

Sustainable Entrepreneurship in the Football Industry: Designing a Model for Future-Oriented Development

Abstract

This study aimed to test the model of sustainable entrepreneurship in the football industry and to examine the structural relationships among the research constructs in the quantitative phase. The statistical population included managers, entrepreneurs, and stakeholders in the football industry. Data were collected using a standardized questionnaire based on a five-point Likert scale and analyzed through Structural Equation Modeling (SEM) using Smart PLS software. The results indicated that causal, contextual, and intervening conditions have a significant effect on the central phenomenon, and the central phenomenon has a positive and significant impact on strategies. Furthermore, strategies play a determining role in explaining the economic and social consequences of sustainable entrepreneurship in football. The model fit indices were within an acceptable range, indicating a good fit of the structural model. Overall, the findings of the quantitative phase demonstrate that sustainable entrepreneurship in the football industry is the result of a multidimensional interaction of individual, structural, and institutional factors and can contribute to sustainable economic and social development in this field.

Keywords: Sustainable entrepreneurship, football, innovation, grounded theory, economic development

Introduction

In recent decades, entrepreneurship is no longer considered simply as a tool for economic growth, but has become a multifaceted concept that simultaneously encompasses economic, social and environmental dimensions. In this regard, the concept of “sustainable entrepreneurship” has been proposed as one of the new development approaches that emphasizes the creation of economic value while protecting natural resources and ensuring the benefits of future generations (Akkuş & Çalıyurt, 2022). With the spread of global concerns about environmental crises, social inequalities and economic challenges, the issue of sustainability has become one of the most important axes of policymaking, planning and research at the national and international levels (Ghasemi et al., 2024; Yarime et al., 2012). In

such circumstances, sustainable entrepreneurship is recognized as one of the key mechanisms for achieving sustainable development and can play an effective role in various industries, especially the sports industry (Akkuş & Çalıyurt, 2022). The importance of this issue is doubly high in countries such as Iraq, which are facing numerous economic, social and infrastructural challenges, because the sports industry has a high capacity to create job opportunities, social development and improve human capital (Salman & Alkinani, 2023). In addition, international research has shown that sports activities based on sustainability principles can, in addition to strengthening economic growth, also increase social participation, collective solidarity and social cohesion (Jamaludin et al., 2022; Schulenkorf, 2012).

The United Nations Sustainable Development Goals, as part of the 2030 Agenda, are designed to strike a balance between the economic, social, and environmental dimensions of development and consist of 17 goals and 169 targets that focus on challenges such as poverty, inequality, climate change, and environmental protection (Kostakis & Tsagarakis, 2022; Dlouhá & Pospíšilová, 2018; Farhan, 2023; Salvia et al., 2019). Within this framework, organizations and businesses have increasingly moved towards sustainable management and economic models and are trying to play a more effective role in achieving sustainable development by reducing environmental impacts, optimizing resource consumption, and improving productivity (Høgevoid, 2011). Strategies such as recycling raw materials, reducing energy consumption, increasing product durability, and using resources efficiently are considered to be among the most important measures to be considered in the path of sustainable development (Lydenberg & Wood, 2010). Along with these measures, organizations are also required to pay attention to their social responsibilities and include issues such as social justice, human rights, and education in decision-making processes. Therefore, many businesses are trying to simultaneously respond to the economic, social, and environmental needs of stakeholders by utilizing innovation and redesigning business models (Adams et al., 2016; Paterson, 2001; Sharma & Henriques, 2005). Numerous studies have also shown that entrepreneurship, innovation, and sustainable education are among the most important drivers of achieving sustainable development (Cullen & De Angelis, 2021; Lopes et al., 2021; Salvia et al., 2019). In addition to creating economic value, this approach also plays a decisive role in protecting the environment and promoting social welfare (Hariram et al., 2023). In this regard, contemporary entrepreneurs no longer simply pursue profitability, but also pursue social and environmental goals alongside economic goals (Gu & Wang, 2022; Hamdan et al., 2022; Kostakis & Tsagarakis, 2022). Some of them try to create economic and social value

simultaneously and thus contribute to sustainable development (Chell et al., 2008). Research also shows that the effects of entrepreneurship and innovation are not limited to the local level, but can also play a role in global economic growth (Snihur et al., 2017). Since the 1970s, entrepreneurs have made a significant contribution to industrial transformation and economic growth through technological development and innovation (Acs & Audretsch, 2005; Audretsch & Sanders, 2011).

In the field of sports, domestic and foreign studies have widely emphasized the importance of developing sustainable entrepreneurship. Ghasemi et al. (1403) examined the contextual factors of sports entrepreneurship and showed that despite the model having a favorable fit, the level of sports entrepreneurship is still assessed as low (Ghasemi et al., 2024). Also, Pourzarnegar (1403) confirmed the role of components such as creativity, innovation, independence and risk-taking in the development of sports entrepreneurship (Pourzarnegar, 2024). Dodehaki et al. (1402) also reported that entrepreneurial attitude among sports management students is at a higher level than other disciplines and this can be effective in educational and economic development (Dodehaki et al., 2024). In addition, Ashouri et al. (1401) identified entrepreneurial opportunities in sports at three levels: macro, meso, and micro, and emphasized the need to formulate appropriate policies and plans in this area (Ashouri et al., 2023). Also, the results of Niazy and Nazari's (1401) research showed that the entrepreneurial behaviors of sports managers can play a decisive role in organizational success in the face of crises and environmental changes (Niazy & Nazari, 2023).

Internationally, numerous studies have emphasized the importance of technology, green innovation, and digitalization in the development of sustainable entrepreneurship. Smolağ & Chomiak-Orsa (2025) showed that digitalization can be effective in solving social and environmental challenges and facilitate the path to achieving sustainable development goals (Smolağ & Chomiak-Orsa, 2025). Chungyalpa and von Rosing (2025) also emphasized the vital role of the private sector in establishing sustainable business practices (Chungyalpa & von Rosing, 2025). Soomro et al. (2024) also found that factors such as green product, green design, green supply chain, and green innovation have a positive impact on green entrepreneurship and sustainable development (Soomro et al., 2024). In addition, studies by Thida (2024), Watson et al. (2023), and Akkuş & Çalıyurt (2022) have emphasized the need to integrate sustainable development goals into business strategies and provide policy support for sustainable entrepreneurship (Thida, 2024; Watson et al., 2023; Akkuş & Çalıyurt, 2022). Also, Jamaludin et al. (2022) showed that social entrepreneurship in sport can be effective in promoting mental

health and strengthening social networks (Jamaludin et al., 2022). On the other hand, Gu and Wang (2022) stated that sustainable entrepreneurship has a direct impact on regional economic growth through technological development (Gu & Wang, 2022). Also, González-Serrano et al. (2020) emphasized the need for greater attention to innovation and sustainable entrepreneurship in the sports industry (González-Serrano et al., 2020).

Despite the significant potential of the sports industry, this sector in Iraq still faces numerous challenges, such as weak infrastructure, management instability, economic constraints, and environmental issues (Ibrahim et al., 2022). At the same time, the lack of research focused on sustainable entrepreneurship in Iraqi sports indicates a scientific and applied vacuum in this field. After 2003 and the development of investment in various sectors of the Iraqi economy, the need to utilize innovative and sustainable models is felt more than ever (Neamah et al., 2024). Research also indicates that improving innovation capacity and achieving sustainable development requires flexible policymaking, familiarizing managers with new innovation approaches, and supporting sustainable management practices (Kostakis & Tsagarakis, 2022; Lopes et al., 2021; Hizarci-Payne & Kirkulak-Uludag, 2018). From this perspective, designing a model for sustainable entrepreneurship in the Iraqi sports industry can pave the way for job creation, strengthening the local economy, protecting natural resources, and improving the quality of life, while also helping to achieve sustainable development goals (Jamaludin et al., 2022; Shepherd & Patzelt, 2011; Golmohammadi et al., 2024; Farhan, 2023).

Despite the growing number of studies related to sustainable entrepreneurship and the widespread attention to sustainable development goals, there is still no comprehensive and indigenous framework in the football industry - especially in developing countries - to explain the dimensions of sustainable entrepreneurship. Most previous research has focused mainly on the economic or managerial dimensions of sport and has less addressed the simultaneous relationship between innovation, social responsibility, economic development, environmental considerations and long-term sustainability in the football industry. Also, the lack of a structured model to identify the causal, contextual, intervening factors, strategies and consequences of sustainable entrepreneurship has led to many decisions in this area being made in a cross-sectional and unsystematic manner. On the other hand, rapid technological developments, economic changes, increasing social expectations and the need to align with sustainable development goals have made the need to design a forward-looking model to guide the football industry more evident than ever before. Accordingly, the theoretical and practical gap in the research literature explains the necessity of conducting a study entitled "Sustainable

Entrepreneurship in the Football Industry: Designing a Model for Future-Oriented Development"; a study that can provide a basis for sustainable development, create innovative opportunities, and enhance the economic and social capacities of the football industry by providing a scientific and indigenous model.

Materials and methods

The present study is applied-developmental in terms of purpose and descriptive-survey in nature, which was conducted in the quantitative part with a correlation-causal approach. This research aimed to design a sustainable entrepreneurship model in the football industry and attempted to examine the relationships between the main research variables in the form of a structural equation model. Given the novelty of the subject and the necessity of explaining the structural relationships between the components, the partial least squares structural equation modeling approach (PLS-SEM) was used in the quantitative part. This method was considered appropriate for the present study due to its high ability to analyze complex models, predict dependent variables, and analyze second-order structures.

The statistical population of the study consisted of entrepreneurs, managers, and other stakeholders in the football industry. Sampling in the quantitative part was conducted using a convenience method, and a total of 391 analyzable questionnaires were collected. Considering the nature of structural equation modeling and the number of research variables, the selected sample size was assessed as appropriate for statistical analysis. Also, the participation of various stakeholder groups, including managers, entrepreneurs, and football activists, increased the comprehensiveness of the research data. The data collection tool in the quantitative part was a researcher-made questionnaire that was designed based on the findings of the qualitative part of the doctoral thesis. The questionnaire included closed questions with a five-point Likert scale from "strongly disagree" to "strongly agree." The data were collected in two ways: in person and online, and after the initial review, incomplete questionnaires were eliminated and the final data were entered into the analysis process. In order to examine the validity of the questionnaire, content validity, convergent validity, and divergent validity were used. The content validity of the questionnaire was confirmed by asking professors and experts in the fields of sports management and entrepreneurship. Also, to assess the construct validity, confirmatory factor analysis was conducted using Smart PLS3 software. The average variance extracted (AVE) values for all constructs were greater than 0.5, indicating good convergent validity. In addition, the factor loadings of the items were also reported to be greater than 0.7,

confirming the appropriate validity of the indicators. The reliability of the research instrument was also examined using Cronbach's alpha coefficients, composite reliability (CR), and the Dillon-Goldstein Rho index. The results showed that all Cronbach's alpha and composite reliability values were greater than 0.7; therefore, the research instrument had good reliability and appropriate internal consistency. Also, in order to examine the normality of the data, skewness and kurtosis indices were calculated, the results of which confirmed the normality of the data distribution. Finally, the research data were analyzed using SPSS25 and Smart PLS3 software. In the descriptive statistics section, indicators such as mean, standard deviation, frequency, and frequency percentage were used, and in the inferential statistics section, the measurement model and structural model of the research were tested. Also, indicators such as R^2 , Q^2 , and SRMR were used to evaluate the fit of the model, and the relationships between variables were examined through path coefficients and t-statistics

Findings

Demographic findings showed that 66.73 percent of respondents were male and 26.34 percent were female, indicating the relative dominance of men in the study population. In terms of job status, 61.64 percent of the sample were other stakeholders, 23.53 percent were managers, and 14.83 percent were entrepreneurs, indicating the diversity and breadth of the composition of participants in the football industry. In terms of age, the highest frequency was in the group under 30 years old with 28.90 percent, and the lowest was in the group over 50 years old with 20.97 percent, indicating the dominance of young people in the research sample. Also, in terms of education, the highest percentage was in the bachelor's degree with 27.11 percent and the lowest was in the doctorate with 46.9 percent, indicating that the level of education of the respondents was mainly at the university and intermediate to high level.

Table 1. Results of statistical data review

Variable	Mean	Standard Deviation	Skewness	Kurtosis	Result
Causal factors	3/806	0/963	-0/518	-0/331	Normal
Contextual conditions	3/779	0/691	-0/407	-0/359	Normal
Intervening factors	2/116	0/690	0/671	0/012	Normal
Focus category	3/869	0/969	-0/593	0/018	Normal
Strategy	3/891	0/704	-0/727	0/465	Normal
Consequences	3/929	0/689	-0/715	0/246	Normal

Given the above table, and considering that the skewness and kurtosis coefficients of all variables fall within the range of ± 2 , it can be concluded that the data distribution satisfies the assumption of normality. Therefore, parametric tests can be appropriately employed to examine the research hypotheses.

The results related to the validity and reliability of the different components of the research model indicate that the measurement structure possesses an acceptable level of quality. In all constructs, the factor loadings of the indicators exceeded the threshold value of 0.70, demonstrating the strong explanatory power of the items in representing the latent variables. Furthermore, the Average Variance Extracted (AVE) values for all dimensions were reported to be greater than 0.50, confirming satisfactory convergent validity. In addition, composite reliability, Cronbach's alpha, and Dillon–Goldstein's rho coefficients for all constructs were above 0.70, indicating acceptable internal consistency and adequate reliability of the measurement instrument. Overall, the convergence of the indices and the consistency of the results across all components suggest that the research instrument enjoys sufficient validity and reliability, thereby providing strong support for its application in structural model analysis and hypothesis testing with a high degree of confidence.

Table 2. Results of Validity and Reliability Analyses of the Final Research Model

Component	Number of Items	AVE	CR	Rho	Cronbach's Alpha
Causal Conditions	۲۰	۰/۰۰۷	۰/۹۴۸	۰/۹۴۳	۰/۹۴۲
Contextual Conditions	۲۰	۰/۰۰۳	۰/۹۴۰	۰/۹۳۹	۰/۹۲۸
Intervening Factors	۲۰	۰/۰۱۲	۰/۹۰۱	۰/۹۴۷	۰/۹۴۶
Core Category	۹	۰/۰۲۶	۰/۸۹۹	۰/۸۷۷	۰/۸۷۳
Strategies	۲۰	۰/۰۱۸	۰/۹۰۰	۰/۹۰۲	۰/۹۰۱
Consequences	۲۰	۰/۰۲۱	۰/۹۰۱	۰/۹۴۷	۰/۹۴۶

The evaluation of the fit indices for the final research model also indicates a high level of model validity and adequacy. Accordingly, given the confirmation of the proposed model, the results of the path analysis are presented within the framework of the research model.

Table 3. Path Coefficients and t-Statistics of the Hypotheses Related to the Research Model Paths

Relationship	Path Coefficient	t-Statistic	Sig	Result
Causal Conditions → Core Category	0.258	3.797	0.001	Confirmed

Contextual Conditions → Core Category	0.126	2.220	0.034	Confirmed
Intervening Factors → Core Category	-0.552	9.181	0.001	Confirmed
Contextual Conditions → Strategies	0.124	2.091	0.037	Confirmed
Intervening Factors → Strategies	-0.582	4.095	0.001	Confirmed
Core Category → Strategies	0.250	8.779	0.001	Confirmed
Strategies → Consequences	0.843	46.752	0.001	Confirmed

The results of the structural model showed that all relationships between the research constructs were statistically significant and confirmed. Causal conditions and contextual conditions have a positive and significant effect on the central category, while intervening factors show a negative and inhibitory effect on it. Also, contextual conditions have a positive effect and intervening factors have a negative effect on strategies, while the central category plays a positive and significant role in the formation of strategies. Finally, strategies have a very strong and direct effect on the outcomes, which indicates the key importance of this section in realizing the results of the sustainable entrepreneurship model.

Table 4. Values of fit indices for research model variables

Variable	Q2	R2	SRMR
Axis Category	./٣٩٢	./٨٤٢	./٠٨٥
Strategy	./٤١١	./٨٥٣	
Outcome	./٣٢٥	./٧١١	

Based on the results of the model fit indices, it can be concluded that the proposed model demonstrates satisfactory explanatory and predictive quality. The R² values for the constructs of Core Category (0.842), Strategy (0.853), and Consequence (0.711) indicate a high level of explanatory power and reveal the substantial influence of the independent variables on the dependent constructs. Furthermore, the Q² values for all variables are above zero and at an acceptable level (0.392, 0.411, and 0.325, respectively), indicating the adequate predictive relevance of the model. In addition, the SRMR value of 0.085 falls within the acceptable threshold, suggesting that the overall fit of the structural model is satisfactory and acceptable. Overall, the fit indices confirm that the research model possesses appropriate structural validity and demonstrates a strong capability to explain and predict the relationships among the constructs.

Figure 2. Final Research Model in Terms of t-Values (Significance Values)

Discussion

In this section of the study, the results of the structural model analysis aimed at explaining the relationships between different dimensions of sustainable entrepreneurship in the football industry were presented and discussed. Based on the findings, significant relationships between causal conditions, context, intervening factors, central category, strategies, and outcomes were confirmed, which indicates the systematic and multilevel nature of the phenomenon under study. These results were analyzed in light of theoretical literature and previous research and showed that the realization of sustainable entrepreneurship in football requires synergy between structural, human, and institutional factors. Subsequently, the theoretical and practical implications of each of the relationships were explained, and the necessity of paying attention to integrated policymaking, developing supportive infrastructure, and strengthening innovative capacities at the macro and organizational levels was emphasized in order to provide the basis for the formation and sustainable expansion of entrepreneurship in the football industry.

The results of the first path showed that the relationship between causal conditions and the central category is positive and significant ($\beta=0.258$, $t=3.797$, $p=0.001$), indicating that fundamental factors such as government support policies, the quality of human capital, and the existence of institutional infrastructure play a decisive role in the formation of sustainable entrepreneurship in the football industry. This finding shows from a theoretical perspective that the formation of the phenomenon of sustainable entrepreneurship is not simply the result of individual or organizational activities, but is strongly dependent on structural contexts and macro decisions. In the research literature, Ghasemi et al. (2024) and Akkuş & Çalıyurt (2022) have emphasized that governments pave the way for the development of sustainable entrepreneurship through targeted policymaking and financial and legal support. Accordingly, it can be concluded that without strengthening policy and institutional infrastructure, the possibility of forming a sustainable ecosystem in the football industry will be limited. From a practical perspective, it is necessary to design support systems at the national and sports levels in a way that both increases investment stability and facilitates the entry of new entrepreneurs.

A positive and significant relationship was also observed in the relationship between contextual conditions and the central category ($\beta=0.126$, $t=2.220$, $p=0.034$), indicating that environmental factors such as the economic situation, legal frameworks, and the level of development of technological infrastructure play a complementary but important role in strengthening sustainable entrepreneurship. Although the intensity of this effect is less than that of causal conditions, its importance in creating an executive and operational context is significant. The findings of González-Serrano et al. (2020) also show that the development of economic and technological infrastructure in sports provides the basis for the formation of innovative business models. As a result, it can be argued that contextual conditions act as a facilitating environment and increase the quality of the impact of the main factors. From a policy perspective, improving the sports business environment, reducing administrative barriers, and promoting legal transparency can help strengthen this dimension.

In the path related to the intervening factors and the central category, a negative and significant relationship was observed ($\beta=-0.552$, $t=9.181$, $p=0.001$), which indicates a strong inhibitory effect of these factors on the development of sustainable entrepreneurship in football. This result shows that factors such as economic instability, limited financial resources, weak institutional support, and sudden changes in regulations can seriously disrupt the process of formation and consolidation of sustainable entrepreneurship. In the theoretical literature, Lopes et al. (2021) and Dodehaki et al. (2024) have also pointed out that economic and institutional instability is one of the most important obstacles to the development of innovation in sports industries. Therefore, it can be concluded that even in the presence of appropriate structural and human capacities, the presence of severe environmental barriers can weaken the entire entrepreneurial system. In this regard, establishing policy stability, strengthening support institutions, and reducing economic uncertainties are considered essential requirements for the development of this field. A positive and significant effect was also obtained in the relationship between contextual conditions and strategy ($\beta=0.124$, $t=2.091$, $p=0.037$), which indicates that the economic and legal environment affects the way in which organizational strategies are formulated and selected in the football industry. This finding indicates that sports organizations and clubs do not make decisions in a vacuum, but rather their strategies are largely shaped by external conditions. Watson et al. (2023)

have also emphasized that legal and institutional frameworks can guide the path of strategic decision-making in sports organizations. Therefore, any improvement in macro policies can lead to improving the quality of strategic decisions. From a practical perspective, creating a stable and predictable legal environment is a basic condition for developing innovative strategies in football clubs.

In contrast, the relationship between intervening factors and strategy was also negative and significant ($\beta=-0.582$, $t=4.095$, $p=0.001$), indicating that structural and economic barriers reduce the ability of organizations to formulate and implement development strategies. This result indicates that even in the presence of internal capacities, environmental pressures can prevent the formation of sustainable strategic plans. The findings of Lopes et al. (2021) also confirm that economic and institutional instability disrupts strategic decision-making in sports industries. Therefore, reducing implementation barriers and increasing institutional support play an important role in improving the quality of strategic planning. Regarding the relationship between the central category and strategy, a positive and significant effect was observed ($\beta=0.250$, $t=8.779$, $p=0.001$), indicating that sustainable entrepreneurship, as the central core of the model, plays an important role in shaping strategic directions. This finding indicates that as the level of development of sustainable entrepreneurship increases, organizations will be more successful in formulating innovative and sustainable strategies. In this regard, Gu & Wang (2022) state that sustainable entrepreneurship is the driving force behind the design of new business models. Therefore, developing an innovation culture and strengthening entrepreneurial capacities can help improve the quality of organizational strategies. Finally, the relationship between strategy and outcomes showed the strongest model effect ($\beta=0.843$, $t=46.752$, $p=0.001$), which indicates the determining role of strategies in achieving economic and social results. This finding indicates that the quality of outcomes from sustainable entrepreneurship is directly dependent on the quality of the strategies adopted. Shepherd & Patzelt (2011) and Jamaludin et al. (2022) have also emphasized that sustainable entrepreneurship is successful when it can simultaneously create economic, social, and environmental value. Accordingly, it can be concluded that focusing on designing and implementing integrated and sustainable strategies is the main condition for achieving desired results in the football industry.

Conclusion

The overall conclusion of the present study shows that sustainable entrepreneurship in the football industry is a complex, multi-level phenomenon that depends on the simultaneous interaction of structural, institutional, human and environmental factors. The findings of the structural model indicate that causal and contextual conditions play a facilitating role in the formation of sustainable entrepreneurship, while interfering factors can significantly weaken this process. Also, the pivotal category, as the central core of the model, plays an important role in guiding strategies, and strategies also have the greatest impact on economic and social outcomes. These results show that the development of sustainable entrepreneurship in football is not possible only through cross-sectional measures, but also requires the design of a coherent ecosystem that includes smart policymaking, strengthening human capital, developing economic and technological infrastructure, and creating institutional stability. In summary, it can be concluded that achieving sustainability in football entrepreneurship will be possible when synergy is established between the government, clubs, and the private sector and a long-term, integrated, and innovative approach is adopted at the macro level.

Competing interests

The authors report no conflicts of interest in this work.

Funding

This work was supported only by the authors.

Acknowledgments

We deeply appreciate the contributions of all participants.

Declaration

Artificial intelligence was used only for language polishing and editorial support during manuscript preparation. No AI tool was used for data collection, statistical analysis, or generation of the study results. The authors reviewed, verified, and take full responsibility for the final content of the manuscript.

References

Acs, Z. J., & Audretsch, D. B. (2005). Entrepreneurship, innovation and technological change. *Foundations and Trends® in Entrepreneurship*, 1(4), 149-195. <https://doi.org/10.1561/03000000004>

Adams, R., Jeanrenaud, S., Bessant, J., Denyer, D., & Overy, P. (2016). Sustainability- oriented innovation: A systematic review. *International Journal of Management Reviews*, 18(2), 180-205. <https://doi.org/10.1111/ijmr.12068>

Akkuş, Y., & Çalıyurt, K. (2022). The role of sustainable entrepreneurship in un sustainable development goals: The case of ted talks. *Sustainability*, 14(13), 8035. <https://doi.org/10.3390/su14138035>

Ashouri, T., dosti, m., Razavi, S. M. H., & Hosseini, A. (2023). Identifying Development Strategies for Sports Entrepreneurship Opportunities at Macro, Middle and Micro Levels. *Management and Entrepreneurship in Sport*, 2(1), -. <https://doi.org/10.48301/jmes.2023.408930.1026>

Audretsch, D. B., & Sanders, M. (2011). Technological innovation, entrepreneurship and development. *Entrepreneurship, innovation, and economic development*, 35-65.

Chell, E., Wicklander, D. E., Sturman, S. G., & Hoover, L. W. (2008). *The entrepreneurial personality: A social construction*. Routledge.

Chungyalpa, W., & von Rosing, M. (2025). Understanding business sustainability: The what, why, and how of sustainable business practices. In *The Sustainability Handbook, Volume 1* (pp. 579-600). Elsevier. <https://doi.org/10.1016/B978-0-323-90110-9.00038-6>

Cullen, U. A., & De Angelis, R. (2021). Circular entrepreneurship: A business model perspective. *Resources, conservation and recycling*, 168, 105300. <https://doi.org/10.1016/j.resconrec.2020.105300>

Dlouhá, J., & Pospíšilová, M. (2018). Education for Sustainable Development Goals in public debate: The importance of participatory research in reflecting and supporting the consultation process in developing a vision for Czech education. *Journal of cleaner production*, 172, 4314-4327. <https://doi.org/10.1016/j.jclepro.2017.06.145>

Dodehaki, M., Dehghan Ghahfarokhi, A., & Mahmoudi, A. (2024). Measuring the entrepreneurial attitude of sports science graduate students. *Management and Entrepreneurship in Sport*, 2(2), -. <https://doi.org/10.48301/jmes.2024.442714.1051>

Farhan, A. A. (2023). Challenges to Sustainable Development in Iraq: Human Security Issues. *Tikrit Journal For Political Science*, 2(32), 3-22. <https://doi.org/10.25130/tjfps.v2i32.188>

Ghasemi, M., Saat chian, V., Hemmatyar, Z., & Nemati, S. (2024). Identifying and determining the priorities of contextual factors in sports entrepreneurship. *Management and Entrepreneurship in Sport*, 3(1), -. <https://doi.org/10.48301/jmes.2024.447218.1055>

Golmohammadi, H., Pashaie, S., & Zolfi, H. (2024). Investigating the Obstacles Faced by Physical Education Students in Utilizing Advertising to Propel the Growth of Emerging Sports Startups. *Journal of New Studies in Sport Management*, -. <https://doi.org/10.22103/jnssm.2024.23457.1289>

González-Serrano, M. H., Añó Sanz, V., & González-García, R. J. (2020). Sustainable sport entrepreneurship and innovation: A bibliometric analysis of this emerging field of research. *Sustainability*, 12(12), 5209. <https://doi.org/10.3390/su12125209>

Gu, W., & Wang, J. (2022). Research on index construction of sustainable entrepreneurship and its impact on economic growth. *Journal of Business Research*, 142, 266-276. <https://doi.org/10.1016/j.jbusres.2021.12.060>

Hamdan, A., Ghura, H., Alareeni, B., & Hamdan, R. K. (2022). Entrepreneurship growth in emerging economies: New insights and approaches. In (Vol. 12, pp. 1-12): Taylor & Francis.

Hariram, N., Mekha, K., Suganthan, V., & Sudhakar, K. (2023). Sustainalism: An integrated socio-economic-environmental model to address sustainable development and sustainability. *Sustainability*, 15(13), 10682. <https://doi.org/10.3390/su151310682>

Hizarci-Payne, A. K., & Kirkulak-Uludag, B. (2018). Sustainable business practices of Turkish companies listed on the Borsa Istanbul sustainability index. *Sustainable Business Models: Principles, Promise, and Practice*, 329-344. https://doi.org/10.1007/978-3-319-73503-0_15

Høgevoid, N. M. (2011). A corporate effort towards a sustainable business model: a case study from the Norwegian furniture industry. *European Business Review*, 23(4), 392-400. <https://doi.org/10.1108/095553411111145771>

Ibrahim, A., Izadi, B., Fegheh Majidi, a., & Norouzi Seyed hossini, R. (2022). Sports challenges in the political system of the Iraqi Kurdistan region. *Sport Management and Development*, 11(1), 65-84. <https://doi.org/10.22124/jsmd.2020.16862.2345>

Jamaludin, N. A., Zaki, H., & Fernandez, D. (2022). The Approach of Sport-Based Social Entrepreneurship Contributing to Social Sustainability: A Conceptual Framework. *Int. J. Acad. Res. Bus. Soc. Sci*, 12(9), 538-549. <https://doi.org/10.6007/IJARBSS/v12-i9/14505>

Kostakis, I., & Tsagarakis, K. P. (2022). The role of entrepreneurship, innovation and socioeconomic development on circularity rate: Empirical evidence from selected European countries. *Journal of cleaner production*, 348, 131267. <https://doi.org/10.1016/j.jclepro.2022.131267>

Lopes, J., Oliveira, M., Silveira, P., Farinha, L., & Oliveira, J. (2021). Business dynamism and innovation capacity, an entrepreneurship worldwide perspective. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(1), 94. <https://doi.org/10.3390/joitmc7010094>

Lydenberg, S., & Wood, D. (2010). How to read a corporate social responsibility report: A user's guide. Boston College Centre for Corporate Citizenship.

Neamah, R. S., Mohammadifar, Y., Naderi, N., & Rezaee, B. (2024). Interactive Marketing Measurement According To Sustainable Competitive Advantage Goals: A Scale Development. *Journal of Economics and Administrative Sciences*, 30(143), 200= 219-200= 219. <https://doi.org/10.33095/3q7pcq48>

Niazy, P., & Nazari, R. (2023). Presenting a model of entrepreneurial behavior of managers of Iranian sports organizations. *Management and Entrepreneurship in Sport*, 1(1), 22-34. <https://doi.org/10.48301/jmes.2023.171872>

Paterson, M. (2001). Risky business: Insurance companies in global warming politics. *Global Environmental Politics*, 1(4), 18-42. <https://doi.org/10.1162/152638001317146354>

Pourzarnegar, J. (2024). Analyzing factors affecting entrepreneurship in sports of Guilan province. *Management and Entrepreneurship in Sport*, 3(1), -. <https://doi.org/10.48301/jmes.2024.462718.1063>

Salman, M. D., & Alkinani, A. S. (2023). Preserving the past and building the future: a sustainable urban plan for Mosul, Iraq. *ISVS e-journal*, 10(6), 332-350.

Salvia, A. L., Leal Filho, W., Brandli, L. L., & Griebeler, J. S. (2019). Assessing research trends related to Sustainable Development Goals: Local and global issues. *Journal of cleaner production*, 208, 841-849. <https://doi.org/10.1016/j.jclepro.2018.09.242>

Schulenkorf, N. (2012). Sustainable community development through sport and events: A conceptual framework for sport-for-development projects. *Sport management review*, 15(1), 1-12. <https://doi.org/10.1016/j.smr.2011.06.001>

Sharma, S., & Henriques, I. (2005). Stakeholder influences on sustainability practices in the Canadian forest products industry. *Strategic management journal*, 26(2), 159-180. <https://doi.org/10.1002/smj.439>

Shepherd, D. A., & Patzelt, H. (2011). The new field of sustainable entrepreneurship: Studying entrepreneurial action linking “what is to be sustained” with “what is to be developed”. *Entrepreneurship theory and practice*, 35(1), 137-163. <https://doi.org/10.1111/j.1540-6520.2010.00426.x>

Smolağ, K., & Chomiak-Orsa, I. (2025). Future Prospects and Trends in Digital Entrepreneurship Based on Sustainable Development. *Digital Sustainability*, 93-110. <https://doi.org/10.1201/9781003484226-7>

Snihur, Y., Reiche, B. S., & Quintane, E. (2017). Sustaining actor engagement during the opportunity development process. *Strategic Entrepreneurship Journal*, 11(1), 1-17. <https://doi.org/10.1002/sej.1233>

Soomro, B. A., Moawad, N. F., Saraih, U. N., Abedelwahed, N. A. A., & Shah, N. (2024). Going green with the green market and green innovation: building the connection between green

entrepreneurship and sustainable development. *Kybernetes*, 53(4), 1484-1504.
<https://doi.org/10.1108/K-09-2022-1353>

Thida, S. M. (2024). Integration of sustainable development goals in business strategies Vilniaus universitetas.].

Watson, R., Nielsen, K. R., Wilson, H. N., Macdonald, E. K., Mera, C., & Reisch, L. (2023). Policy for sustainable entrepreneurship: A crowdsourced framework. *Journal of cleaner production*, 383, 135234. <https://doi.org/10.1016/j.jclepro.2022.135234>

Yarime, M., Trencher, G., Mino, T., Scholz, R. W., Olsson, L., Ness, B., Frantzeskaki, N., & Rotmans, J. (2012). Establishing sustainability science in higher education institutions: towards an integration of academic development, institutionalization, and stakeholder collaborations. *Sustainability Science*, 7, 101-113. <https://doi.org/10.1007/s11625-012-0157-5>