

ORIGINAL ARTICLE**Identifying and Prioritizing Factors Influencing Sports Clubs Site Selection Using Geomarketing Approach**Fateh Faraziani^{1*}, Hadighe Rahmanzade²

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EXTENDED ABSTRACT**Introduction**

From a marketing perspective, “place” has transitioned from being merely one element of the traditional marketing mix to becoming a strategic competitive advantage. In this context, geomarketing has emerged as an interdisciplinary paradigm integrating spatial intelligence, geographic information systems (GIS), demographic analysis, and consumer behavior studies to support data-driven location decisions. Geomarketing views location not only as a physical coordinate but as a multidimensional strategic variable that influences accessibility, market demand, competitive positioning, and economic performance.

Classical location theories—such as Von Thünen’s agricultural land use theory, Weber’s industrial location theory, and Christaller’s central place theory—emphasized transportation cost, market threshold, and spatial hierarchy as determinants of economic activities. Contemporary geomarketing expands these theoretical foundations by incorporating multi-criteria decision-making (MCDM) tools and spatial analytics to address complex service-sector decisions. In service-based businesses, particularly those requiring physical customer presence such as sports clubs, spatial proximity plays a decisive role in customer choice. Empirical research suggests that most fitness customers are unwilling to travel more than 15 minutes to reach a facility, reinforcing the critical importance of accessibility in site selection.

In Iran, despite rapid growth in private fitness centers, location decisions are often made based on intuition, personal experience, or limited financial considerations rather than systematic spatial-market analysis. Moreover, the country exhibits significant geographic, demographic, economic, and cultural heterogeneity. Large metropolitan areas, mid-sized cities, mountainous regions, and less densely populated zones demonstrate distinct patterns of demand, infrastructure availability, and competitive intensity. Official reports indicate disparities in per capita sports space distribution across provinces, highlighting spatial inequalities in service access. However, there is currently no comprehensive, context-specific geomarketing model designed for private sports club site selection at the national level.

Existing Iranian studies primarily focus on public sports facilities using GIS and AHP methods but rarely integrate market-oriented variables such as customer purchasing power, lifestyle, or competition dynamics. Furthermore, limited research has applied a hybrid Fuzzy Delphi–AHP approach to systematically identify, refine, and prioritize site selection indicators based on expert consensus.

Therefore, the present study aims to fill this theoretical and practical gap by identifying, screening, and prioritizing geomarketing factors influencing optimal site selection of private sports clubs in Iran. The central research question guiding this study is:

What are the key geomarketing factors affecting optimal private sports club site selection in Iran, and how should they be prioritized?

The study seeks to:

Systematically extract relevant indicators from literature.

Achieve expert consensus using Fuzzy Delphi.

Quantitatively prioritize criteria using the Analytic Hierarchy Process (AHP).

Develop a weighted, context-specific geomarketing decision-support framework.

The findings contribute both theoretically—by enriching geomarketing and sports management literature—and practically—by reducing investment risk and promoting balanced spatial development of sports services.

Methodology

This research is applied in purpose and descriptive–analytical in nature, employing a mixed-method design (qualitative–quantitative). A hybrid methodology combining Fuzzy Delphi and Analytic Hierarchy Process (AHP) was adopted to ensure both consensus-based refinement and quantitative prioritization.

Stage 1: Indicator Identification

A systematic literature review covering geomarketing, spatial economics, sports management, urban planning, and multi-criteria decision-making studies was conducted. Based on this review, 78 preliminary indicators were identified and classified into 10 main dimensions:

Accessibility

Physical/Spatial Characteristics

Economic/Cost Factors

Place Attractiveness

Performance Criteria

Population Structure & Customer Characteristics

Customer Economic Factors

Competitive Conditions

Market Saturation

Market Attractiveness

Stage 2: Fuzzy Delphi Method

To refine and validate the indicators, the Fuzzy Delphi method was employed. Fifteen national experts were purposively selected, including:

Selection criteria included a minimum of five years of professional experience, familiarity with spatial-market analysis, and national-level perspective.

A five-point linguistic scale (very low to very high) was converted into triangular fuzzy numbers. Three Delphi rounds were conducted. After each round, statistical feedback (mean and dispersion) was provided to participants to facilitate convergence.

The stopping criterion was set at a mean difference of less than 0.2 between consecutive rounds. After three rounds, consensus was achieved. Five indicators were eliminated due to low consensus, redundancy, or lack of

predictive relevance. Consequently, 73 indicators remained in the final model.

Stage 3: Analytic Hierarchy Process (AHP)

In the quantitative phase, pairwise comparison matrices were designed based on Saaty's 1–9 scale. Experts compared both dimensions and sub-indicators.

Weights were calculated using the eigenvector method. Consistency Ratio (CR) values for all matrices were below 0.1, confirming logical consistency.

Final global weights were obtained by multiplying local weights (within each dimension) by global dimension weights.

Data analysis was conducted using Excel and Expert Choice software

Findings

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Stage 2: Fuzzy Delphi Method

To refine and validate the indicators, the Fuzzy Delphi method was employed. Fifteen national experts were purposively selected, including:

- 8 private sports club managers
- 4 sports management specialists
- 2 human geography experts
- 1 urban planner

Selection criteria included a minimum of five years of professional experience, familiarity with spatial-market analysis, and national-level perspective.

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Findings

Dimension-Level Prioritization

The AHP results indicate the following ranking of main dimensions:

Table 1. Final Ranking and Relative Weights of Main Geomarketing Dimensions Based on AHP Analysis

Rank	Dimension	Final Weight
	Population Structure & Customer Characteristics	0.158
	Accessibility	0.142
	Physical/Spatial Characteristics	0.098
	Performance Criteria	0.092

Competitive Conditions	0.088
Place Attractiveness	0.085
Market Attractiveness	0.079
Economic/Cost Factors	0.071
Customer Economic Factors	0.056
Market Saturation	0.050

The first three dimensions together account for over 40% of total weight, forming the strategic triad of Customer–Accessibility–Location.

Key Indicators

The most influential global indicators include:

Population density within catchment area (0.039)

Strategic location at corner/intersection (0.032)

Income and purchasing power (0.031)

Age and gender composition (0.026)

Distance to main roads (0.026)

Availability of parking (0.023)

Service diversity and quality (0.021)

Expected profitability (high within performance dimension)

Number of competitors (dominant in competition dimension)

Security and street lighting

The results emphasize demand-driven, accessibility-oriented, and service-quality-based decision logic.

Discussion and Conclusion

The prioritization pattern reflects a strong market-oriented perspective among national experts. The dominance of “Population Structure & Customer Characteristics” indicates that demand analysis precedes all other considerations in private investment decisions. This aligns with international findings highlighting population density and income as primary determinants of sports club distribution.

However, unlike studies conducted in highly developed urban transit systems where public transport accessibility dominates, Iranian experts placed stronger emphasis on car-based accessibility indicators such as parking availability and strategic intersection location. This reflects the heterogeneous transportation infrastructure across Iranian cities.

The significant weight assigned to physical/service quality suggests that competitive differentiation in Iran increasingly depends on service experience rather than mere facility size. Customers prioritize functional efficiency and service diversity over architectural grandeur.

Interestingly, the relatively low weight of “Market Saturation” suggests that many Iranian regions still offer growth opportunities, unlike mature European markets where saturation strongly influences entry decisions.

The elimination of certain indicators during the Delphi process strengthened the model’s predictive relevance by removing outcome-based or overlapping variables.

Overall, the study confirms that geomarketing in Iran must integrate demographic demand analysis, infrastructural accessibility, competitive intelligence, and economic feasibility within a unified framework.

This study developed and validated a comprehensive, context-specific geomarketing model for optimal site selection of private sports clubs in Iran. By combining Fuzzy Delphi and AHP, it transformed qualitative expert judgments into a structured quantitative decision-support framework.

The findings reveal that optimal site selection in Iran is primarily driven by:

1. Customer demand characteristics
2. Ease of access
3. Physical and service-related quality

The strategic triad of Customer–Accessibility–Location constitutes the core of the proposed model.

Practically, the model:

Reduces investment risk

Supports evidence-based location decisions

Promotes balanced spatial distribution of sports services

Enables integration with GIS for spatial suitability mapping

Theoretically, the study advances geomarketing literature by providing a national-scale, market-oriented model tailored to developing economies with spatial heterogeneity.

KEY WORDS

Sports Club Site Selection, Geomarketing, Fuzzy Delphi, Analytic Hierarchy Process (AHP), Multi-Criteria Decision-Making.

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