

Citation: Sabah Mutashar, A., Askarian, F., & Dehghan Ghahfarokhi, A. (2027). Designing a Model of the Barriers to the Implementation of Digital Marketing in the Development of Entrepreneurship in the Iraqi Football Industry. *Digital Transformation and Administration Innovation*, 5(3), 1-12.

Received date: 2026-07-14 Revised date: 2026-10-03 Accepted date: 2026-10-10 Initial Published date: 2026-10-14 Final Published date: 2027-05-01



Designing a Model of the Barriers to the Implementation of Digital Marketing in the Development of Entrepreneurship in the Iraqi Football Industry

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Abstract

This study aimed to identify, classify, and develop a comprehensive model of the barriers to digital marketing implementation in entrepreneurship development within the Iraqi football industry. An exploratory sequential mixed-methods design was employed. Qualitative data were collected through semi-structured interviews with 17 experts and analyzed using thematic analysis. Based on the qualitative findings, a validated questionnaire was administered to 387 managers, marketing specialists, digital media practitioners, and sport management experts. Structural Equation Modeling (SEM) was used to validate the proposed model. The qualitative phase identified seven major categories of barriers, including infrastructural, technology and data; managerial and organizational; institutional, political and economic; cultural and social; commercial, content and fan engagement; human capital and knowledge ecosystem; and digital trust and cybersecurity barriers. The quantitative results demonstrated that all identified dimensions had significant negative effects on entrepreneurship development in the Iraqi football industry. Commercial, content and fan engagement barriers ($\beta = -0.41$), infrastructural, technology and data barriers ($\beta = -0.36$), and managerial and organizational barriers ($\beta = -0.31$) showed the strongest negative impacts. Furthermore, model fit indices confirmed the satisfactory fit of the proposed structural model. The study contributes to the literature by developing and empirically validating one of the first context-specific models explaining the barriers to digital marketing implementation in entrepreneurship development within the Iraqi football industry. The findings highlight the need for integrated investments in digital infrastructure, managerial capabilities, human capital, and regulatory support to accelerate digital transformation and entrepreneurship development in Iraqi football.

Keywords: Digital Marketing, Entrepreneurship, Football Industry, Iraqi Football, Digital Transformation.

1. Introduction

The football industry has evolved into one of the most influential sectors of the global sports economy, extending far beyond athletic competition to become a major driver of economic growth, commercial innovation, and entrepreneurship (Buck & Ifland, 2023). Professional football clubs are increasingly recognized as multifaceted business organizations that create value through media rights, sponsorships, merchandising, fan engagement, and digital business models rather than relying solely on sporting performance (Manoli & Kenyon, 2018). Consequently, sustainable competitiveness in modern football increasingly



depends on the ability of clubs to integrate strategic marketing, innovation, and digital transformation into their organizational capabilities (Kotler et al., 2016).

One of the most significant transformations affecting the contemporary football industry is the rapid development of digital technologies and their integration into marketing activities. The widespread use of social media platforms, mobile applications, artificial intelligence, customer relationship management systems, big data analytics, and digital commerce has fundamentally changed the way football organizations communicate with supporters and commercial partners (Mastromartino & Zhang, 2023). Unlike traditional marketing, digital marketing enables interactive, personalized, and real-time communication, allowing clubs to establish long-term relationships with fans while simultaneously strengthening brand equity, increasing commercial revenues, and expanding global market reach (Rangaswamy et al., 2020). Consequently, digital marketing has evolved beyond a promotional tool to become a strategic organizational capability that strengthens competitiveness, supports sustainable business development, and enables long-term value creation within professional football organizations (Barve, 2023).

Beyond its marketing function, digital marketing has emerged as a critical enabler of entrepreneurship within the sports industry. The continuous expansion of digital platforms has created new opportunities for innovative business models, including digital memberships, online merchandising, streaming services, esports, fan engagement platforms, and data-driven commercial services (Read & Smith, 2023). Through digital technologies, football organizations can better understand consumer behavior, personalize fan experiences, diversify revenue sources, and create innovative products and services that strengthen entrepreneurial capacity (Gasparetto & Safronov, 2023). Recent studies have emphasized that digital transformation not only improves organizational performance but also stimulates innovation, facilitates market expansion, and enhances value creation by enabling organizations to respond more effectively to changing customer expectations (Hammerschmidt et al., 2024; Jo & Shin, 2024; Jovanović et al., 2025). Consequently, digital marketing is increasingly recognized as one of the principal mechanisms through which sports organizations achieve sustainable entrepreneurial development.

Despite these considerable opportunities, the implementation of digital marketing remains a complex process that is influenced by numerous organizational and environmental factors. Existing research indicates that many sports organizations continue to encounter technological, managerial, financial, institutional, cultural, and human-resource-related barriers that restrict their ability to implement digital marketing strategies effectively (Azadi et al., 2025). Limited digital infrastructure, insufficient investment in technological innovation, weak strategic leadership, shortage of skilled professionals, organizational resistance to change, and inadequate legal and regulatory frameworks frequently reduce the effectiveness of digital transformation initiatives (Ahmed & Jebar, 2021; Baaiwi et al., 2024; Kim & Park, 2023). These barriers are often interconnected, creating a challenging environment in which the potential benefits of digital marketing cannot be fully realized. Consequently, understanding these multidimensional barriers has become an important research priority for both scholars and practitioners seeking to promote entrepreneurship within sports organizations.

These challenges are particularly evident in developing countries, where structural and institutional constraints often hinder digital transformation (Mannai, 2025). Iraq provides an important example of such a context. Although football is the country's most popular sport and enjoys substantial social influence, the Iraqi football industry has not yet fully utilized digital technologies to support sustainable business development and entrepreneurial growth (Obaid, 2022). While the increasing availability of internet services and social media platforms has created new opportunities for digital engagement, football clubs and related organizations continue to experience limited technological readiness, weak digital infrastructure, insufficient investment, inadequate strategic planning, and a shortage of specialized expertise in digital marketing (Javani et al., 2024; Khader & Jassim, 2025; Obaid, 2026). As a result, many digital marketing activities remain fragmented, short-term, and operational rather than strategic, preventing organizations from fully exploiting emerging commercial opportunities.

In addition to organizational limitations, broader institutional and economic conditions further complicate digital transformation within Iraqi football. Weak regulatory frameworks for electronic commerce, financial instability, banking restrictions, cybersecurity concerns, and limited cooperation between educational institutions and sports organizations



collectively constrain the development of a dynamic digital entrepreneurship ecosystem (Al Barwari et al., 2025; Moradi & Fahem, 2024). These conditions not only reduce organizational readiness for digital innovation but also discourage private-sector investment and limit the commercialization of football-related products and services. Consequently, despite possessing considerable human and social capital, the Iraqi football industry continues to face substantial obstacles to realizing the entrepreneurial potential offered by digital marketing technologies.

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Although the importance of digital marketing in sport has received increasing scholarly attention, previous research has primarily concentrated on its benefits, applications, and organizational outcomes, including fan engagement, brand development, customer satisfaction, financial performance, and business growth (Al-Khateeb, 2025; Mohsin, 2026). Comparatively fewer studies have examined the multidimensional barriers that hinder the effective implementation of digital marketing, particularly from the perspective of entrepreneurship development. Existing studies have generally investigated technological, managerial, institutional, or commercial challenges separately, with limited attention to the interaction among these dimensions within sports organizations (Bakhshi & Nasrollahi, 2022; Lewis, 2019; Subhi et al., 2026). Furthermore, the majority of conceptual and empirical models have been developed in relatively mature economic environments, offering limited insight into the institutional, technological, managerial, and socio-cultural conditions of emerging sport markets (Millington et al., 2022; Mohammadi et al., 2025). Consequently, there remains a need for a context-specific framework capable of explaining how multiple categories of barriers collectively influence digital marketing implementation and entrepreneurship development within the Iraqi football industry.

Accordingly, this study aims to identify, classify, and develop a comprehensive model of the multidimensional barriers to digital marketing implementation in entrepreneurship development within the Iraqi football industry. Using an exploratory sequential mixed-methods design, the study first identifies the major barriers through qualitative thematic analysis and subsequently validates their structural relationships using Structural Equation Modeling (SEM). By integrating qualitative and quantitative evidence, this research develops and empirically validates a context-specific conceptual framework that advances current understanding of digital transformation and sport entrepreneurship in emerging economies while providing practical guidance for football clubs, policymakers, and other stakeholders seeking to strengthen entrepreneurship through digital marketing.

2. Methods and Materials

The present study was conducted using an exploratory sequential mixed-method design (qualitative–quantitative). In the first phase, thematic analysis was employed to identify the barriers to the implementation of digital marketing in the development of entrepreneurship within the Iraqi football industry. In the second phase, Structural Equation Modeling (SEM) was utilized to test the final research model and determine the effect size and prioritization of the identified barriers. The application of a mixed-method approach enabled the researcher to initially explore and identify the dimensions and components of the phenomenon under investigation and subsequently examine the structural relationships among the variables quantitatively.

In the qualitative phase, the target population consisted of sport management academics, digital marketing specialists, managers of Iraqi football clubs, sports media experts, and professionals involved in digital sports businesses. Participants were selected using purposive sampling combined with the snowball sampling technique, and the interview process continued until theoretical saturation was achieved. Ultimately, 17 participants contributed to the qualitative phase of the study.

In the quantitative phase, the statistical population included university faculty members, postgraduate students in sport management, football club managers, sport marketing experts, and professionals active in digital sports media in Iraq. Considering the large size of the population, the sample size was estimated at 384 participants based on the Morgan Table. However, a total of 387 valid questionnaires were ultimately collected and entered into the statistical analysis process. Convenience sampling was employed in the quantitative phase, and the questionnaires were distributed both online and in person.

Data collection in the qualitative phase was conducted through semi-structured interviews. The interview questions were designed based on the theoretical foundations of the study and previous literature. In the quantitative phase, a researcher-developed questionnaire was designed according to the findings obtained from the qualitative phase. The questionnaire



consisted of 33 items across eight major dimensions and was measured using a five-point Likert scale ranging from “strongly disagree” to “strongly agree.”

The face and content validity of the research instrument were evaluated and confirmed by sport management scholars and digital marketing experts. In addition, Cronbach’s alpha coefficient was employed to assess the reliability of the questionnaire. The results are presented in Table 1.

Table 1. Cronbach’s Alpha Coefficients for the Research Variables

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Variables	Number of Items	Item Reliability	Overall Reliability
Infrastructure, Technology, and Data Barriers	4	0.81	0.92
Managerial and Organizational Barriers	5	0.84	
Institutional, Political, and Economic Barriers	3	0.78	
Cultural and Social Barriers	4	0.82	
Commercial, Content, and Fan Engagement Barriers	5	0.86	
Human Capital and Knowledge Ecosystem Barriers	4	0.80	
Digital Trust and Cybersecurity Barriers	3	0.79	
Entrepreneurship Development in the Football Industry	5	0.88	

As shown in Table 1, the overall Cronbach’s alpha coefficient for the questionnaire was 0.92, indicating a high level of reliability for the research instrument. Furthermore, the reliability coefficients for all variables exceeded the acceptable threshold of 0.70, confirming the internal consistency and reliability of the questionnaire.

To evaluate construct validity, Exploratory Factor Analysis (EFA) was conducted. The results of the Kaiser–Meyer–Olkin (KMO) measure and Bartlett’s Test of Sphericity indicated that the data were suitable for factor analysis. In addition, all questionnaire items demonstrated factor loadings above 0.50, and therefore no items were removed. The results of the exploratory factor analysis are presented in Table 2.

Table 2. Exploratory Factor Analysis, KMO, and Bartlett’s Test Results for the Research Variables

Variables / Items	Factor Loading	KMO	Bartlett’s Test	Sig.
Infrastructure, Technology, and Data Barriers				
Limited access to stable high-speed internet	0.74	0.77	214.6	0.001
Lack of integrated data management and CRM systems	0.82			
Weak cloud storage and data processing infrastructure	0.79			
Limited access to modern digital technologies	0.71			
Managerial and Organizational Barriers				
Managerial instability and frequent leadership changes	0.81	0.82	943.7	0.001
Organizational resistance to digital innovation	0.84			
Weak data-driven culture and managerial transparency	0.76			
Traditional and hierarchical organizational structures	0.72			
Dependence on intermediaries and non-specialized companies	0.69	0.74	386.5	0.001
Institutional, Political, and Economic Barriers				
Weak e-commerce and digital advertising regulations	0.73			
Banking sanctions and currency transfer restrictions	0.86			
Inflation and economic instability	0.79	0.76	752.4	0.001
Cultural and Social Barriers				
Generational gaps in digital technology acceptance	0.68			
Cultural limitations in modern content production	0.77			
Weak brand identity and storytelling practices	0.83	0.84	124.9	0.001
Low trust in online purchasing and payment systems	0.75			
Commercial, Content, and Fan Engagement Barriers				
Dependence on traditional revenue models	0.72			
Weak diversification of digital revenue streams	0.85	0.80	118.6	0.001
Intense competition with foreign leagues and clubs	0.74			
Lack of accurate understanding of fan behavior and preferences	0.81			
Poor quality of multimedia content production	0.78			
Human Capital and Knowledge Ecosystem Barriers				
Shortage of digital sport marketing specialists	0.87			
Migration of skilled professionals and digital talents	0.79			



Low digital literacy among sport managers	0.83			
Weak collaboration between clubs, universities, and startups	0.71			
Digital Trust and Cybersecurity Barriers				
Weak cybersecurity standards	0.82	0.72	947.3	0.001
Concerns regarding fan data leakage	0.78			
Lack of clear data protection frameworks	0.74			
Entrepreneurship Development in the Football Industry (Dependent Variable)				
Increased sport business opportunities	0.86			
Growth of clubs' digital revenue generation	0.83			
Development of innovation and modern football services	0.81	0.85	612.9	0.001
Attraction of investment and private sector participation	0.78			
Increased employment and creation of sport startups	0.85			

The findings of the exploratory factor analysis demonstrated that all designed items possessed acceptable factor loadings and that the factor structure of the questionnaire was confirmed. Moreover, the KMO values for all variables exceeded 0.70, while Bartlett's Test was significant at the 0.001 level, indicating sampling adequacy and the suitability of the correlation matrix for factor analysis.

In the qualitative phase, the data were analyzed using thematic analysis in order to extract the main and sub-themes. In the quantitative phase, both descriptive and inferential statistical methods were employed. Data analysis in the quantitative phase was conducted using SPSS version 24 and AMOS version 24. Initially, exploratory and confirmatory factor analyses were performed to examine construct validity. Subsequently, the final research model was tested using Structural Equation Modeling (SEM) to determine the effect size and prioritization of each identified barrier.

3. Findings and Results

To identify the barriers to digital marketing adoption in the development of entrepreneurship in the Iraqi football industry, semi-structured interviews were conducted with 17 experts and specialists in sport management, digital marketing, sport entrepreneurship, and digital media during the qualitative phase of the study. The participants included university faculty members, managers of sport startups, and professionals active in social media and digital marketing. Most participants held doctoral degrees and had more than 10 years of professional experience in relevant fields. The diversity of expertise among participants enriched the qualitative data and facilitated a comprehensive understanding of the challenges associated with digital marketing development in the Iraqi football industry. The demographic characteristics of the participants are presented in Table 3.

Table 3. Distribution of Participant Groups and Assigned Codes

No.	Professional Group	Frequency	Percentage	Assigned Code
1	University Faculty Members	7	41.2	P1–P7
2	Sport Startup Managers	4	23.5	P8–P11
3	Social Media and Digital Marketing Professionals	6	35.3	P12–P17
Total	—	17	100	—

The interview data were analyzed using thematic analysis. The analysis process was conducted in three stages: open coding, axial coding, and selective coding. In the first stage, 214 initial conceptual codes were extracted from the interview transcripts. Following the review, refinement, and integration of similar codes, 39 sub-themes were identified. During the selective coding stage, the sub-themes were categorized into seven major themes, leading to the development of a conceptual model of barriers to digital marketing adoption in entrepreneurship development within the Iraqi football industry.

To enhance the transparency of the data analysis process, an example of the transformation of initial codes into sub-themes and main themes is presented in Table 4.

Table 4. Example of the Coding and Theme Extraction Process

Initial Codes	Sub-theme	Main Theme
Frequent internet disruptions, low access speed, unstable online connectivity	Weak communication infrastructure	Infrastructure, Technology, and Data Barriers



Lack of fan databases, absence of CRM systems, poor data analytics	Weak fan data management	Infrastructure, Technology, and Data Barriers
Frequent changes in club management, discontinuation of digital projects	Managerial instability	Managerial and Organizational Barriers
Resistance of managers toward emerging technologies	Resistance to innovation	Managerial and Organizational Barriers
Restrictions on international payments and foreign advertising	Financial and banking constraints	Institutional, Political, and Economic Barriers
Fans' distrust of online purchasing	Low trust in digital services	Cultural and Social Barriers
Inability to understand fan behavior	Weak market and customer analysis	Commercial, Content, and Fan Engagement Barriers
Shortage of specialists in digital sports marketing	Lack of specialized human capital	Human Capital and Knowledge Ecosystem Barriers
Concerns regarding user data theft	Information security risks	Digital Trust and Cybersecurity Barriers

Based on the thematic analysis, seven major dimensions of barriers to digital marketing adoption in entrepreneurship development within the Iraqi football industry were identified. The interview findings revealed that these barriers are multidimensional and interrelated, influencing entrepreneurial activities in the football industry both directly and indirectly. The identified dimensions and themes are presented in Table 5.

Table 5. Dimensions and Themes of Barriers to Digital Marketing Adoption in Entrepreneurship Development within the Iraqi Football Industry

No.	Identified Barrier	Sub-themes
1	Infrastructure, Technology, and Data Barriers	Limited access to stable high-speed internet; absence of integrated data management and CRM systems; inadequate cloud storage and processing infrastructure; restricted access to advanced digital technologies
2	Managerial and Organizational Barriers	Managerial instability and frequent leadership changes; organizational resistance to digital innovation; weak data-driven culture; traditional and hierarchical organizational structures; dependence on intermediaries and non-specialized firms
3	Institutional, Political, and Economic Barriers	Weak e-commerce and digital advertising regulations; banking and currency transfer restrictions; inflation and economic instability
4	Cultural and Social Barriers	Generational gaps in technology adoption; cultural constraints in content production; weak brand identity development; low trust in online purchasing and payment systems
5	Commercial, Content, and Fan Engagement Barriers	Dependence on traditional revenue models; limited diversification of digital revenue streams; competition from foreign clubs; insufficient understanding of fan behavior; poor quality multimedia content
6	Human Capital and Knowledge Ecosystem Barriers	Shortage of digital sports marketing specialists; migration of skilled professionals; low digital literacy among sport managers; weak collaboration among universities, clubs, and startups
7	Digital Trust and Cybersecurity Barriers	Weak cybersecurity standards; concerns about fan data breaches; absence of clear data protection frameworks

The results presented in Table 5 indicate that the barriers to digital marketing adoption in entrepreneurship development within the Iraqi football industry are not limited to technical and technological issues. Rather, a combination of managerial, institutional, economic, cultural, and human factors contributes to this situation. Analysis of the frequency of the extracted themes revealed that managerial and organizational barriers, weaknesses in technology and data infrastructure, institutional and economic constraints, and the shortage of specialized human capital were the most frequently cited challenges among the experts interviewed. Furthermore, inadequate digital engagement with fans, the absence of a data-driven decision-making culture, and cybersecurity-related concerns emerged as significant and increasingly influential challenges in the development of digital marketing within Iraqi football.

Overall, the qualitative findings suggest that entrepreneurship development in the Iraqi football industry requires structural reforms in club management systems, the enhancement of information technology infrastructure, the improvement of digital competencies among human resources, stronger digital engagement with fans, and the formulation of supportive policies and regulations within the digital sports economy. Accordingly, the conceptual model derived from the qualitative phase served as the foundation for questionnaire development and the empirical testing of the model during the quantitative phase of the study.



In the quantitative phase of the study, a researcher-developed questionnaire was designed based on the dimensions and components extracted from the qualitative phase. Following the confirmation of content validity by a panel of experts, the questionnaire was distributed among the study sample. The target population in this phase consisted of football club managers, sports marketing experts, digital media practitioners, and faculty members in the field of sport management in Iraq. Ultimately, 387 valid questionnaires were collected and included in the analysis.

Descriptive analysis of the demographic characteristics indicated that 71% of the respondents were male and 29% were female. In terms of age, 38% of the participants were between 20 and 30 years old, 44% were between 30 and 40 years old, and 18% were over 40 years old. Regarding educational attainment, 42% held a bachelor's degree, 37% held a master's degree, and 21% possessed a doctoral degree. The majority of participants were sports managers, sports marketing specialists, university faculty members, and digital media practitioners.

To assess the reliability of the research constructs, Cronbach's alpha coefficients and Composite Reliability (CR) were calculated. Convergent validity was evaluated using the Average Variance Extracted (AVE) index. The results indicated that the Cronbach's alpha and composite reliability values for all constructs exceeded 0.70, while all AVE values were greater than 0.50. Therefore, the measurement instrument demonstrated satisfactory reliability and convergent validity.

Table 6. Reliability and Validity Indicators of the Research Constructs

Construct	Cronbach's Alpha	CR	AVE
Infrastructure, Technology, and Data Barriers	0.88	0.90	0.65
Managerial and Organizational Barriers	0.86	0.89	0.62
Institutional, Political, and Economic Barriers	0.84	0.87	0.60
Cultural and Social Barriers	0.82	0.85	0.58
Commercial, Content, and Fan Engagement Barriers	0.91	0.93	0.69
Human Capital and Knowledge Ecosystem Barriers	0.85	0.88	0.61
Digital Trust and Cybersecurity Barriers	0.81	0.84	0.57
Entrepreneurship Development in the Iraqi Football Industry	0.89	0.91	0.67

To examine data normality, the Kolmogorov–Smirnov test, as well as skewness and kurtosis indices, were employed. The results showed that the significance levels for all variables were greater than 0.05, and the skewness and kurtosis values fell within the acceptable range (± 2). Therefore, the data were normally distributed, and the application of parametric statistical techniques was considered appropriate.

Table 7. Means, Standard Deviations, and Correlations Between Research Dimensions and Entrepreneurship Development in the Iraqi Football Industry

No.	Variable	Mean	Standard Deviation	Correlation with Entrepreneurship Development	Significance Level
1	Infrastructure, Technology, and Data Barriers	4.11	0.71	-0.68	0.001
2	Managerial and Organizational Barriers	3.96	0.75	-0.63	0.001
3	Institutional, Political, and Economic Barriers	4.08	0.82	-0.59	0.001
4	Cultural and Social Barriers	3.74	0.69	-0.47	0.001
5	Commercial, Content, and Fan Engagement Barriers	4.15	0.77	-0.72	0.001
6	Human Capital and Knowledge Ecosystem Barriers	3.88	0.73	-0.56	0.001
7	Digital Trust and Cybersecurity Barriers	3.67	0.70	-0.44	0.001
8	Entrepreneurship Development in the Iraqi Football Industry	2.94	0.81	1.00	—

The results presented in Table 7 indicate that all identified dimensions were negatively and significantly associated with entrepreneurship development in the Iraqi football industry. Among these dimensions, commercial, content, and fan engagement barriers exhibited the strongest negative correlation with entrepreneurship development ($r = -0.72$). This finding suggests that as the severity of digital marketing barriers increases, opportunities for business development and entrepreneurial activities within the football industry decrease.

Prior to testing the structural model, the measurement model was evaluated through Confirmatory Factor Analysis (CFA). The results revealed that all factor loadings exceeded 0.50 and were statistically significant. Therefore, the measurement items



adequately represented their respective constructs, and the measurement model was confirmed. Following the validation of the measurement model, the structural relationships among the research constructs were examined using Structural Equation Modeling (SEM).

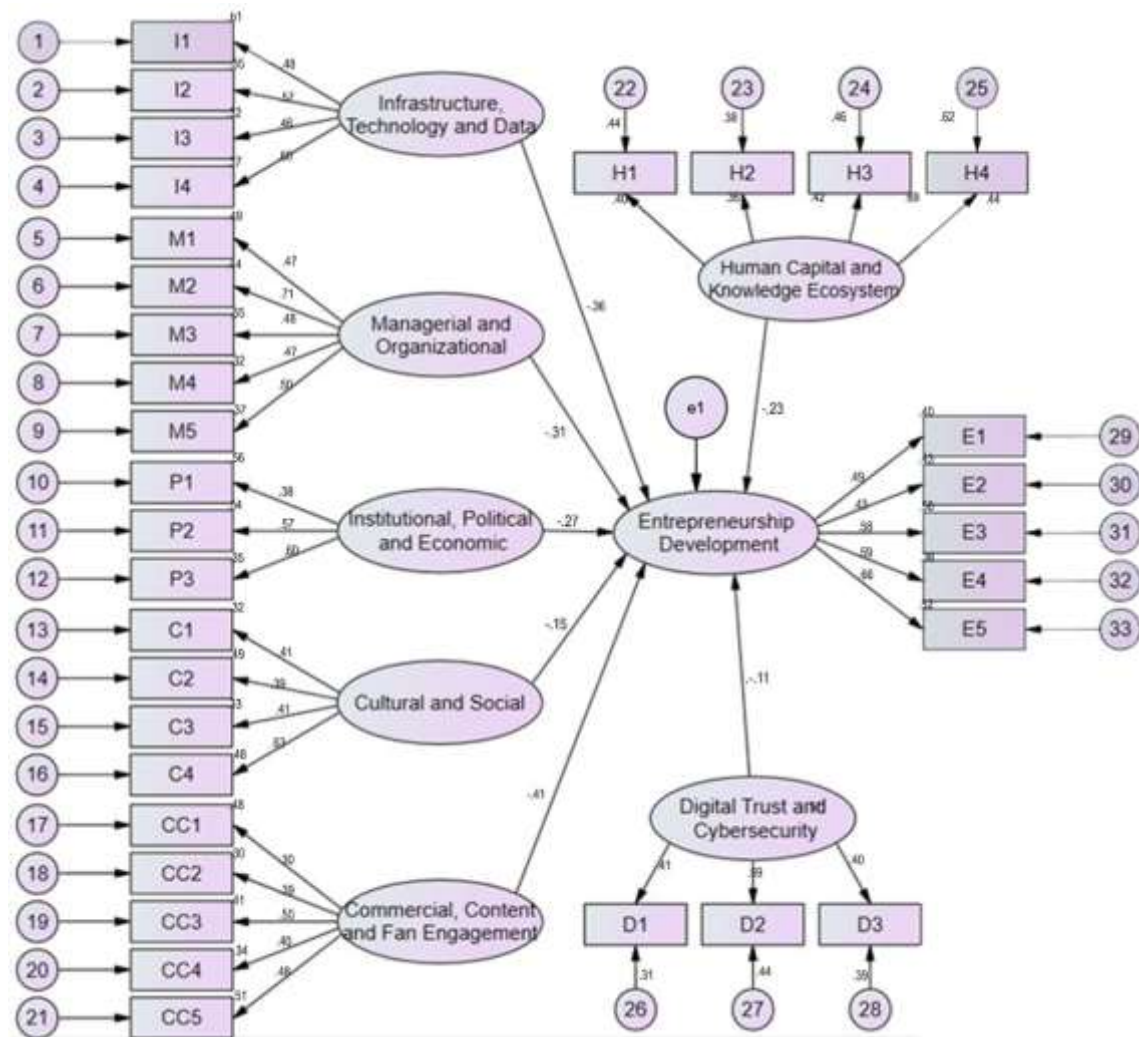


Figure 1. Structural Equation Model of the Study with Standardized Path Coefficients

The results of the structural model analysis indicated that all hypothesized paths were statistically significant at the 95% confidence level. The results of the path coefficients are presented in Table 8.

Table 8. Results of the Structural Model Path Analysis

Rank	Path	Path Coefficient	t-value	Significance Level
1	Commercial, Content, and Fan Engagement Barriers → Entrepreneurship Development in the Iraqi Football Industry	-0.41	8.42	0.001
2	Infrastructure, Technology, and Data Barriers → Entrepreneurship Development in the Iraqi Football Industry	-0.36	7.95	0.001
3	Managerial and Organizational Barriers → Entrepreneurship Development in the Iraqi Football Industry	-0.31	7.24	0.001
4	Institutional, Political, and Economic Barriers → Entrepreneurship Development in the Iraqi Football Industry	-0.27	6.88	0.001
5	Human Capital and Knowledge Ecosystem Barriers → Entrepreneurship Development in the Iraqi Football Industry	-0.23	6.17	0.001
6	Cultural and Social Barriers → Entrepreneurship Development in the Iraqi Football Industry	-0.15	5.34	0.001
7	Digital Trust and Cybersecurity Barriers → Entrepreneurship Development in the Iraqi Football Industry	-0.11	4.91	0.001

Based on the results presented in Table 8, all identified dimensions exerted significant negative effects on entrepreneurship development in the Iraqi football industry. The strongest negative effect was associated with commercial, content, and fan engagement barriers, indicating that weaknesses in digital revenue generation, professional content production, and effective fan engagement represent the most critical obstacles to entrepreneurial development in Iraqi football.

Table 9. Model Fit Indices

Index	AGFI	GFI	CFI	IFI	NFI	RMR	RMSEA	CMIN/DF
Acceptable Threshold	>0.90	>0.90	>0.90	>0.90	>0.90	<0.08	<0.08	<3
Obtained Value	0.93	0.92	0.95	0.94	0.92	0.041	0.038	2.31

The results presented in Table 9 indicate that all model fit indices fall within the acceptable range. The chi-square to degrees of freedom ratio (CMIN/DF = 2.31) was below the recommended threshold of 3. Furthermore, the comparative and incremental fit indices exceeded 0.90, while the RMSEA and RMR values were below 0.08. Therefore, the final research model demonstrated a satisfactory level of fit, and the relationships among the study constructs were empirically supported.

4. Discussion and Conclusion

The present study sought to identify and prioritize the barriers to digital marketing adoption in the development of entrepreneurship within the Iraqi football industry. Using a mixed-methods design, seven major categories of barriers were identified and subsequently validated through structural equation modeling. The findings revealed that all identified barriers exert a significant negative effect on entrepreneurship development, confirming that digital transformation in football is influenced by a complex combination of technological, organizational, institutional, cultural, and human-resource-related factors.

Among the identified barriers, commercial, content, and fan engagement barriers demonstrated the strongest negative impact on entrepreneurship development ($\beta = -0.41$). This finding highlights the critical role of digital commercialization and fan-centered business models in modern football. Contemporary football organizations increasingly generate revenue through digital content, online memberships, e-commerce platforms, data-driven sponsorships, and direct fan engagement. However, the findings suggest that Iraqi football clubs have not yet fully transitioned from traditional revenue models toward digitally driven business ecosystems. These results are consistent with previous studies (Jovanović et al., 2025; Khader & Jassim, 2025; Mannai, 2025) emphasizing that fan engagement and digital content capabilities are among the most important drivers of commercial growth and entrepreneurial success in professional sports organizations. The inability to understand fan behavior, develop personalized content, and create sustainable digital revenue streams substantially reduces entrepreneurial opportunities and limits long-term competitiveness. Therefore, football clubs should prioritize investments in content creation, customer relationship management systems, fan analytics, and digital commerce platforms to strengthen their entrepreneurial capacity.

The second most influential factor was infrastructure, technology, and data barriers ($\beta = -0.36$). The findings indicate that inadequate internet infrastructure, limited access to advanced digital technologies, weak data management systems, and the absence of integrated CRM platforms continue to constrain digital innovation within Iraqi football organizations. These findings support the broader digital transformation literature, which argues that technological infrastructure constitutes a foundational prerequisite for innovation and entrepreneurial development. Without reliable digital infrastructure and data-driven decision-making systems, organizations struggle to identify market opportunities, understand consumer preferences, and design effective marketing strategies. Consequently, policymakers and sports governing bodies should consider investments in digital infrastructure and technological modernization as strategic priorities for the future development of the football industry.

Managerial and organizational barriers emerged as the third most influential determinant of entrepreneurship development ($\beta = -0.31$). The results demonstrate that managerial instability, resistance to innovation, traditional leadership styles, and weak data-oriented cultures significantly hinder digital transformation efforts. These findings align with previous research indicating that organizational readiness and leadership commitment are critical determinants of successful technological adoption. In many developing sports environments, digital initiatives fail not because of technological limitations alone, but because



organizational structures remain resistant to change. Therefore, sustainable entrepreneurship development requires the professionalization of football management, the adoption of strategic planning practices, and the promotion of innovation-oriented organizational cultures.

Institutional, political, and economic barriers also exerted a significant negative influence on entrepreneurship development ($\beta = -0.27$). Economic instability, limitations in electronic commerce, banking restrictions, and regulatory uncertainties create an environment that discourages investment and entrepreneurial activity. This finding reflects the broader realities of emerging economies, where institutional constraints frequently limit the commercialization potential of sports organizations. Previous studies (Al Barwari et al., 2025; Hammerschmidt et al., 2024; Javani et al., 2024; Jo & Shin, 2024; Khader & Jassim, 2025; Moradi & Fahem, 2024) have similarly demonstrated that stable regulatory frameworks and supportive economic policies are essential for fostering entrepreneurship and innovation. Accordingly, sports policymakers should work toward simplifying digital business regulations, facilitating electronic payment systems, and creating incentives for private-sector investment in football-related ventures.

Human capital and knowledge ecosystem barriers ranked fifth among the identified dimensions ($\beta = -0.23$). The shortage of qualified professionals in digital sports marketing, limited collaboration between universities and football organizations, and the migration of skilled specialists represent significant obstacles to innovation and entrepreneurial growth. This finding is consistent with human capital theory, which emphasizes the central role of knowledge, expertise, and skills in organizational development and innovation. The results suggest that entrepreneurship in Iraqi football cannot flourish without targeted investments in education, professional training, and industry–academia collaboration. Establishing specialized training programs and strengthening partnerships among universities, football clubs, and digital enterprises may significantly improve the sector's innovation capacity.

Cultural and social barriers were also found to negatively influence entrepreneurship development ($\beta = -0.15$). Although their effect size was lower than that of the previously discussed barriers, their influence remains meaningful. The findings indicate that low levels of trust in online transactions, limited acceptance of digital technologies, and weak digital brand identities continue to constrain the adoption of digital marketing practices. Similar observations have been reported in studies (Al-Khateeb, 2025; Al Barwari et al., 2025; Baaiwi et al., 2024; Hammerschmidt et al., 2024; Mastromartino & Zhang, 2023; Read & Smith, 2023) conducted in other developing countries, where cultural resistance and limited digital literacy often slow the diffusion of technological innovations. Addressing these challenges requires awareness-building initiatives, digital literacy programs, and the promotion of successful digital entrepreneurship cases within the sports sector.

Finally, digital trust and cybersecurity barriers exhibited the lowest, yet still significant, negative effect on entrepreneurship development ($\beta = -0.11$). Although cybersecurity concerns may currently receive less attention than economic or managerial issues, the increasing digitalization of sports organizations suggests that their importance will continue to grow. The protection of customer data, secure digital transactions, and the establishment of clear data governance policies are becoming essential requirements for sustainable digital business development. Consequently, football organizations should proactively strengthen cybersecurity capabilities and implement internationally recognized data protection standards to enhance stakeholder trust and reduce digital risks.

Overall, the findings of this study demonstrate that entrepreneurship development in the Iraqi football industry is not solely dependent on technological advancement but requires a comprehensive transformation encompassing managerial, institutional, economic, cultural, and human-capital dimensions. The study contributes to the existing literature by providing one of the first empirically validated frameworks explaining the barriers to digital marketing adoption in the context of Iraqi football. Furthermore, it extends current knowledge regarding digital transformation and sports entrepreneurship in emerging economies.

From a practical perspective, the findings suggest that football clubs, sports federations, policymakers, and private-sector stakeholders should adopt an integrated approach to digital transformation. Strategic investments in technological infrastructure, professional management systems, human capital development, digital content creation, fan engagement mechanisms, and supportive regulatory frameworks are essential for creating a sustainable entrepreneurial ecosystem within the football industry.



Taken together, these findings demonstrate that addressing digital marketing barriers requires coordinated actions at the technological, organizational, institutional, and policy levels to create a sustainable entrepreneurial ecosystem within Iraqi football.

Ethical Considerations

Page | 11 All procedures performed in this study were under the ethical standards.

Acknowledgments

Authors thank all who helped us through this study.

Conflict of Interest

The authors report no conflict of interest.

Funding/Financial Support

According to the authors, this article has no financial support.

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