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# Re-identification and Prioritization of Factors Affecting the Reengineering of Sports Businesses with an Emphasis on Customer Relationship Management

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#### **Abstract**

The purpose of this study was to re-identify and prioritize the dimensions and factors influencing the reengineering of sports businesses with an emphasis on customer relationship management. The research method was descriptive-survey, in which quantitative methods, including questionnaire design and the use of statistical techniques, as well as qualitative methods, including interviews with experts and coding, were employed. Initially, the research expert team conducted an in-depth study to examine the theoretical foundations and research background, and to collect and categorize data. Subsequently, through interviews with experts in the field of sports marketing in the country, the factors influencing the reengineering of businesses in sports organizations were re-identified and determined. Experts in this field were consulted to review and validate the extracted factors. In order to prioritize the criteria, the Fuzzy Analytic Hierarchy Process (FAHP) method was used. In total, 12 factors were identified as variables influencing the reengineering of sports businesses, categorized into three dimensions: structural, communicational, and functional. Accordingly, the "structural" dimension, with a weight of 0.52186, ranked highest in importance, followed by the "communicational" dimension, with a weight of 0.52186, and finally, the "functional" dimension, with a weight of 0.39209. Among these, the factor "branding" had the highest weight (0.37122). The next influential factor was "creativity and innovation in the production of goods and the provision of services to users," with a weight of 0.34289. The least important factor was identified as "designing an attractive and unique environment for the organization," with a weight of 0.05542. Overall, attention to the three dimensions-structural, communicational, and functional-with an emphasis on their order of priority can help sports marketing managers and planners ensure the effectiveness of their decisions. In this regard, strategic priority lies with branding and creativity and innovation in providing sports goods and services.

Keywords: Reengineering, sports business, customer relationship management, fuzzy analytic hierarchy process

#### 1. Introduction

In the increasingly competitive environment of sports-related industries, organizations are compelled to continually reengineer their business processes to enhance efficiency, responsiveness, and customer satisfaction. Business process reengineering (BPR), when integrated with customer relationship management (CRM), has emerged as a strategic approach to

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improve operational performance and foster long-term relationships with customers (Fallah et al., 2020; Harajchi & Harajchi, 2020). In sports businesses, where customer experience and loyalty are key determinants of market success, leveraging CRM capabilities is critical for creating value propositions that resonate with diverse customer segments (Ahmad et al., 2019; Badri Azarin et al., 2023). As the sports industry becomes more service-oriented, adapting processes to meet evolving customer expectations requires dynamic capabilities that support innovation, adaptability, and strategic alignment (Stacho et al., 2019; Page | 2 Teece, 2018).

The integration of CRM into sports organizations' operational models allows for the collection, analysis, and application of customer data to tailor services, enhance brand experiences, and drive repeat patronage (Akoglu & Özbek, 2022; Bonfanti et al., 2023). For instance, personalization strategies derived from CRM analytics have been shown to increase revisit intentions and strengthen brand loyalty among sports consumers (Ahmad et al., 2019; Moharramzadeh et al., 2023). Moreover, the incorporation of social CRM (SCRM) practices facilitates two-way communication and engagement with customers via digital platforms, thereby enabling organizations to respond more effectively to feedback and market changes (Daneshfar et al., 2019; Jafari & Yaghoobi Jahromi, 2018). Social media channels, in particular, have become indispensable for sports organizations seeking to reach broader audiences, stimulate brand interactions, and implement targeted promotional campaigns (Bahrami et al., 2022; Bastami et al., 2023).

From a managerial perspective, understanding the drivers of customer satisfaction and loyalty in sports businesses necessitates a multidimensional view of CRM that encompasses service quality, pricing strategies, promotional effectiveness, and brand positioning (Nazari et al., 2019; Soltani et al., 2023). Effective CRM systems contribute to a deeper understanding of customer needs, enabling the development of differentiated offerings and competitive pricing models (Farahani et al., 2024; Yazdani Dehnowi & Adeli, 2024). Furthermore, the implementation of brand experience strategies can enhance perceived quality and trust, which are critical mediators in the relationship between service delivery and brand loyalty (Akoglu & Özbek, 2022; Alt et al., 2019). In sports retail and service environments, the design of memorable shopping experiences that integrate physical and digital interactions—the "phygital" approach—can further reinforce customer engagement (Bonfanti et al., 2023).

In the context of business process maturity, sports organizations must assess and continuously improve their process capabilities to sustain competitive advantage (Jalili et al., 2020). Maturity models in sports manufacturing and service companies provide frameworks for identifying gaps in current operations and aligning processes with strategic objectives (Heydari et al., 2021; Rostamzadeh et al., 2021). These models also facilitate the integration of customer knowledge management (CKM) into CRM systems, ensuring that customer data is effectively utilized to inform decision-making (Heydari et al., 2021; Ng, 2024). CKM plays a pivotal role in retaining customers, especially in membership-based sports services, by improving relationship quality and satisfaction (Hosseini Nia et al., 2020; Ng, 2024).

Global competitive pressures have prompted sports organizations to adopt innovative marketing and branding strategies to differentiate themselves (Badri Azarin et al., 2023; Bastami et al., 2023). Brand reputation, in particular, has been identified as a decisive factor influencing customer choice in sports product markets (Moharramzadeh et al., 2023). Strategic branding initiatives should be complemented by targeted advertising efforts, particularly through social media, which has been shown to significantly influence customer willingness to purchase sports products (Bahrami et al., 2022). Moreover, the combination of online and offline retail models requires an understanding of the differing purchasing behaviors of customers across these channels (Farahani et al., 2024; Yazdani Dehnowi & Adeli, 2024).

From a theoretical standpoint, the alignment of CRM with dynamic capabilities theory emphasizes the role of adaptive, integrative, and innovative processes in sustaining organizational competitiveness (Gulati et al., 2019; Teece, 2018). Dynamic capabilities enable organizations to sense changes in customer preferences, seize market opportunities, and reconfigure resources to deliver superior value propositions (Alt et al., 2019; Stacho et al., 2019). This theoretical framing underscores

the need for continuous process reengineering in sports organizations to remain relevant in rapidly shifting market environments (Fallah et al., 2020; Harajchi & Harajchi, 2020).

In addition to structural and operational improvements, fostering customer loyalty requires an understanding of the psychological and emotional dimensions of consumer behavior in sports contexts (Law et al., 2022; Moharramzadeh et al., 2023). Studies have shown that positive service experiences, brand trust, and perceived value significantly influence repurchase intentions (Akoglu & Özbek, 2022; Law et al., 2022). Service improvement strategies that address customer grievances and foster forgiveness can further enhance behavioral intentions (Soltani et al., 2023). Similarly, promoting managerial creativity within sports organizations can strengthen CRM initiatives and contribute to higher levels of customer loyalty (Nazari et al., 2019).

Process reengineering in sports organizations also involves evaluating financial and operational performance indicators to ensure sustainability (Dalla & Varelas, 2019; Gulati et al., 2019). While BPR can deliver significant improvements in efficiency and customer orientation, its success is contingent upon the alignment of process changes with organizational culture, stakeholder expectations, and market realities (Daneshfar et al., 2019; Fallah et al., 2020). In this regard, developing a coherent model that integrates CRM and BPR elements offers a strategic pathway for sports businesses aiming to enhance their market positioning (Harajchi & Harajchi, 2020; Heydari et al., 2021).

Given the growing importance of technology in sports marketing and service delivery, digital transformation initiatives have become essential for effective CRM implementation (Alt et al., 2019; Bonfanti et al., 2023). Online sales channels, mobile applications, and social media platforms not only facilitate customer engagement but also provide valuable data for refining marketing strategies (Bahrami et al., 2022; Ng, 2024). The adoption of data-driven decision-making in sports organizations enables the personalization of services and fosters long-term customer relationships (Hosseini Nia et al., 2020; Ng, 2024).

The sports industry's evolution toward customer-centric business models requires managers to integrate multiple dimensions of CRM—technological, organizational, and strategic—into their operations (Heydari et al., 2021; Teece, 2018). This integration enhances the organization's ability to deliver consistent value across all customer touchpoints (Akoglu & Özbek, 2022; Alt et al., 2019). In doing so, sports organizations can position themselves to respond proactively to market trends, strengthen customer loyalty, and improve overall business performance (Badri Azarin et al., 2023; Nazari et al., 2019).

Overall, the literature suggests that the convergence of CRM, CKM, and BPR provides a robust framework for achieving sustainable competitive advantage in sports businesses (Fallah et al., 2020; Heydari et al., 2021; Ng, 2024). By leveraging customer insights, fostering innovation, and continuously reengineering processes, sports organizations can create differentiated offerings that meet and exceed customer expectations (Bastami et al., 2023; Bonfanti et al., 2023). The present study builds on these theoretical and empirical foundations to identify, categorize, and prioritize the factors influencing business process reengineering in sports organizations, with a particular emphasis on customer relationship management.

### 2. Methods and Materials

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This research, in terms of its objective, is developmental, and in terms of implementation method, is descriptive—survey in nature, employing both quantitative methods (including questionnaire design and the use of quantitative statistical techniques) and qualitative methods (including interviews with experts and coding). In terms of time dimension, it is cross-sectional, and the theorizing approach in this study is inductive. Initially, the research expert team, using an in-depth study method, examined the theoretical foundations and research background, and collected and categorized the data. Subsequently, through interviews with experts in the field of sports marketing in the country, the factors influencing the reengineering of businesses in sports organizations were re-identified and determined. In this stage, 16 experts in the field of sports marketing were invited to review and validate the extracted factors (Table 1). For this purpose, the snowball sampling method was used until theoretical consensus was reached.

Table 1. Demographic characteristics of participants in the qualitative phase of the study

Tarticipant Specification Waster's This Temate Water To 20 years	Participant Specification	Master's	PhD	Female	Male	10-20 years	More than 20 years
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Expert in sports marketing	4	12	2	14	7	9	

Next, to prioritize the criteria, the Fuzzy Analytic Hierarchy Process (FAHP) method was employed. The statistical population in the quantitative phase consisted of all individuals with substantial experience (more than 10 years) in the production of sports goods and products, as well as managers of organizations and owners of sports complexes with more than 5 years of experience, experts in the field of sports marketing, and professional consumers of sports goods and services Page | 4 nationwide. Given that the statistical population in the quantitative phase of the study was considered unlimited, based on Morgan's table, 384 individuals were selected as the sample. Considering the possibility of non-return of some questionnaires, a total of 400 questionnaires were distributed, and 386 were collected.

This method was used for analyzing the pairwise comparison matrix through fuzzy logic. In the conventional Analytic Hierarchy Process, the competencies and mental abilities of experts are used to make the comparisons. However, it should be noted that the traditional pairwise comparison method cannot fully reflect the human thought style. The use of fuzzy numbers is more compatible with human verbal and sometimes ambiguous expressions. Therefore, it is preferable to use fuzzy numbers for decision-making in the real world. Two Dutch researchers, van Laarhoven and Pedrycz, in 1983, first proposed a method for the Fuzzy Analytic Hierarchy Process (Chard et al., 2013). This method is based on replacing triangular fuzzy numbers in the pairwise comparison matrix and using the logarithmic least squares approach. Due to the complexity of its steps, this method has not been widely used. Since then, various methods for the Fuzzy Analytic Hierarchy Process have been proposed. Expert opinions can be obtained in the form of expressions such as "more important," "much more important," etc., and then converted into triangular fuzzy numbers using the corresponding table. In this study, an improved (extended) algorithm was used for fuzzification. The improved fuzzy AHP method is one of the multi-criteria decision-making methods that determines the weights of criteria by obtaining the geometric mean of the rows of the pairwise comparisons and then inverting them. This method, referred to as Buckley's method, is considered a replacement for Chang's method, as Chang's method had shortcomings such as producing zero and negative weights (Buckley, 1985).

The steps are as follows:

# 1 – Data Entry

First, by selecting the desired fuzzy scale, the collected data are entered into the pairwise comparison matrix. If there is more than one expert, the fuzzy geometric mean is used to aggregate expert opinions.

## 2 – Fuzzy Expansion of Each Row

To determine the initial weight of each element, the concept of fuzzy expansion is used. Chang proposed that for fuzzy expansion, the sum of the fuzzy numbers in each row should be calculated. Therefore, in the fuzzy pairwise comparison matrix, the geometric mean of the elements in each row is computed.

$$\prod_{i=1}^{n} \widetilde{F}_{i} = \left(\prod_{i=1}^{n} \widetilde{l}_{i}, \prod_{i=1}^{n} \widetilde{m}_{i}, \prod_{i=1}^{n} \widetilde{u}_{i}\right)$$

The fuzzy expansion of each row represents the initial weight of the element in that row, which must be normalized. Chan and Kumar (2007) used the concept of degree of possibility for normalization, but numerous studies have shown that this method does not always yield correct results and has many shortcomings. Therefore, the following solution is proposed:

If the geometric mean of each row (fuzzy expansion of each row) is denoted as Si, for normalization, the sum of all fuzzy expansions of all rows (initial fuzzy weights) is calculated. The total preferences of all elements,  $\Sigma(Si)$ , are computed. For normalization, the fuzzy expansion of each element Si is divided by the sum of all preferences  $\Sigma(Si)$ . Since the values are fuzzy, the following formula is used to calculate the weight of each element:

$$\tilde{S}_i = \prod_{j=1}^n \tilde{\alpha}_{ij} \otimes \left[ \sum_{i=1}^n \prod_{j=1}^n \tilde{\alpha}_{ij} \right]^{-1}$$

## 3 – Defuzzification

The calculated weight is the final weight of the element under consideration. These weights are fuzzy; thus, defuzzification methods are used to calculate crisp weights. Various defuzzification methods can be applied for this purpose. This step is crucial in the Fuzzy Analytic Hierarchy Process. The obtained crisp weights can then be normalized using the linear normalization method (Table 2).

Table 2. Fuzzy spectrum equivalent to the 9-point scale in the AHP technique

	Verbal Statement – Comparison Status of <i>i</i> relative to <i>j</i>	Fuzzy Equivalent (l, m, u)	Inverse Fuzzy Equivalent (l, m, u)
	Equal preference	(1, 1, 1)	(1, 1, 1)
D   6	Intermediate	(3, 2, 1)	(1, 0.5, 0.333)
Page   5	Slightly preferred	(4, 3, 2)	(0.5, 0.333, 0.25)
	Intermediate	(5, 4, 3)	(0.333, 0.25, 0.2)
	Strongly preferred	(6, 5, 4)	(0.25, 0.2, 0.166)
	Intermediate	(7, 6, 5)	(0.2, 0.16, 0.142)
	Very strongly preferred	(8, 7, 6)	(0.166, 0.142, 0.125)
	Intermediate	(9, 8, 7)	(0.142, 0.125, 0.111)
	Absolutely preferred	(9, 9, 9)	(0.111, 0.111, 0.111)

## 4 – Inconsistency Rate in the Fuzzy AHP Method

The inconsistency rate indicates whether the pairwise comparisons are consistent or not. This rate must always be less than 0.1 for the pairwise comparison matrix to be considered consistent

### 3. Findings and Results

Initially, the components extracted from the theoretical foundations are reported.

The results of examining the theoretical foundations and research background, which led to the extraction of factors influencing the reengineering of sports businesses with a social customer relationship management approach, are presented in Table 3.

Table 3. Factors influencing the reengineering of business in sports organizations with an emphasis on customer relationship management

No.	Component
1	Improving product/service quality
2	Creating variety in product/service
3	Creativity and innovation in the production of goods and provision of services to users
4	Competitive pricing for products and services
5	Extensive advertising
6	Increasing the price of services and products aimed at offering them to special customers
7	Branding
8	Strengthening public relations and continuous surveying of users and customers
9	Expansion of branches and agencies
10	Using sales methods in social networks (online)
11	Designing special facilities or discounts for special customers
12	Designing an attractive and unique environment for the organization/company

Using the components extracted from the literature review and expert interviews, the criteria influencing the research topic were categorized. To examine the stated assumption regarding the data distribution of the criteria, the Kolmogorov–Smirnov (KS) test was used. In this test, the null hypothesis states the claimed distribution type of the data.

The results of the Kolmogorov–Smirnov test for the research criteria, shown in Table 4, indicate that the distribution of all variables (12 items) in the sample follows a normal distribution, since the significance level is greater than 5%, and the null hypothesis is not rejected. Therefore, the distribution of the variables is normal. In Table 4, the components extracted from the literature review and exploratory interviews are categorized, and the results of the Kolmogorov–Smirnov test are presented.

Table 4. Categorization of components extracted from the literature review and exploratory interviews and KS test results

Dimension	Component	Index (Abbreviated Objective Title)	Significance Level	Test Result
Structural	Improving product/service quality	A1	0.066	Normal
	Creating variety in product/service	A2	0.109	Normal

	Increasing the price of services and products aimed at offering them to special customers	A3	0.323	Normal	_
	Branding	A4	0.088	Normal	
Communicational	Advertising	B1	0.093	Normal	
	Strengthening public relations and continuous surveying of users and customers	B2	0.123	Normal	
	Using sales methods in social networks (online)	B3	0.123	Normal	
	Designing special facilities or discounts for special customers	B4	0.098	Normal	Page   6
Functional	Creativity and innovation in the production of goods and provision of services to users	C1	0.127	Normal	
	Competitive pricing for products and services	C2	0.098	Normal	
	Expansion of branches and agencies	C3	0.169	Normal	
	Designing an attractive and unique environment for the organization/company	C4	0.213	Normal	

In the next step, using an electronic questionnaire (FAHP method), pairwise comparison and weighting of dimensions and components were carried out. The results of the pairwise comparison of the three dimensions are presented in Table 5. The final results of the weights of the three dimensions are also shown in Table 6.

Table 5.- Pairwise comparison of the three dimensions

	A = Structural Dimension	B = Communicational Dimension	C = Functional Dimension
	L	M	U
A	1	1	1
В	4	5	6
C	3	4	5

Inconsistency Rate: CRg = 0.0717 and CRm = 0.0256

Table 6. Final results of fuzzy, crisp, and normalized weights of the three dimensions

Row Geometric Mean	Fuzzy Weights	Crisp Weights	Normalized Weight	Criterion
2.464777	3.622300	3.722419	0.382304	0.551962
1.515140	2.111077	2.733016	0.282315	0.331961
1.211570	1.557514	1.047712	0.112110	0.290262
Sum: 5.191487	7.290891	7.503147	_	_
(Source: Research findings)				

Accordingly, the "structural" dimension, with a weight of 0.52186, has the highest level of importance, followed by the "communicational" dimension, with a weight of 0.52186, and finally, the "functional" dimension, with a weight of 0.39209.

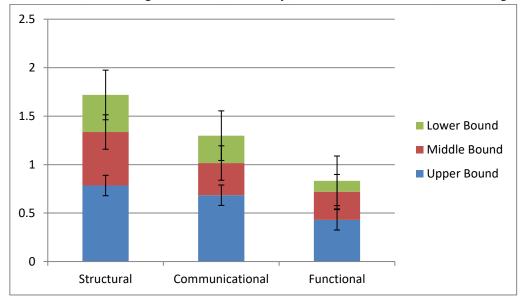


Figure 1. Comparative chart of the fuzzy weights of the three dimensions

In Table 7, the final aggregated results of the pairwise–fuzzy comparison of the components are presented.

Table 7. Final results of fuzzy, crisp, and normalized weights of the components

	Component	Crisp Weight	Normalized Weight
	Branding	0.37147	0.37122
	Creativity and innovation in the production of goods and provision of services to users	0.34490	0.34289
	Designing special facilities or discounts for special customers	0.32243	0.31165
	Competitive pricing for products and services	0.37709	0.30087
Page   7	Using sales methods in social networks (online)	0.29990	0.29613
8-   /	Improving product/service quality	0.26676	0.25567
	Creating variety in product/service	0.22855	0.20977
	Advertising	0.21087	0.19089
	Strengthening public relations and continuous surveying of users and customers	0.13545	0.12442
	Increasing the price of services and products aimed at offering them to special customers	0.11176	0.10909
	Expansion of branches and agencies	0.08923	0.08807
	Designing an attractive and unique environment for the organization/company	0.07733	0.05542

Inconsistency Rate: CRg = 0.0788 and CRm = 0.0359

Finally, the final weights of the sub-criteria were calculated, as shown in Figure 2.

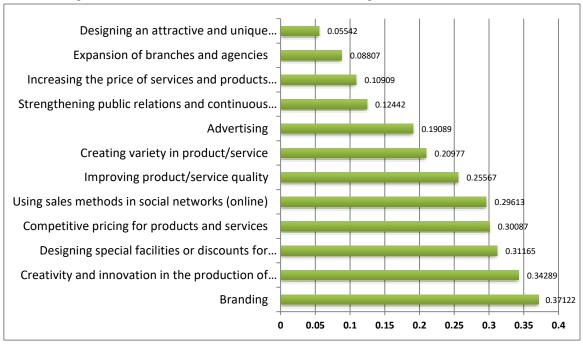


Figure 2. Ranking chart of the components based on the final fuzzy weights obtained from the interaction of the three dimensions

## 4. Discussion and Conclusion

The findings of this study identified and prioritized twelve key components influencing the reengineering of sports businesses with an emphasis on customer relationship management, categorized into three main dimensions: structural, communicational, and functional. The results of the Fuzzy Analytic Hierarchy Process (FAHP) analysis revealed that the structural dimension carried the highest relative weight, followed closely by the communicational dimension, and finally, the functional dimension. Within these, "branding" and "creativity and innovation in the production of goods and provision of services to users" emerged as the most influential components, while "designing an attractive and unique environment for the organization/company" held the lowest priority. These findings align with the growing recognition in the literature that structural and brand-oriented strategies are critical levers for creating sustainable competitive advantages in sports organizations (Akoglu & Özbek, 2022; Moharramzadeh et al., 2023; Nazari et al., 2019).

The prioritization of the structural dimension underscores the importance of internal organizational frameworks and processes in enabling effective CRM-based reengineering. As previous research indicates, without robust structural

foundations—including efficient process designs, well-defined workflows, and flexible operational frameworks—efforts to enhance customer relationships are unlikely to yield sustainable results (Fallah et al., 2020; Heydari et al., 2021). These structures not only facilitate the systematic collection and application of customer data but also ensure that reengineering initiatives are implemented in a coordinated manner across the organization. The significance of the structural dimension in this study resonates with the findings of (Jalili et al., 2020), who demonstrated that process maturity and integration are decisive factors in enabling sports organizations to adapt to customer needs and market dynamics.

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Branding's prominence as the top component reflects the increasingly strategic role of brand equity in sports marketing and consumer loyalty. Consistent with the findings of (Badri Azarin et al., 2023) and (Moharramzadeh et al., 2023), strong brand positioning not only differentiates sports organizations from competitors but also reinforces customer trust, thereby enhancing loyalty and willingness to repurchase. In sports contexts, brand experiences are often tied to emotional connections, community engagement, and perceived value—factors that (Akoglu & Özbek, 2022) identified as mediating the relationship between service quality and brand loyalty. The present results also echo (Bonfanti et al., 2023), who highlighted that integrating physical and digital branding experiences can significantly enrich customer satisfaction in sports retail settings.

The finding that "creativity and innovation in the production of goods and provision of services" ranks second in importance points to the necessity for sports organizations to continually refresh their offerings to maintain relevance in competitive markets. Innovation, whether in product design, service delivery, or customer engagement strategies, has been repeatedly cited as a driver of customer satisfaction and retention (Bastami et al., 2023; Stacho et al., 2019). In the context of CRM, innovation enables personalization and responsiveness, allowing organizations to adapt offerings to evolving customer preferences (Ng, 2024). This finding is also supported by (Nazari et al., 2019), who identified managerial creativity as a determinant of effective CRM practices and their impact on customer loyalty in sports clubs.

The communicational dimension's strong weight underscores the critical role of interaction, feedback, and relationship-building in sports business reengineering. Components such as "designing special facilities or discounts for special customers" and "using sales methods in social networks" were prioritized within this dimension, reflecting the growing importance of targeted engagement strategies. Social media platforms, as noted by (Bahrami et al., 2022) and (Daneshfar et al., 2019), serve not only as marketing channels but also as spaces for fostering long-term relationships through direct communication and community building. These platforms allow for immediate customer feedback, which is invaluable for continuous process improvement (Jafari & Yaghoobi Jahromi, 2018).

Interestingly, the functional dimension, while ranked last among the three, still includes vital components such as "competitive pricing for products and services" and "expansion of branches and agencies." Competitive pricing remains an essential tactical element in attracting and retaining customers, especially in price-sensitive segments of the sports market (Farahani et al., 2024; Yazdani Dehnowi & Adeli, 2024). Moreover, the expansion of branches and agencies supports accessibility and market penetration, which can be particularly important in building physical touchpoints that complement online service channels (Alt et al., 2019). The relatively lower ranking of the functional dimension in this study may reflect the current shift in sports business priorities from purely operational factors toward more strategic branding and engagement activities.

The lowest-ranked component, "designing an attractive and unique environment for the organization/company," suggests that while physical aesthetics may enhance customer experience, they are perceived as secondary to functional performance and relationship management in driving business reengineering outcomes. This does not imply that environmental design is irrelevant; indeed, as (Bonfanti et al., 2023) notes, store design can contribute to memorable customer experiences. However, in resource-constrained environments, sports organizations may prioritize investments that have more direct and measurable impacts on customer loyalty and revenue generation.

The methodological approach of applying FAHP provided a nuanced understanding of priorities, allowing for the incorporation of expert judgment under conditions of uncertainty. This aligns with recommendations by (Rostamzadeh et al., 2021) for using structured decision-making tools in CRM-related strategy formulation. The high consistency ratios (CRg and CRm) indicate reliability in expert evaluations, reinforcing the credibility of the rankings produced. The integration of both

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qualitative and quantitative inputs also reflects best practices in mixed-method research for strategic decision-making (Heydari et al., 2021; Ng, 2024).

In relation to prior literature, the results of this study confirm that effective sports business reengineering is multidimensional, requiring the integration of structural, communicational, and functional strategies. The prominence of branding and innovation resonates with studies emphasizing the importance of creating unique value propositions in highly competitive markets (Akoglu & Özbek, 2022; Bastami et al., 2023; Moharramzadeh et al., 2023). Furthermore, the high ranking of communicational elements reflects the increasing reliance on digital platforms for CRM execution, as supported by (Bahrami et al., 2022; Daneshfar et al., 2019). The lower relative weight of functional factors suggests a paradigm shift from transactional to relational and experiential approaches in sports business strategies (Alt et al., 2019; Bonfanti et al., 2023).

This study, while comprehensive in its methodological approach, is not without limitations. First, the reliance on expert judgment in the FAHP process introduces subjectivity, even though consistency checks were applied. The selected experts, while experienced, were drawn from a specific subset of the sports marketing ecosystem, which may limit the generalizability of the results to other contexts or industries. Second, the cross-sectional nature of the research captures priorities at a single point in time and may not reflect changes in market dynamics, consumer behavior, or technological advancements over time. Third, while the study focused on sports organizations in a particular national context, cultural and economic differences could influence the relative importance of components in other regions. Finally, the study did not quantitatively measure the direct impact of each prioritized component on organizational performance, leaving room for further empirical validation.

Future research could build on this study by incorporating longitudinal designs to capture shifts in component priorities over time, especially in response to emerging technologies, economic fluctuations, or evolving consumer expectations. Expanding the sample to include a more diverse range of stakeholders—such as customers, suppliers, and non-marketing managers—would provide a more holistic perspective on business reengineering priorities. Comparative studies across different countries or regions could illuminate the role of cultural and institutional factors in shaping CRM-based reengineering strategies. Additionally, future work could employ structural equation modeling or other statistical techniques to empirically test the causal relationships between the prioritized components and organizational performance indicators such as customer loyalty, revenue growth, and market share.

For practitioners, the results highlight the need to prioritize structural reforms, particularly those that enhance brand positioning and foster innovation in product and service offerings. Sports organizations should invest in robust CRM systems that integrate customer data across touchpoints and support personalized engagement strategies. Branding initiatives should be aligned with customer expectations and reinforced through consistent messaging across both physical and digital platforms. Innovation should be embedded into organizational culture, encouraging staff at all levels to contribute ideas for product and service improvements. Communicational strategies, especially the use of social media and targeted customer programs, should be leveraged to build stronger relationships and gather actionable feedback. While functional elements such as competitive pricing and branch expansion remain relevant, they should be strategically aligned with broader branding and engagement goals to maximize overall impact.

## **Ethical Considerations**

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

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## **Conflict of Interest**

The authors report no conflict of interest.

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#### References

Ahmad, S., Khajasteh, A., & Alinajad, A. (2019). The Impact of Customer Relationship Management on the Productivity and Revisit Intentions of Customers in Sports Clubs of Kermanshah Province. *Contemporary Research in Sports Management*, 9(17), 109-120. https://faslname.msy.gov.ir

age | 1

- Akoglu, H. E., & Özbek, O. (2022). The effect of brand experiences on brand loyalty through perceived quality and brand trust: a study on sports consumers. *Asia Pacific Journal of Marketing and Logistics*, 34(10), 2130-2148. https://doi.org/10.1108/APJML-05-2021-0333
- Alt, R., Demirkan, H., Ehmke, J. F., Moen, A., & Winter, A. (2019). Smart services, The move to customer orientation. *Journal of Electronic Markets*, 29, 1-6. https://doi.org/10.1007/s12525-019-00338-x
- Badri Azarin, Y., Abdolzadeh, V., & Abdolzadeh, V. (2023). The impact of customer relationship management on customer satisfaction and loyalty among visitors to educational sports facilities in Tabriz. *Proceedings of the First Sports Science Conference on Public Sports*. https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://civilica.com/doc/1687787/&ved=2ahUKEwjo7Yrx8-GOAxUpkYkEHZMlGf4QFnoECBcQAQ&usg=AOvVaw3qapWLsJAUB0YeoQhyRVrp
- Bahrami, S., Karimi, A., & Rasekh, N. (2022). Developing a Paradigmatic Model of the Role of Advertising on Customer Willingness for Sports Products (With a Focus on Social Media). *Scientific Journal of Communication Management in Sports Media*, 9(3). https://ensani.ir/fa/article/533836/
- Bastami, H., Karimi, A., Hedayat Rasa, M., & Jahan, J. (2023). Designing the Development Model of Islamic Sports Marketing in Swimming Federation. *Dynamic Management and Business Analysis*, 2(3), 59-72. https://doi.org/10.22034/dmbaj.2024.2022990.1021
- Bonfanti, A., Vigolo, V., Vannucci, V., & Brunetti, F. (2023). Creating Memorable Shopping Experiences to Meet Phygital Customers' Needs: Evidence From Sporting Goods Stores. *International Journal of Retail & Distribution Management*, 51(13), 81-100. https://doi.org/10.1108/ijrdm-12-2021-0588
- Dalla, E., & Varelas, E. (2019). Regulations and oligopoly in banking, The role of banking cost structure. *Journal of Economics and Business*, 2(43), 121-124. https://doi.org/10.1016/j.jeconbus.2019.02.002
- Daneshfar, H., Radfar, R., & Heydarzadeh Henzaei, K. (2019). Proposing a Customer Relationship Management Model for Social Media-Based Businesses. Foresight Management (Management Research), 30(117), 101-120. https://www.sid.ir/paper/204119/en
- Fallah, M., Haqshenas Kashani, F., & Rezaiyan, A. (2020). Designing a Business Process Reengineering Model in the Iranian Banking Industry with Emphasis on Customer Orientation. *Scientific Journal of Modern Marketing Research*, 10(1), 17-38. https://ijnaa.semnan.ac.ir
- Farahani, A., Ghorbani Qahfarakhi, L., Qasemi, H., & Soleimani, M. (2024). Structural equation modeling of factors affecting the purchasing behavior of customers in online sports clothing stores. *Sports Management Studies*, 320. https://smrj.ssrc.ac.ir/article\_4493.html
- Gulati, R., Kattumuri, R., & Kumar, S. (2019). A non-parametric index of corporate governance in the banking industry. *Journal of Socio Economic Planning Sciences*, 4, 141-144. https://www.sciencedirect.com
- Harajchi, S., & Harajchi, S. (2020). A Review of Modern Approaches in Sports Management; Business Process Reengineering. Second International Congress on Engineering, Technology, and Innovation, Darmstadt University, Germany, https://cyberleninka.ru
- Heydari, S., Taheri Kia, F., & Eman Khan, N. (2021). Providing a Framework for Integrating Customer Knowledge Management and Customer Relationship Management in the Banking Industry. *Business Management*, 13(2), 572-608. https://jibm.ut.ac.ir
- Hosseini Nia, S. R., Bay, N., & Ghanbarpour Nasrati, A. (2020). The Role of Customer Relationship Management in Enhancing Customer Orientation among Staff of Sports and Youth Departments in Golestan Province. *Human Resources Management in Sports*, 7(2), 207-223. https://faslname.msy.gov.ir
- Jafari, S. M. B., & Yaghoobi Jahromi, Z. (2018). The Impact of Implementing Social Customer Relationship Management (SCRM) on Customer Relationship Performance. *Business Management Explorations*, 10(20), 115-134. https://www.sciencedirect.com
- Jalili, M., Hemati Nejad, M. A., & Naderi Nasab, M. (2020). Designing a Maturity Model for Business Process Management in Sports Manufacturing Companies. Strategic Studies in Sports and Youth, 19(49), 211-236. https://faslname.msy.gov.ir
- Law, C. C., Zhang, Y., & Gow, J. (2022). Airline service quality, customer satisfaction, and repurchase intention: Laotian air passengers' perspective. Case Studies on Transport Policy, 10(2), 741-750. https://doi.org/10.1016/j.cstp.2022.02.002
- Moharramzadeh, M., Sivan, M., Kiani, F., & Khavandi, H. (2023). Examining Brand Reputation's Role in Encouraging Customers to Choose Sports Product Brands in Ardabil. *New Approaches in Sports Management*, 10(37), 25-37.
- Nazari, R., Ghara, M. A., & Asadolahi, S. (2019). Proposing a Model for the Relationship between Managerial Creativity and Customer Relationship Management and its Role in Customer Loyalty in Sports Clubs. *Applied Research in Sports Management*, 7(4), 37-44. https://jast.uma.ac.ir/article 951.html
- Ng, K. S. P. (2024). How Customer Knowledge Management Helps Retain Fitness Club Members: A Mediating Effect of Relationship Quality. *International Journal of Sports Marketing and Sponsorship*, 25(2), 360-381. https://doi.org/10.1108/ijsms-07-2023-0136
- Rostamzadeh, R., Eskandari, K., & Orfai Jamshidi, S. (2021). Identification and prioritization of factors affecting the implementation of optimal customer relationship management in the General Directorate of Terminals Transportation. *Transportation Research Journal*, 18(1 (Serial 66)), 145-164. https://www.trijournal.ir/article 77151 0.html?lang=fa
- Soltani, H.-A., Heydarzadeh, C., Zablei, R. E., & Ahmadi Shireh Barq, S. (2023). The effect of service improvement strategies with the mediating role of forgiveness from the customer on the behavioral tendencies of customers of clubs in Tehran. *Journal of Sports Management*, 15(2), 149-167.
- Stacho, Z., Stachova, K., & Hudakova, M. (2019). Approach of companies to customers as suitable source of incentive to innovate. *Journal of Procedia Economics and Finance*, 34, 11-18. https://doi.org/10.1016/S2212-5671(15)01595-6

## DIGITAL TRANSFORMATION AND ADMINISTRATION INNOVATION

Teece, D. J. (2018). Business models and dynamic capabilities. *Journal of Long Range Planning*, 51, 40-49. https://doi.org/10.1016/j.lrp.2017.06.007

Yazdani Dehnowi, M., & Adeli, A. (2024). Comparing the purchasing behavior models of online and offline customers for sports goods. Information Technology and Sports. https://civilica.com/doc/2287219/

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