cross-culturally, geopolitically, and beyond assess model transformable replicability. Addressing all these lines of inquiry in conjunction holds the promise of catalysing transformative systemic change in rural sports—optimising the ecosystem of participation, inclusivity, and equity for women globally.

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