


# Innovating the Business of Sport: A Systematic Review of Cross-Industry Business Model Innovation with a Focus on Fitness

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## Abstract

**Purpose:** This study aims to examine how business model innovation (BMI) practices from various industries can inform the development of innovative and adaptive business models in the sports sector, particularly in fitness. By identifying transferable strategies, the research seeks to support the application of cross-industry innovation to enhance resilience, value creation, and sustainable growth in sport industry.

**Methods:** A systematic review was conducted following the PRISMA framework. Relevant studies were retrieved from Web of Science and Scopus. The initial search yielded 426 records, which were manually analyzed using thematic synthesis techniques. After removing duplicates and applying inclusion criteria, 41 studies were selected for final analysis.

**Result:** Analysis of 41 studies reveals that digitalization, consumer shifts, and market disruptions drive business model innovation in sports and fitness. Key innovations include hybrid digital-physical models and hyper-specialization, enabled by AI and data analytics to transition from services to outcome-based offerings. Cross-industry adaptations enhance resilience, diversify revenue, and improve customer loyalty. Critical gaps remain in long-term sustainability and ethical data implementation.

**Conclusion:** This review concludes that Business Model Innovation (BMI) is a critical catalyst for transformation, pivoting the sports industry towards a hybrid, intelligent, and experiential future. However, this evolution is challenged by concerns regarding long-term economic sustainability, data ethics, and digital equity. Future success necessitates strategic ambidexterity from practitioners balancing innovation with core stability and further interdisciplinary research into the longitudinal impacts and inclusive design of these models to ensure equitable and viable industry growth.

**Keywords:** Business Model Innovation; Digitalization; Fitness Sector; Sports Industry

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## Introduction

Business model innovation (BMI) has emerged as a critical strategic imperative, fundamental for organizations seeking to achieve sustainable competitive advantage, profitability, and resilience within dynamic, technology-driven markets (Bhatti et al., 2021). Distinct from product or process innovation, BMI entails the reconfiguration of an organization's activity system to fundamentally redefine how value is created, delivered, and captured, enabling firms to effectively respond to external disruptions and evolving consumer demands.

The conceptual understanding of business models and their innovation has evolved over several decades. While its origins can be traced to system modeling in 1970s IT contexts (Pieroni et al., 2019), contemporary BMI research focuses on enabling firms to respond effectively to external disruptions and evolving consumer demands. The transformative power of BMI is evidenced across diverse industries. In manufacturing and retail, cognitive methodologies guide firms in adapting their activity systems to market volatilities (Aspara et al., 2010; Bhatti et al., 2021).

The food sector demonstrates how startup business model innovation drives financial growth (Franceschelli et al., 2018), while in IT, its success is linked to knowledge absorptive capacity and strategic agility (Sosna et al., 2010). Furthermore BMI serves as a mechanism for corporate sustainability, integrating environmental and social goals with economic success (Schaltegger et al., 2012) and in healthcare, emerging technologies like the metaverse are fostering innovative virtual care models (Bansal et al., 2022). These examples underscore BMI's broad applicability in augmenting business models and facilitating value creation (Ramdani et al., 2019).

The transformative potential of business model innovation is paramount within the sports industry, where accelerated market shifts and

heightened competitive pressures necessitate the development and implementation of novel business models that concurrently optimize revenue streams and augment audience engagement and experiential quality to ensure sustained growth.

This capacity is particularly acute in the sports industry, where digitalization acts as a primary catalyst. Organizations are transitioning from traditional revenue streams (ticket sales, media rights) to novel, diversified models based on online platforms, subscriptions, and data monetization (Wang, 2024). External shocks, such as the COVID-19 pandemic, have accelerated this digital transformation, forcing innovations in operational frameworks and risk management, as seen in adaptations like digital archiving and scenario-based budgeting (Tettamanzi et al., 2023). This evolution is further advanced by cutting-edge technologies: blockchain introduces transparent and secure value exchange mechanisms (Lv et al., 2022).

In the sports industry, the metaverse drives business model innovation by enabling immersive digital ecosystems that enhance engagement with Generation Z through interactive, gamified value propositions and virtual platforms, transitioning from traditional to decentralized structure (Hussain et al., 2025) and data analytics and complementary digital experiences (CDXs) are leveraged to redefine stakeholder value propositions and build resilience (Hammerschmidt et al., 2023; Li, 2024).

Similarly, the fitness industry is undergoing a profound transformation driven by BMI. The proliferation of wearable technologies, mobile applications, and data-driven training systems is reconfiguring service delivery paradigms towards remote coaching and personalized planning (Newsome et al., 2024). This technological integration is strategic, with leading enterprises adopting an "AI-first strategy" to augment physical assets with interconnected, intelligent systems, thereby

redefining their competitive landscape (Ruokonen & Ritala, 2023).

The study focuses on the fitness industry, specifically small fitness enterprises, wherein business model innovation was strategically implemented through transitional modifications—such as employing a trial-and-error methodology to reconfigure value propositions and integrating temporary adaptations like digital service delivery—derived from semi-structured interviews with key stakeholders, to augment resilience, ensure operational continuity, and reinforce customer retention during the COVID-19 disruptions (Budler & Božič, 2024).

Through a synthesis of this extant literature, this review paper develops a consolidated insight into the mechanisms for creating and managing innovation within the sports business model. Our research focuses on understanding the implications of prioritizing business model innovation over mere replication and examines case studies of successful BMI implementations. By analyzing these patterns across digitalization, disruption, and technology adoption, this paper aims to provide actionable insights for practitioners and policymakers seeking to navigate the complexities of the

modern sports ecosystem and foster innovation within sports organizations.

## Materials and Methods

In this study, a systematic literature review (SLR) was conducted. This evidence-based approach is instrumental in identifying, evaluating, and synthesizing all relevant scholarly research on business model innovation (BMI) within the sports and fitness industries, thereby ensuring a comprehensive and unbiased analysis. The methodological framework for this review adhered to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Liberati et al., 2009), ensuring transparency and rigor throughout the process. Our systematic review process entailed four distinct stages: (1) formulating research questions; (2) developing a search strategy; (3) study selection based on eligibility criteria; and (4) data extraction, analysis, and synthesis.

The primary aim of this review is to synthesize existing knowledge on business model innovation, with a specific focus on its application and transferability to the sports and fitness sectors. To guide this exploration, we formulated the research questions (RQs) presented in Table 1.

**Table 1- Research Question**

Research Question	Objective
What are the predominant drivers and characteristics of business model innovation in the sports and fitness industries?	To identify and categorize the key external factors (e.g., digitalization, COVID-19), technological enablers, and core characteristics of innovative business models within the domain.
What cross-industry BMI possess transferable potential to the sports and fitness sectors?	To analyze BMI case studies from other industries (e.g., IT, healthcare, food) and extract transferable strategies, value propositions, and operational frameworks.
What are the documented outcomes and implications of implemented BMI strategies for sports and fitness organizations?	To synthesize evidence on the impact of BMI on organizational performance, including revenue diversification, customer engagement, resilience, and sustainability.
What are the identified gaps and future research directions for BMI in the sports and fitness context?	To consolidate limitations within the current body of literature and propose a focused agenda for future academic and practical exploration.

To ensure a comprehensive retrieval of relevant studies, a structured search strategy was designed and executed. The search targeted two

major interdisciplinary databases, Web of Science and Scopus, renowned for their extensive coverage of high-quality peer-

reviewed. The search syntax combined terms related to the core concept of "Business Model Innovation" with terms related to the "Sports" and "Fitness" industries. Synonyms and related terms from key studies were incorporated to maximize scope. The final search string used was:

("business model" OR "business model innovation" OR "value proposition" OR "revenue model") AND ("sport" OR "fitness" OR "athletic club" OR "gym"). This search string was iteratively refined through pilot

searches and consultation with subject experts to balance sensitivity and specificity.

The study selection process followed the stages outlined in the PRISMA flowchart (Figure 1). The initial database searches yielded 426 records. After importing these records into a citation manager, 237 records were removed automatically and manually. The remaining 189 records underwent a preliminary screening based on their titles and abstracts against the eligibility criteria detailed in Table 2.

**Table 2- Literature selection criteria**

Category	Inclusion Criteria	Exclusion Criteria	Justification
Language	English	Non-English	English is the primary language of academic discourse in this field.
Publication Date	Since 2000 to 2024	N/A	To capture the full evolution of BMI discourse relevant to the sports industry.
Publication Type	Peer-reviewed journal articles, conference proceedings, book chapters	Editorials, opinion pieces, books, non-peer-reviewed literature	To ensure the inclusion of empirically and theoretically rigorous research that has undergone scholarly review.
Access	Full text available	Abstracts only	Full-text access is necessary for in-depth analysis and data extraction
Topic & Context	Explicit discussion of business models, business model innovation, or business strategies within the context of the sports or fitness industry or industries whose business model innovation can be applied to the sports industry.	Studies focused solely on technological, product, or process innovation without addressing the business model. Studies focused on sports performance or physiology without a business dimension.	To maintain a sharp focus on the innovation of the business model itself, rather than its supporting elements.

Following the title and abstract screening, 45 studies were deemed potentially eligible for inclusion. The full texts of these articles were thoroughly assessed, resulting in the exclusion of 4 articles that did not meet the inclusion

criteria upon closer examination. Ultimately, 41 studies were selected for final data extraction and synthesis. The detailed process is depicted in the PRISMA flow diagram below (Figure 1).

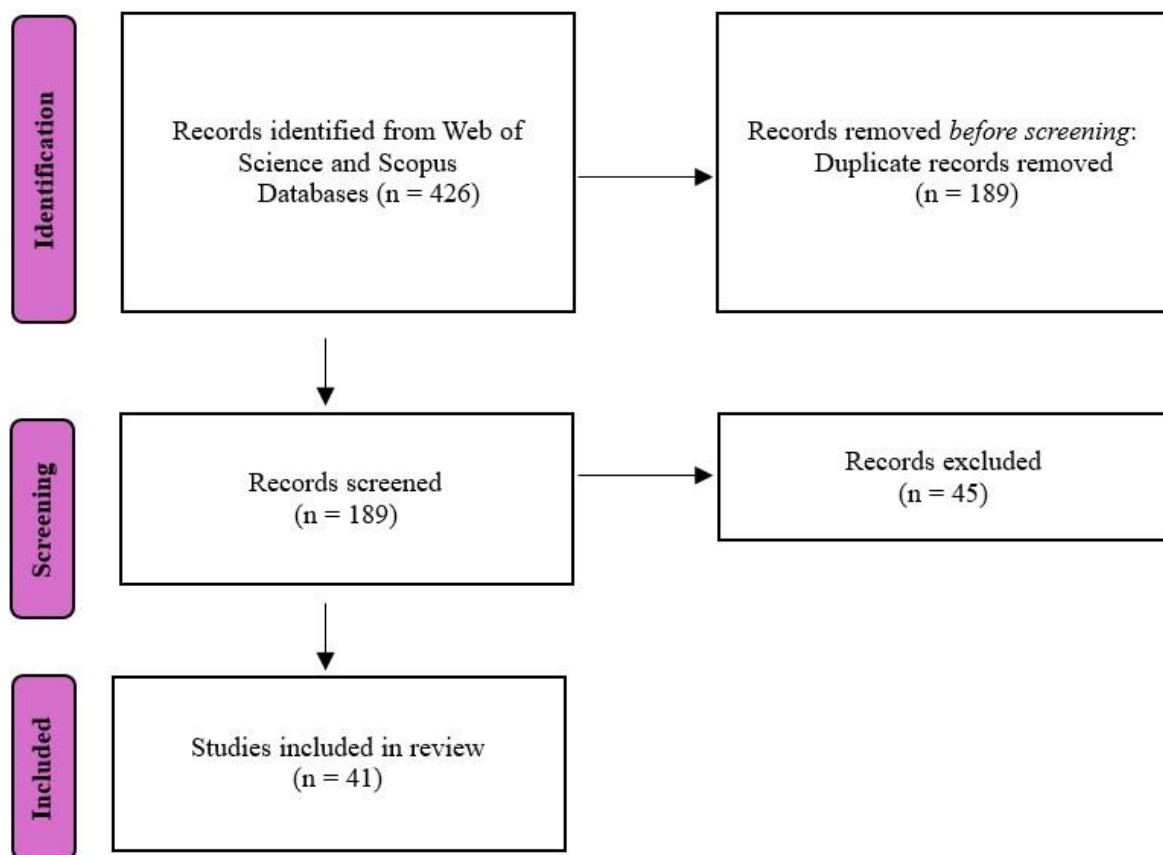


Figure 1. Identification of studies via databases and registers

## Results

The systematic selection process yielded 41 studies for final synthesis. The analysis of these studies reveals a rich tapestry of business model innovation (BMI) across multiple sectors, with significant implications for the sports and fitness industry. The findings are presented to address the predefined research questions, delineating the drivers, transferable models, outcomes, and research gaps.

The primary catalysts for BMI in the sports and fitness sector are digitalization, external disruptions such as the COVID-19 pandemic, and evolving consumer expectations for personalization and flexibility. A predominant characteristic of innovative models is hybridization, which refers to the integration of physical and digital service delivery. This is evident in the adoption of transitional models that enable fitness businesses to pivot seamlessly between in-person and online offerings, thereby enhancing operational

resilience(Budler & Božič, 2024; Ntovoli et al., 2024; Rada & Szabó, 2022). Furthermore, the industry is witnessing a strategic move towards hyper-specialization, targeting niche markets with tailored value propositions. This trend is exemplified by the success of female-only gyms that cultivate a specific community environment(Wang et al., 2022) and the development of specialized programming for demographic segments such as seniors and teens(Newsome et al., 2024). Central to these innovations is the role of technology as a mediator of value, with AI, VR, and data analytics being deployed to deliver unprecedented levels of personalization, from AI-driven workout algorithms to immersive metaverse experiences for fan engagement(Hussain et al., 2025; Ruokonen & Ritala, 2023; Wang, 2024). A consequential shift in monetization strategy is also underway, moving from selling services to selling

measurable, data-verified outcomes, a transition fundamentally enabled by pervasive tracking and AI integration (Ruokonen & Ritala, 2023).

The review identified several innovative business models from adjacent industries with high transferability potential. The healthcare sector's exploration of the metaverse for virtual care (Bansal et al., 2022) presents a blueprint for creating immersive, remote fitness and rehabilitation programs, effectively transferring value from physical access to digital immersion. Similarly, the customer-centric, platform-based model prevalent among health app developers, which prioritizes user engagement, self-tracking, and data monetization, is directly applicable to fitness apps and wearable-tech-integrated gym services (Rose et al., 2017). From high-tech manufacturing, frameworks like the "Wheel of Business Model Reinvention" (Voelpel et al., 2004) provide a structured methodology for sports organizations to continuously challenge and reinvent their value logic, advocating for a move beyond incremental improvement. E-business strategies, including viral marketing, user-generated content communities, and on-demand service aggregation, offer viable models for sports teams and fitness influencers seeking to build digital communities and monetize content (Zhang et al., 2012). Perhaps the most radical transferable innovation originates from sectors like automotive and agriculture, exemplified by the AI-first strategy. This model, analogous to John Deere's shift from selling machinery to guaranteeing agricultural yield, proposes a future for fitness centered on selling personalized health outcomes instead of generic gym memberships (Ruokonen & Ritala, 2023).

The documented outcomes of implementing these BMI strategies are multifaceted. Organizations employing hybrid and transitional models demonstrated significantly enhanced resilience, allowing them to

withstand disruptive events like the COVID-19 pandemic by mitigating revenue losses and maintaining customer retention (Budler & Božič, 2024; Tettamanzi et al., 2023). BMI also facilitates substantial revenue diversification, creating new streams through digital subscriptions, online pay-per-class models, token-based fan economies, and data monetization, thereby reducing the historical reliance on traditional sources like ticket sales and media rights (Lv et al., 2022; Wang, 2024). Furthermore, models that prioritize community building, deep personalization, and strategic gamification report markedly higher levels of customer satisfaction and loyalty, a finding consistent across boutique fitness studios, gamified sports apps, and metaverse engagement platforms (Baena-Arroyo et al., 2020; Chapman et al., 2021; Hussain et al., 2025). From an operational standpoint, low-cost business models leverage technology to optimize self-service operations, significantly reducing overheads and improving resource efficiency (García-Fernández, Gálvez-Ruiz, et al., 2018).

Despite these advancements, the review identified critical gaps in the current literature. A predominant focus exists on short-term, often reactive BMI, particularly those driven by the pandemic, leaving a significant gap in understanding the longitudinal sustainability and financial performance of these innovative models. Furthermore, there is a notable deficiency in research on BMI strategies that incorporate principles of inclusive design to address digital equity and ensure access for populations with limited technological literacy or resources. The ethical implications of extensive data usage and gamification as a mechanism of behavioral control, alongside an underdeveloped regulatory landscape for digital sports services, present another area requiring urgent scholarly attention (Chapman et al., 2021).

Researcher(s)	Title Main	Finding
(Farsi et al., 2019)	Identifying factors of fitness between business model and entrepreneurial opportunity for effective opportunity exploitation	The paper identifies eight critical factors essential for aligning a business model with entrepreneurial opportunities in the ICT industry, facilitating effective opportunity exploitation. These factors, derived from interviews with 20 academics and entrepreneurs, include: <b>Innovation and Creativity</b> , highlighting novel value propositions and employee creativity; <b>Market Intelligence</b> , focusing on deep market and competitor insights; <b>Quality Management Standards</b> , emphasizing high-quality offerings and standardized control; <b>Product Development</b> , stressing continual refinement and skilled teams; <b>Optimizing Resource Combination</b> , ensuring efficient resource use; <b>Flexibility</b> , enabling adaptation to market changes; <b>Effectiveness of Learning</b> , fostering ongoing improvement through knowledge sharing; and <b>Agility</b> , ensuring swift responses to environmental shifts. The paper underscores that dynamic, adaptable business models leveraging these factors are vital for ICT companies to remain competitive and achieve sustainable success in a rapidly evolving market.
(Stock et al., 2004)	Developing a Comprehensive Interdisciplinary Senior Healthcare Practice	The PeaceHealth Senior Health and Wellness Center (SHWC), grounded in the Chronic Care Model (CCM), provides a framework for delivering comprehensive, interdisciplinary, and patient-centered care to frail seniors with multiple chronic conditions. Key features include an interdisciplinary care team, a focus on high-risk patients, integration of services, and collaboration with community organizations. The model emphasizes quality improvement, patient engagement, and team effectiveness while addressing the financial sustainability of care. Although it has shown improvements in access and quality, further research is needed to compare its outcomes with traditional care models.
(van der Krogt)	EARLY AND FAST INTERNATIONALIZATION OF HIGH-TECH START-UP FIRMS	The collection of studies highlights diverse findings across entrepreneurship, innovation, marketing, human resources, and ethics. Key insights include the challenges SMEs face in accessing funding and financial support, the role of innovation in enhancing competitiveness, and the importance of aligning R&D with business strategies. Marketing strategies, such as leveraging social media and real-time data, can improve consumer engagement, while organizational culture and diversity significantly impact employee motivation and satisfaction. Ethics and CSR are shown to positively influence company performance, though their adoption varies. Other findings emphasize the need for managerial skills in migrant entrepreneurship, the nuanced effects of gender diversity on boards, and the limitations of certain tools, like Kohonen's networks, for predicting bankruptcy.
(Chapman et al., 2021)	Seduction as control: Gamification at Foursquare	The paper highlights gamification as a form of seduction and post-disciplinary control in platform organizations, using Foursquare as a case study. It shows how gamification motivates users through positive emotions like fun, achievement, and community, employing elements like badges, leaderboards, and virtual rewards to encourage specific behaviors and generate biodata. This "bioverse" of symbolic exchange fosters community and altruism among users while masking the underlying commodity exchange, where user-generated data is monetized by the platform. The study frames gamification as a

		pleasurable yet powerful mechanism of biopower, distinct from traditional coercive forms of control.
(Arlati et al., 2019)	A Social Virtual Reality-Based Application for the Physical and Cognitive Training of the Elderly at Home	Social Bike is a virtual reality-based application designed to provide frail elderly individuals with Dual Task (DT) training at home to reduce fall risks and promote social participation. By combining stationary cycling with cognitive tasks, it improves balance and cognitive function, essential for Activities of Daily Living. The system includes social engagement features like multiplayer modes, voice chat, and integration with a social media network to combat isolation. Customized training ensures suitability for diverse users, and progress is monitored through data-driven measures. Currently in clinical validation, Social Bike aims to enhance physical, cognitive, and social well-being in a home setting.
(Lyons, 2020)	Walking as a service – Does it have legs?	The paper introduces "Walking as a Service" (WaaS) as a concept that leverages technology, like smartphone navigation apps such as Google Maps, to make walking a more appealing and sustainable mode of transportation in urban areas. WaaS addresses cognitive barriers to walking, such as wayfinding challenges, by offering real-time guidance, estimated travel times, and augmented reality features. It creates a win-win-win model benefiting pedestrians, businesses, and tech providers through improved walkability, increased visibility, and data monetization. By promoting walking as a primary mode of transport, WaaS supports urban mobility goals, sustainability, and economic growth.
(Newson et al., 2013)	Behavior changes for better health: nutrition, hygiene and sustainability	The paper highlights that <b>consumer behavior change is crucial to addressing global challenges in health, nutrition, and sustainability, requiring a multi-faceted approach that integrates scientific insights, practical interventions, and collaborative partnerships.</b> It emphasizes the importance of addressing areas like hygiene, nutrition, and sustainable living through systematic behavior change strategies, such as Unilever's Five Levers for Change model and public-private partnerships. By combining evidence-based interventions, education, and scalable solutions, the paper advocates for collective efforts to promote healthier, more sustainable lifestyles globally.
(Wang et al., 2022)	Marketing strategies of the female-only gym industry: A case-based industry perspective	The paper finds that <b>female-only fitness centers like Curves succeed by creating a comfortable, supportive environment tailored to women's needs and employing marketing strategies that build trust and emotional connections.</b> By focusing on community, transparency, and personalized fitness programs, Curves differentiates itself through its "3M" (No Men, No Mirrors, No Makeup) and "3F" (Fun, Fast, Fitness) strategies. Its targeted marketing mix, strategic location choices, and engagement in community and charitable activities further strengthen its appeal, offering a unique business model that prioritizes women's preferences in the fitness industry.
(Fox & Vahala, 2022)	Start-Ups as Adaptable Stable Systems Based on Synchronous Business Models	This paper finds that <b>start-ups can enhance their survival by acting as adaptable, stable systems synchronized with their environments, using business models based on natural science principles.</b> The proposed method involves monitoring key survival parameters like cash flow and customer base, predicting and correcting errors, and avoiding maladaptation through a balance of simplicity and complexity.

		Developed through action research, the method is accessible, applicable across all start-up stages, and emphasizes iterative learning to help start-ups align with their environments and ensure long-term viability.
(Walker et al., 2024)	Navigating complexities: clinicians' experiences and systemic challenges in the implementation of evidence-based practice for chronic low back pain – a qualitative study	This paper highlights that <b>the implementation of evidence-based practice (eBP) for chronic low back pain (clBP) is shaped by a complex interplay of clinician factors, systemic influences, and patient interactions.</b> Clinician misunderstandings of eBP, systemic barriers like funding models prioritizing non-eBP treatments, and patient expectations for passive care all pose challenges. These interconnected factors require comprehensive strategies addressing clinician education, patient health literacy, and systemic healthcare reforms to improve eBP adoption effectively.
(Budler & Božič, 2024)	Adopting Transitional Business Models in Small Fitness Businesses in Response to Business Disruptions	The study finds that small fitness businesses can successfully navigate disruptions, like the COVID-19 pandemic, by adopting a trial-and-error approach to business model adjustments, leveraging dynamic capabilities, and prioritizing customer loyalty. Key strategies include employing flexible, transitional business models for iterative adaptation, enhancing value propositions with comprehensive and personalized services, embracing digitalization, and fostering resilience through dynamic capabilities like flexibility, absorptive capacity, and resource recombination. These efforts enabled businesses to mitigate revenue losses, maintain customer retention, and adapt to evolving market conditions, highlighting the importance of adaptability and customer-centric approaches in uncertain environments.
(Bansal et al., 2022)	Healthcare in Metaverse: A Survey on Current Metaverse Applications in Healthcare	The paper highlights the transformative potential of the metaverse in healthcare, offering solutions across domains such as telemedicine, clinical care, education, mental health, physical fitness, veterinary medicine, and pharmaceuticals. It underscores the role of technologies like AR, VR, AI, and blockchain in improving healthcare accessibility, quality, and efficiency while addressing challenges like hardware limitations, data privacy, and legal issues. Although the metaverse promises immersive, interoperable, and innovative healthcare applications, its widespread adoption depends on resolving technical, ethical, and regulatory hurdles.
(Ntovoli et al., 2024)	Traditional exercise vs. online fitness classes: a comparison based on participants' enjoyment	The paper finds that while traditional fitness classes are more enjoyable, online fitness classes still provide satisfactory enjoyment and can serve as a valuable complementary service for fitness clubs. Key factors influencing enjoyment include positive health outcomes, quality communication, well-designed online programs, and user-friendly platforms. By improving these service quality dimensions, fitness clubs can enhance participant satisfaction, cater to diverse preferences, and expand their offerings to include online classes as a flexible and profitable alternative.
(Rada & Szabó, 2022)	The impact of the pandemic on the fitness sector – The general international situation and a Hungarian example	The COVID-19 pandemic drastically impacted the fitness industry, causing revenue losses, a decline in gym memberships, and a shift toward online and outdoor fitness options. This study highlights the need for fitness centers to adopt a hybrid model that combines in-person and online services, prioritize hygiene, and leverage digital technologies to meet evolving consumer preferences. Emphasizing health, wellness,

		and adaptability, the paper underscores the importance of flexible business models to ensure long-term sustainability in a changing market.
(M. I. Fursanov1), 2020)	Specialized Mobile Applications as Means of Optimizing the Power Supply System of the Republic of Belarus	This paper highlights the potential for specialized mobile applications to optimize the power supply system in Belarus by improving service efficiency, enhancing customer experience, and delivering economic benefits. These apps can provide real-time information, streamline bill payments, improve communication, and address energy supply issues. For suppliers, mobile apps can increase customer loyalty, reduce energy theft, and support grid modernization. The study also outlines a development algorithm to ensure the successful implementation of such applications, emphasizing their transformative potential for the energy sector.
(Rose et al., 2017)	Technological innovation mediated by business model innovation: app developers moving into health	This paper reveals how new firms entering the health market with app technologies are disrupting traditional healthcare by introducing innovative business models that emphasize customer engagement, monetization, and a broader focus on well-being and prevention. Unlike incumbents, these firms prioritize customer-centered approaches, empowering individuals to manage their health through personalized experiences and self-tracking. By redefining health as more than just medical care and adopting diverse monetization strategies, these newcomers are reshaping market structures and expanding the scope of health services to include well-being and lifestyle improvement.
(Darnell & Jacobs, 2019)	YADA, YADA, YADA...SUCCESSFUL BUSINESS! USING SEINFELD CLIPS TO TEACH BUSINESS MODEL EVALUATION	This paper finds that comedic video clips from <i>Seinfeld</i> , particularly those showcasing Kramer's quirky business ideas, can be an effective and engaging tool for teaching entrepreneurship concepts such as business models, idea evaluation, and market research. These clips allow students to analyze entrepreneurial opportunities, apply frameworks like the Lean Canvas, and develop key competencies through experiential learning. Despite limitations like the show's age and cultural humor differences, <i>Seinfeld</i> remains versatile and relevant for fostering creativity, critical thinking, and engagement in entrepreneurship courses.
(García-Fernández, Gálvez-Ruiz, et al., 2018)	Exploring fitness center consumer loyalty: differences of non-profit and low-cost business models in Spain	This paper finds that customer loyalty in public and private low-cost fitness centers is driven by perceptions of quality, value, and satisfaction, though the dynamics vary by business model. Private centers benefit most from improving facilities, employees, and perceived value, while public centers see stronger impacts from program quality and satisfaction. Satisfaction positively influences future intentions across both models, but perceived value only predicts future loyalty in public centers. The study underscores the need for tailored strategies to enhance loyalty based on the unique profiles and preferences of each fitness center's clientele.
(Schumacher & Mayer, 2018)	Preparing Managers for Turbulent Contexts: Teaching the Principles of Design Thinking	This paper demonstrates that <b>design thinking, with its principles of user focus, problem framing, visualization, experimentation, and diversity, equips management students to handle turbulent business contexts.</b> It presents a structured teaching approach through a quick "Design Thinking in One Hour" exercise and an in-depth project with a pharmaceutical company, showcasing how iterative processes and human-centered design can address real-world challenges. By complementing analytical tools, design thinking prepares students to

		navigate complexity, foster innovation, and adapt to dynamic environments, making it a critical addition to management education.
<b>(Baumgartner &amp; Mangematin, 2019)</b>	Strategy renewal: breaking the mould with new business models	This paper highlights that business modeling can serve as a strategy-renewal mechanism, challenging traditional thinking and encouraging innovation. It argues that by combining business modeling with existing strategic processes, top managers can adopt new perspectives, think "outside the box," and foster strategic ambidexterity. Key mechanisms for this renewal include cognitive challenges, focusing on processes, questioning ingrained mindsets, and developing cognitive capabilities. The paper concludes that business modeling should complement, not replace, traditional strategy tools, promoting adaptation and value creation in dynamic environments.
<b>(Baena-Arroyo et al., 2020)</b>	Analyzing Consumer Loyalty through Service Experience and Service Convenience: Differences between Instructor Fitness Classes and Virtual Fitness Classes	This paper finds that service experience significantly influences customer satisfaction and future intentions in both instructor-led fitness classes (IFC) and virtual fitness classes (VFC), with a stronger impact in VFC. It also highlights that service convenience positively affects satisfaction and future intentions, but this effect is weaker for VFC customers. The study suggests that fitness centers should focus on enhancing the service experience and service convenience, especially for IFC customers, to boost customer satisfaction, retention, and loyalty. These insights provide valuable guidance for fitness center management to improve their services and customer loyalty.
<b>(Sun JingMeng et al., 2014)</b>	Research on health promotion of pharmaceutical companies: A case analysis of Amway nutriline health run	This paper emphasizes the importance of sports promotion as a marketing strategy for pharmaceutical companies, with a focus on enhancing brand image rather than just driving sales. It uses the "Amway Nutriline Health Run" as a case study, highlighting its success in boosting brand awareness and consumer preference in the Chinese market. The paper also points out that while sports promotion can be highly effective, Chinese companies face challenges in integrating marketing strategies and need to focus on long-term, culturally resonant approaches. The key takeaway is that sports promotion should prioritize brand value to drive future sales and growth.
<b>(Nielsen, 2018)</b>	Relating Successful Business Models to Intellectual Capital and Knowledge Management Practices	This paper highlights that intellectual capital is central to all business models and that there are significant links between business models, knowledge management, and intellectual capital. It argues that intellectual capital, divided into human and structural capital, plays a key role in value creation, with business models serving as the platform for executing strategy. The paper discusses how innovation, management, and reporting are influenced by these relationships and proposes a framework to understand them. It also suggests that future research should explore how business model innovation impacts intellectual capital and knowledge management practices.
<b>(León-Quismondo et al., 2020)</b>	Best Practices for Fitness Center Business Sustainability: A Qualitative Vision	This paper highlights that specific managerial decisions are crucial for the success and long-term sustainability of fitness centers. Key best practices include prioritizing customer service, offering quality group classes, effective marketing through word-of-mouth and social media, maintaining well-equipped and clean facilities, and providing fair pricing based on the business model. It also emphasizes the importance of employee satisfaction, technology adoption, and clear terms and

		conditions, such as flexible opening hours and accessible locations, to drive customer engagement and business stability.
<b>(Dallat et al., 2013)</b>	A lesson in business: cost-effectiveness analysis of a novel financial incentive intervention for increasing physical activity in the workplace	This paper finds that the Physical Activity Loyalty (PAL) card scheme is a potentially cost-effective intervention for increasing physical activity among employees, benefiting both healthcare providers and employers. The scheme, which incentivizes employees to engage in physical activity by offering rewards, was shown to improve physical activity levels and productivity, with modest gains in quality of life. Its sustainable business model, which involves local businesses sponsoring rewards, keeps costs low. However, the study calls for further research to reduce uncertainties and explore additional outcomes, such as healthcare utilization.
<b>(Hunter et al., 2016)</b>	Effectiveness and cost-effectiveness of a physical activity loyalty scheme for behavior change maintenance: a cluster randomized controlled trial	This paper presents a study protocol for evaluating a workplace-based physical activity intervention using a loyalty scheme with financial incentives. The 6-month Physical Activity Loyalty (PAL) scheme rewards participants with retail vouchers for physical activity, and includes tracking, feedback, and behavior change techniques. The study will assess the effectiveness, cost-effectiveness, and sustainability of the intervention, focusing on physical activity levels, health outcomes, and work-related factors. With a large sample of office-based employees and a robust design incorporating behavioral economics and cost analyses, the study aims to provide valuable insights into promoting sustained behavior change in workplace settings.
<b>(García-Fernández, Gálvez-Ruiz, et al., 2018)</b>	The effects of service convenience and perceived quality on perceived value, satisfaction and loyalty in low-cost fitness centers	This paper highlights that in low-cost fitness centers, perceived quality and service convenience directly influence perceived value, which in turn positively affects customer satisfaction and loyalty. The study underscores the importance of managing both the quality of the services and the convenience offered to clients, as these factors significantly impact their perception of value and overall satisfaction. Satisfied clients are more likely to remain loyal, which is critical for the long-term success of fitness centers, even in price-driven business models. The research suggests that fitness centers should prioritize quality management and service convenience to enhance client loyalty.
<b>(Zhang et al., 2012)</b>	A comparison of e-business models from a value chain perspective	This paper identifies 14 key success factors for e-business models, emphasizing the importance of diverse, self-nicheing markets, viral marketing, user-generated content, high growth driven by the "mobbing" effect, and strong value chain propositions. These factors, derived from practical analysis rather than literature reviews, highlight the need for e-businesses to adopt trends like on-demand production, virtual communities, and demand aggregation to address diverse consumer needs. The study contrasts high-value "first-to-market" enterprises benefiting from network effects with less effective B2C models, urging businesses to define defensible niches and focus on long-term differentiation.
<b>(Voelpel et al., 2004)</b>	The wheel of business model reinvention: how to reshape your business model to leapfrog competitors	This paper highlights that sustainable competitive advantage in today's dynamic environment often requires business model reinvention driven by disruptive innovation, rather than incremental change. It introduces a systemic framework and evaluation tool for reinvention, emphasizing the interconnectedness of business model elements and the need for

		continuous adaptation. The study critiques traditional strategies focused on unique industry positions, urging organizations to embrace reinvention to create new customer value and stakeholder benefits. Challenges faced by incumbents, such as resistance to change, are discussed, with the "wheel of business model reinvention" offered as a tool to guide and measure this process.
<b>(Vojtovic et al., 2016)</b>	SUSTAINABLE BUSINESS DEVELOPMENT PROCESS: THE CASE OF THE FOOD AND BEVERAGE INDUSTRY	This paper underscores the importance of a sustainable business development process in the food and beverage industry, driven by health trends, legislative requirements, and robust business support systems. As health-conscious consumers demand better options and governments enforce regulations like health-related taxes, businesses must adapt by focusing on healthier products, transparent labeling, and compliance with strict standards. The authors critique traditional business models for overlooking these factors, proposing an adapted model that integrates health, legislation, and support systems for sustainable growth. Highlighting the functional beverage sector and challenges faced by SMEs, the study emphasizes long-term strategies to ensure competitive advantage and economic impact.
<b>(Colley &amp; Häkkinen, 2018)</b>	Service Design Methods for Human Computer Interaction	This paper demonstrates that service design methods are highly applicable to Human-Computer Interaction (HCI), particularly for designing complex digital services. By adopting a holistic, user-centered, and co-creative approach, service design considers all stakeholders and emphasizes iterative refinement to improve user experience. Key methods like stakeholder maps, consumer journeys, and business model canvases help visualize relationships, user behaviors, and value propositions. Practical applications in domains like healthcare and wellbeing showcase the potential of service design to create user-friendly and efficient digital services, aligning user needs with provider goals.
<b>(Kang, 2013)</b>	Wellness Contents for Disabled People's Rehabilitation	This paper highlights the transformative potential of IT-based converged content in rehabilitation for disabled people, offering more accessible, engaging, and effective services. With the rise in disability awareness and the importance of physical activity for rehabilitation, the convergence of IT with industries like sports and healthcare has enabled innovative approaches such as gamified rehabilitation tools, U-health services, and cyber health management portals. This trend shifts services from medical institutions to community-based models, aligning with cultural changes and empowering individuals as "prosumers" who create and use content. The paper emphasizes the growing role of IT in shaping rehabilitation and driving new opportunities.
<b>(Moore et al., 2022)</b>	Implementation of Exercise Management Services Among Sports Medicine Physicians in the United States	This paper reveals a significant gap between sports medicine physicians' recognition of the importance of exercise and the limited integration of exercise management services into routine care. Barriers such as inadequate payment mechanisms, lack of health plan support, limited decision-making authority, and absence of a sustainable business model hinder adoption. While most physicians are motivated to promote physical activity, these systemic obstacles, along with opportunity costs, prevent effective implementation. The study emphasizes the need for better compensation models, collaborative roles with exercise professionals, and enhanced medical education to bridge this gap and

		advance exercise medicine.
<b>(Lv et al., 2022)</b>	The possibility of sports industry business model innovation based on blockchain technology: Evaluation of the innovation efficiency of listed sports companies	This study empirically demonstrates, through a three-stage Data Envelopment Analysis (DEA) of 50 listed sports companies, that the adoption of blockchain technology or concepts is associated with a statistically significant increase in innovation efficiency. The findings posit blockchain as a viable solution to the limitations of centralized business models, which often inhibit innovation. The paper further substantiates this claim by proposing a logical framework for a decentralized, blockchain-based business model and validating its operational feasibility with a case study of the "vSport" platform.
<b>(Hussain et al., 2025)</b>	Metaverse Marketing: A Business-To-Business Analysis of Brand Strategies and Generation Z Engagement in the Sports Industry	This research empirically demonstrates that the strategic deployment of brand gamification and virtual influencer marketing within metaverse environments significantly enhances brand loyalty and stimulates active customer advocacy within Generation Z cohorts. The study underscores that success is contingent upon crafting experiences characterized by high clarity and interactivity, cautioning that an overemphasis on visual richness alone can be counterproductive, leading to user distraction and diminished loyalty. Consequently, the efficacy of this emerging business model is determined not merely by technological adoption but by the intelligent, balanced, and user-centric design of the experiential interface.
<b>(Li, 2024)</b>	Innovative Management and Economic Analysis of Business Models in Sports Enterprises: Enhancing Competitiveness Through Strategic Practices	This empirical analysis establishes that innovation, particularly through the development of smart stadiums and the implementation of comprehensive digital strategies, transcends mere operational efficiency. It fundamentally catalyzes business model innovation by generating novel, technology-driven value propositions for customers. This transformation initiates a virtuous cycle wherein enhancements in sporting performance and economic outcomes are mutually reinforcing, thereby creating a dynamic platform for sustained growth and further innovation. The study concludes that the capacity for continuous business model innovation is a critical strategic capability for modern sports enterprises seeking competitive advantage.
<b>(Hammerschmidt et al., 2023)</b>	Sport entrepreneurship: the role of innovation and creativity in sport management	This study identifies a significant fragmentation and lack of conceptual unity within the extant literature on sports entrepreneurship. To address this gap, the authors propose a novel, integrated model of sports entrepreneurship that holistically synthesizes its core dimensions—including business model innovation, creativity, and social entrepreneurship—which have previously been examined in isolation. This comprehensive framework provides a strategic tool for elucidating the complex interrelationships within the sports entrepreneurship ecosystem, thereby offering a pathway to transcend the current insular state of research and foster a more cohesive understanding of the field.
<b>(Newsome et al., 2024)</b>	2025 ACSM Worldwide Fitness Trends: Future Directions of the Health and Fitness Industry	The article empirically documents the concurrent emergence of innovative, platform-based business models within the fitness industry, primarily characterized by influencer-led programs and on-demand digital classes. These models are shown to create significant value through unprecedented consumer flexibility and accessibility. Furthermore, a parallel innovation trajectory is identified in marketing and segmentation strategies, with a dominant trend being the development of hyper-specialized programming tailored to specific demographic segments, such as seniors and teens, indicating a strategic pivot towards niche market penetration.
<b>(Ruokonen &amp; Ritala, 2023)</b>	How To Succeed with an AI-first strategy?	This study posits that artificial intelligence (AI) possesses a transformative capacity for traditional industries such as fitness, fundamentally altering core value propositions. This is evidenced by cases like Orangetheory Fitness, which leverages proprietary algorithms to deliver hyper-personalized experiences within a group class setting.

		Such innovation facilitates a strategic pivot in revenue models, shifting from the sale of discrete products/services to the delivery of measurable outcomes—a transition analogous to John Deere's evolution from selling machinery to guaranteeing agricultural yield. The research concludes that capitalizing on this paradigm requires embedding AI at the core of product development and organizational competency, while simultaneously maintaining an unwavering customer-centric focus in the overall business strategy.
(Wang, 2024)	The Impact of Digital Transformation in the Sports Industry	Empirical analysis indicates that contemporary business model innovation in the sports sector is fundamentally centered on enhancing the "fan experience" and leveraging "data." Organizations are increasingly utilizing advanced technologies—including big data analytics, artificial intelligence, and virtual reality—to achieve deep personalization of fan interactions and services. This strategic focus has catalyzed innovations such as the implementation of token-based economies and sophisticated digital loyalty systems. These systems transform fans from passive content consumers into active value co-creators, whereby engagements like streaming content, participating in surveys, or making purchases generate redeemable points, exclusive content, or digital assets. This paradigm fosters a virtuous cycle that simultaneously amplifies fan loyalty and unlocks multiple, sustainable revenue streams for sports organizations.
(Tettamanzi et al., 2023)	The quest for sustainable sports management: evidence from the football industry	Empirical analysis reveals that the COVID-19 pandemic served as a critical catalyst, compelling the sports industry to challenge its traditional, in-person revenue dependency and urgently pursue alternative, more sustainable business models. While the preservation of the physical stadium experience remains a core tenet, the study identifies the integration of physical and digital realms as an operational inevitability. This hybridized approach manifests in strategic innovations such as bundled event tickets, alternative digital sales channels targeting new fan demographics, and flexible reservation policies, all designed to reconfigure revenue generation and enhance customer engagement. Concurrent with a broader industry shift towards a hyper-commercialized, American-style model characterized by an expanded competition calendar, these developments signify a fundamental paradigm shift wherein digitalization functions as the central backbone for constructing an agile, resilient, and sustainable business model.

## Discussion

This systematic review synthesizes evidence on business model innovation within the dynamic context of the sports and fitness industry, compellingly arguing that BMI constitutes a central strategic imperative rather than a peripheral tactic for achieving resilience, growth, and competitive advantage. The findings illuminate a trajectory defined by digital disruption and a fundamental shift in consumer paradigms, necessitating a reconceptualization of value creation.

The discussion can be framed around several key, transferable innovations identified from cross-industry analysis. First, the platformization of fitness, a trend evident in

healthcare apps and e-business, is redefining the industry's structure. The innovation lies in creating multi-sided platforms that connect users, trainers, content creators, and advertisers, thereby transferring the primary source of value from the service itself to the network effects generated by the platform. This model enables immense scalability and unlocks novel, data-driven revenue streams, offering a direct and powerful application for fitness services seeking to expand their digital footprint. Second, the metaverse emerges as a new value domain, with its development in healthcare providing a transferable paradigm for sports. The innovative business model shift involves moving from selling access to a physical event

to selling an immersive, interactive digital experience. This transformation can turn passive viewership into active fan participation through virtual VIP lounges, NFT-based ownership, and other digital interactions, fundamentally altering the fan engagement economy (Hussain et al., 2025; Wang, 2024)

Third, the adoption of AI-first and outcome-based models, inspired by high-tech industries, represents perhaps the most profound innovation. This paradigm shifts from selling a transactional product (a gym session) to selling a verifiable outcome (an achieved health goal) necessitates the deep integration of AI, wearables, and data analytics into the core value proposition. It paves the way for a "sport-as-a-service" model based on performance guarantees and hyper-personalization, moving the industry towards a more accountable and customer-centric future. Fourth, the strategic application of gamification and behavioral economics, as demonstrated by platforms like Foursquare, offers a potent tool for sports BMI. The innovation here involves utilizing game mechanics not merely for marketing but as a fundamental mechanism for value creation and capture. By driving desired behaviors such as consistent exercise or deeper fan engagement, organizations can generate valuable data and foster strong loyalty, though this must be pursued with careful ethical consideration to avoid manipulative practices and protect user autonomy (Chapman et al., 2021).

Furthermore, the review underscores the critical importance of strategic ambidexterity, which is the ability to balance the exploitation of existing, traditional models with the exploration of disruptive new ones. Successful sports organizations must master this duality, efficiently managing core assets like stadiums and broadcast deals while simultaneously experimenting with disruptive innovations such as digital tokens and virtual experiences. This dual capability is no longer optional but essential for navigating the current volatile and competitive landscape.

The ethical dimensions inherent in these innovations demand serious consideration. The relentless pursuit of data-driven personalization and deeply engaging gamified systems raises significant concerns regarding user privacy, data sovereignty, and the potential for exacerbating digital inequities. Future business model innovation must be consciously designed with responsible innovation principles at its core, ensuring that the pursuit of value and growth does not come at the expense of user autonomy or social inclusion.

### Conclusion

This systematic review confirms that Business Model Innovation (BMI) serves as a potent catalyst for transformation, sustainable growth, and organizational resilience within the sports and fitness industry. The analysis demonstrates that the most significant opportunities for advancement lie in the strategic and holistic reconfiguration of how value is created, delivered, and captured, enabling alignment between strategic objectives, technological progress, and shifting consumer expectations. This often involves successfully adapting and drawing insightful inspiration from cross-industry paradigms, moving beyond the isolated adoption of new technologies.

The fitness sector, characterized by rapid change and digital disruption, emerges as a particularly fertile ground for innovative models that prioritize adaptability, personalization, and value co-creation. Digital platforms have become central to this evolution, enabling virtual fitness solutions, AI-driven personalization, and flexible service delivery that are redefining traditional revenue structures. The COVID-19 pandemic served as a critical catalyst, accelerating the adoption of viable hybrid business models that combine digital and physical experiences to provide customer flexibility while maintaining multiple revenue streams.

The overarching conclusion is that the future of the sports business model is inherently hybrid, intelligent, and experiential. The identified

innovations such as platformization, metaverse integration, and ethically-applied gamification provide a coherent blueprint for evolving from transient transactional relationships to ongoing, collaborative customer partnerships, and from standardized offerings to hyper-personalized, measurable outcomes. Furthermore, sustainability and social responsibility have emerged as key differentiators, with leading organizations integrating environmental, community, and economic objectives into their core strategies. This dual focus on innovation and responsibility reflects the industry's growing recognition of its broader societal role and represents both a moral imperative and a competitive advantage.

However, this promising evolution is fraught with complex challenges. The long-term economic sustainability of many digital-first models remains empirically unproven. Digital transformation presents significant hurdles, including intensified competition, concerns about data privacy and digital equity, and the difficulty of customer retention in an on-demand ecosystem. The regulatory frameworks governing data usage, digital assets, and consumer protection are still in their infancy and evolving unevenly, posing a substantial risk of digital exclusion that threatens equitable industry growth.

Therefore, future success is contingent upon a balanced and nuanced approach. Organizations must pursue strategic ambidexterity maintaining core operations while experimenting with new approaches fostering a culture that embraces calculated risk-taking, continuous learning, and customer-centric, data-informed design. Piloting small-scale innovations allows for iterative refinement, while robust analytics can inform continuous improvement.

This review is not without its limitations. The PRISMA-guided methodology, while rigorous, may have excluded relevant non-English publications and industry reports. Furthermore, the current literature is dominated by short-term

case studies, creating a significant gap in understanding the longitudinal sustainability of innovative business models. There is a particular need for research tracking the performance of pandemic-era adaptations over extended timeframes.

Based on these limitations and the identified challenges, several critical pathways for future research emerge:

**Longitudinal Studies:** Empirical investigation into the long-term viability and economic sustainability of digital-first and hybrid business models.

**Inclusive Design and Digital Equity:** Research focused on developing robust frameworks for ethical and inclusive digital business models to mitigate the risk of digital exclusion across diverse demographic groups.

**Interdisciplinary Policy Research:** Exploration of the formative role of policy and regulation, particularly at the intersection of technology policy (data privacy, digital taxation) and sports business models, to foster a healthy innovation ecosystem.

**Behavioral Insights:** Investigation into how behavioral economics principles, habit formation mechanisms, and community-building strategies can enhance customer engagement, loyalty, and business model effectiveness.

For practitioners, the findings emphasize agile experimentation and customer-centric design. For policymakers, the imperative is to support this evolution by investing in digital infrastructure and promoting equitable access. Ultimately, the industry's continued growth depends on collaborative innovation across sectors. By fostering partnerships between researchers, businesses, and policymakers, we can develop business models that are technologically sophisticated, socially responsible, and economically viable, ensuring the industry remains dynamic and impactful in an increasingly complex global landscape.

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