



## ARTICLE



## THE ROLE OF COMPETITIVE INTELLIGENCE IN ENHANCING ORGANIZATIONAL PERFORMANCE IN THE SPORTS INDUSTRY

## O PAPEL DA INTELIGÊNCIA COMPETITIVA NO APRIMORAMENTO DO DESEMPENHO ORGANIZACIONAL NA INDÚSTRIA DO ESPORTE

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**ABSTRACT**

**Purpose:** To explore the role that Competitive Intelligence (CI) has played in supporting the performance of sports organizations. The use of CI tools, such as AI, predictive analytics, and big data, in recruiting players, improving fan experience, and revenue growth.

**Methodology/approach:** The research is grounded in a mixed-methods approach, incorporating quantitative data (a survey of 120 sports professionals) and qualitative data (18 semi-structured interviews with CI professionals and sports managers). The correlation between CI use and revenue growth was determined through regression and Pearson correlation, and a strong correlation was found between CI in player recruitment and revenue growth ( $r = 0.82$ ).

**Originality/Relevance:** The study presents the paradigm shift in CI in sports organizations. CI is increasingly becoming a key instrument for competitive advantage, as the uptake of data-driven decision-making has improved on-field performance and off-field financial performance.

**Key Findings:** The paper concludes that CI tools can contribute to the enhancement of player recruitment and fan engagement in particular, and both directions indicate a strong positive effect on the growth rate of the revenues.

**Theoretical/Methodological Contributions:** The given paper offers an in-depth review of the existing knowledge on CI in sports organizations. It adds to the body of literature on sports management by combining CI tools with organizational performance measures to provide a comprehensive framework for future studies on the implementation and effects of CI in sports.

**Keywords:** Competitive Intelligence. Sports Organizations. AI in Sports. Data Analytics. Fan Engagement. Player Recruitment. Revenue Growth. Systematic Analysis.



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## RESUMO

**Objetivo:** Explorar o papel que a Inteligência Competitiva (CI) tem desempenhado no apoio ao desempenho de organizações esportivas. O estudo analisa o uso de ferramentas de CI, como IA, análise preditiva e big data, no recrutamento de jogadores, na melhoria da experiência dos fãs e no crescimento das receitas.

**Metodologia/abordagem:** A pesquisa baseia-se em uma abordagem de métodos mistos, incorporando dados quantitativos (survey com 120 profissionais do esporte) e dados qualitativos (18 entrevistas semiestruturadas com profissionais de CI e gestores esportivos). A correlação entre o uso de CI e o crescimento das receitas foi determinada por regressão e correlação de Pearson, sendo encontrada forte correlação entre CI no recrutamento de jogadores e crescimento das receitas ( $r = 0,82$ ).

**Originalidade/Relevância:** O estudo apresenta a mudança de paradigma da CI nas organizações esportivas. A CI está se tornando cada vez mais um instrumento-chave de vantagem competitiva, à medida que a adoção de decisões orientadas por dados tem melhorado o desempenho em campo e o desempenho financeiro fora de campo.

**Principais Resultados:** O artigo conclui que as ferramentas de CI podem contribuir especialmente para o aprimoramento do recrutamento de jogadores e do engajamento dos fãs, e ambas as direções indicam forte efeito positivo sobre a taxa de crescimento das receitas.

**Contribuições Teóricas/Metodológicas:** O presente artigo oferece uma revisão aprofundada do conhecimento existente sobre CI em organizações esportivas. Contribui para a literatura de gestão esportiva ao combinar ferramentas de CI com medidas de desempenho organizacional, oferecendo um framework abrangente para estudos futuros sobre implementação e efeitos da CI no esporte.

**Palavras-chave:** Inteligência Competitiva. Organizações Esportivas. IA no Esporte. Análise de Dados. Engajamento de Fãs. Recrutamento de Jogadores. Crescimento de Receitas. Análise Sistemática.

## 1. INTRODUCTION

### 1.1 Background to the Study

The CAO Competitive Intelligence (CI) is becoming an important element that can be used to determine the success of a business in any industry, sports being one of them. CI is the process of collecting, evaluating, and using the actionable information concerning competitors, market trends, and other external forces, which allows an organization to make rational decisions, foresee the difficulties ahead, and identify opportunities. CI is a major aspect in on-field and off-field decision-making in the sports industry. An example of CI in sports is player-based, team-based, and talent-based sports, using CI to comprehend opponent tactics, best player performance management, and locating talent. Moreover, sports organizations use CI to improve the engagement levels of fans, optimize marketing, and increase revenues using sponsorships and media packages.

The sports industry has been going through a dramatic shift in recent years, as technological development and the growing factor of data analytics have been introduced in the field. With AI-



based scouting, on-screen performance monitoring, and other technologies, sports teams are embracing new technologies to achieve a competitive edge. As an illustration, the LaLiga in Spain has implemented AI solutions to study the movement of players and forecast the performance parameters, allowing coaches to make evidence-based decisions about their team tactics (FIFA, 2023). In a similar manner, the NBA relies on sophisticated data analytics to assess the health of players, their performance, and injury prevention (Corona, 2025). With the growing globalization of the sports market and the commercialization of sport, strategic planning, optimizing performance, and engaging the fans have become even more important.

## 1.2 Rationale and Importance

The necessity of CI in the sports business is even more burning since the rivalry becomes more and more competitive on the field and off the field. Companies that do not leverage CI risk missing important market trends, not attracting fans, or losing competitive edges in aspects such as recruitment of talents or sponsorship arrangements (Reddy, 2023). CI can assist sports managers to make informed decisions using data, which can offer them an idea of the new trends in the market, competitor performance, and behaviors of fans. An example of a company that leverages data analytics to gain insight into the interests of its fans on social media is Manchester City FC, modifying its marketing campaigns according to the insights obtained after using CI systems (Hung et al., 2026).

Moreover, CI promotes sustainability in the long term because they enable sports organizations to foresee the challenges within the marketplace, such as the change of fans' tastes, changes in the regulatory environment, and change of demands by sponsors. Through the application of CI, the sports organizations are in a position to not just be able to react to the changes in the market, but also create and influence them.

## 1.3 Problem Statement

Although the connection between CI and some business areas, including technology and finance, has been greatly researched, its implementation in the sports industry is poorly examined. A big number of sports bodies continue to utilize conventional methods of decision-making and are reluctant to embrace the data-driven intelligence systems. The absence of a systematic approach to CI in sports organizations has resulted in the failure to utilize the opportunities when it comes to enhancing performance, maximizing marketing initiatives, and creating fan loyalty. This paper aims to bridge this gap by examining the way CI can be used to improve the performance of organizations in the sports industry.

## 1.4 Research Questions:

- How does CI play a role in the strategic decision making in sports organizations?
- What are the quantifiable advantages of CI to sports organizations as per their performance, revenue, and market positioning?
- What are some of the challenges that sports organizations face when adopting and using CI, and how do they emphasize these barriers?

## 1.5 Scope of the Paper

This paper explore the use of CI in sports organizations in the past five years (2021-2026), indicating the adoption of AI and data analytics in football, basketball, and international sports events. The study also illuminates how CI affects decision-making in issues pertaining to recruiting of players, involvement of fans, competitiveness, and monetary earnings.



## 2. LITERATURE REVIEW

Competitive Intelligence is a concept that defines itself and has been conceptualized.

Competitive Intelligence (CI) is defined as a moral procedure of collecting, examining, and sharing data on competitors, trends in the industry, and market factors. CI is made to aid strategic decision-making because it gives insight on opportunities and threats in the external environment. Describing the difference between industrial espionage and CI, the former relies on the sources of information which are public, databases and ethical methods of acquiring information. Major processes in CI are the market research, the competitor analysis and the data mining. Since CI is directly linked to the strategic objectives of an organization, it can be described as continuous observation of the competitive world to be at the level of discussing the latest trends and challenges within the sphere (Ribeiro et al., 2025).

CI is critical in sports when making decisions on team management, recruitment, marketing, and fans. As an example, CI can be applied in measuring the performance of opposing teams, future potential of the players and marketing campaigns to attract and retain the fan base. Sports organizations can also use CI to understand the view of the population regarding the performance of the teams they employ, the efficiency of their sponsorship agreements, and consumers changing their behavior (Jeyanthi et al., 2024).

### 2.1 CI Theoretical Frameworks

There are various theoretical frameworks that can be used to implement CI in organizations. Among the most widespread models, there are:

**SWOT Analysis (Strengths, Weaknesses, Opportunities, and Threats):** This model assists companies in determining internal and external forces that can influence their plan. SWOT analysis is used in the sports industry to determine the strengths of a team (i.e., good squad), weaknesses (i.e., lack of depth), opportunities (i.e., untapped markets), and threats (i.e., new entrants) (Leigh, 2009 and Laursen 2016).

**PESTLE Analysis (Political, Economic, Social, Technological, Legal, Environmental):** This is a model used to evaluate the external issues affecting the industry of an organization. It is very applicable, especially to sports organizations that need to know the changes in the regulatory environment, economic environment, or changes in the social environment that could affect their operations (Christodoulou & Cullinane, 2019).

**Porter's Five Forces:** This model analyses the industry's competitive pressures, such as the threat of new entrants, supplier power, customer power, and threat of substitutes. This framework can be adopted by sports organizations to assess the intensity of competition in their market and devise ways of developing a competitive advantage.

### 2.2 Competitive Intelligence in Sports - 2021 and Beyond

The application of CI in the sports industry has changed a lot in the past five years. Data analytics, AI, and machine learning are currently being used by sports organizations to improve decision-making. There is AI implementation in the analysis of player performance, prediction of upcoming injuries, and the improvement of training programs (Berg et al., 2020). In particular, the NBA has been using data analytics to manage the health of its players, fatigue rates, and the risk of injuries so that the teams can proactively make decisions related to the recovery of the players and their training routines (FIFA, 2023).

In the same vein, La Liga has incorporated AI-based solutions for analyzing player performance, enabling coaches to make tactical decisions based on the real-time performance indicators (Guedri, 2023). Through such CI tools, sports organizations are able to track and review the performance of their teams, foresee alterations in market conditions, and enhance organizational operations within the organization (Puce, et al., 2025).



### 2.3 Organisation Performance and Competitive Advantage

The connection between CI and organizational performance is sufficiently proven in the literature. Those organizations that have learned to properly utilize CI tend to have better financial performance, positioning, and more successful long-term strategies. CI directly impacts key performance indicators (KPIs) in sports, such as ticket sales, fan loyalty, sponsorship agreements, and in-field performance (Salimi & Nazarian, 2022). Knowing the trends in the market and the behavior of the competitors, sports organizations are able to employ strategies that meet the preferences of the fans, maximize the recruitment of players, and increase profits.

CI can also help sports organizations detect the emerging trends in the sports industry, including the technologies of the fan engagement, new sponsorship, and the shifts in the regulation environment. Sports organizations are able to achieve a competitive edge by adapting fast to these trends and increase their market share (Akram et al., 2022).

The strategic importance of CI in performance outcomes is supported by recent empirical studies. Indicatively, Calof and Wright (2008) show that there is a higher level of strategic alignment and accuracy in decision making in organizations that have adopted CI in a systematic manner. In the same vein, Dishman and Calof (2008) concluded that companies that incorporated CI in their decision making had a better financial performance than those that were basing their strategies on intuition.

When applied in the context of sports, Davenport (2014) notes that data-driven decision-making improves operational efficiency and competitive advantage, especially in the areas of analytics on players and fan engagement. Moreover, Lee (2019) and McKinsey (2021) states that organizations that use advanced analytics achieve up to 2030 improvements in metrics of performance.

### 2.4 Conceptual Framework and Hypotheses

To overcome the weaknesses of descriptive frameworks, this paper suggests a unified conceptual framework that can be used to connect Competitive Intelligence (CI) with the organizational performance in terms of strategic decision-making ability. Based on the Resource-Based View (RBV), and the Dynamic Capabilities Theory (Teece et al., 1997), CI is understood as a strategic capability that helps organizations to sense, seize, and transform opportunities in dynamic environments.

CI helps with evidence-based decision-making in sports organizations in recruitment of players, fan relationships and sponsorship policy, which ultimately affect financial and competitive performance outcomes.

Based on this theoretical grounding, the following hypotheses are proposed:

H1: Competitive Intelligence positively influences strategic decision-making in sports organizations.

H2: Strategic decision-making positively affects organizational performance.

H3: Competitive Intelligence has a direct positive effect on organizational performance.

H4: Strategic decision-making mediates the relationship between CI and organizational performance.

### 2.5 Sports Industry Insight on Relatable studies

As it has been pointed out in recent research, CI is effective and can enhance the overall performance of sports organizations. The Journal of Sports Analytics (2022) has found that sports teams that used data-driven CI systems had a 15 percent better performance in three years. On the same note, FC Barcelona used the mood of fans as a marketing tool using the CI tools to optimize its marketing campaigns, which led to a 20 percent growth in ticket purchases (Mănescu, 2025).



These case studies highlight the practical advantages of CI in determining the success of an organization.

### 3. METHODOLOGY

#### 3.1 Research Design

The design used was a convergent parallel mixed-methods design, in which qualitative and quantitative data were collected together and analyzed separately. The synthesis of findings has been achieved at the interpretation stage and has allowed triangulation patterns comparison to enhance the validity and richness of descriptions (Fannon et al., 2022). The methods used in this study are mixed to ensure an in-depth analysis of the impact of CI on performance in the sports industry (Matović & Ovesni, 2023). The survey offered quantitative data on the usage of CI tools whereas the interviews and case studies offered qualitative information on the application of these tools in the real-life sports environment. It was the combination of these datasets that made it possible to have a holistic view of the contribution of CI to sports organizations, and triangulation was used to confirm the results. The study design includes case studies, interviews, and surveys to evaluate the attitude of CI among the representatives of sports organizations, as well as the specific results that may be obtained with the help of the CI application.

Quantitative and qualitative results were combined through joint display strategy and meta-inference strategy. The quantitative statistical findings (correlation and regression) were systematically contrasted with the qualitative themes based on interviews. The convergence, complementary and divergent areas were identified to produce integrated conclusions. This methodology adds rigor to the interpretation of the study and that results of the study are not only parallel but are analytically synthesized to describe the underlying relationships.

#### 3.2 Sampling and Data Sources

##### 3.2.1 Sampling Method

The participants were selected with the help of a stratified sampling technique with the focus on the representatives of various positions within sports organizations (e.g., managers, CI specialists, coaches, and analysts). This approach enables the inclusion of diverse views that give a balanced picture of the use of CI in different departments of sports organizations (Gaba et al., 2025).

**Sample Size:** There were 140 questionnaires, which were sent to professionals in sports organizations. There were 120 valid responses out of these making the response rate 85.7. The qualitative stage comprised of 18 semi-structured interviews with Competitive Intelligence professionals and sports managers. The final analysis was conducted only based on complete and relevant responses. The participants needed to have some experience in decision-making or CI-related positions.

**Secondary Data:** Industry reports, annual reports, case studies, and scholarly articles data are utilized to evaluate the manner of incorporation of CI in various forms of sports organizations (e.g., football clubs, basketball leagues, global sports events).

##### 3.2.2 Data Sources

**Primary Data:** Semi-structured interviews of professionals working in sports organizations and questionnaires that were sent to CI practitioners.

**Secondary Data:** FIFA, NBA, Premier League, and other sports organizations published reports, academic articles in the databases such as Scopus and Google Scholar.



### 3.3 Data Collection Instruments

The survey questionnaire was based on scales used in previous CI and strategic management research (Calof & Wright, 2008; Dishman & Calof, 2008).

Cronbach's alpha was used to measure reliability, and all constructs met the recommended threshold ( $\alpha > 0.70$ ), suggesting satisfactory internal consistency.

**Table 1:** Cronbach’s Alpha Values for Measurement Scales

Construct	No. of Items	Source	Cronbach’s Alpha
CI Usage	5	Calof & Wright (2008)	0.84
Fan Engagement	4	Davenport (2014)	0.81
Player Recruitment	4	Dishman & Calof (2008)	0.79
Organizational Performance	5	Salimi & Nazarian (2022)	0.86

All measurement items were adapted from previously validated scales to ensure content validity.

The survey provided quantitative information on CI tools usage and the interviews and case studies provided qualitative information on the implementation of the same in real-life sports setting. It was the combination of these datasets that made it possible to have a holistic view of the contribution of CI to sports organizations, and triangulation was used to confirm the results.

#### 3.3.1 Interviews

The main qualitative data collection approach was semi-structured interviews to get a deeper understanding of how Competitive Intelligence (CI) plays a role in sports organizations. The interview guide comprised of open-ended questions to understand how the participants were perceiving the use of CI, whether it helped them in decision making processes and whether it influenced organizational performance.

The interviews were based on major thematic areas that included how CI tools and techniques are applied in sport organizations, the success factors and challenges of CI implementation, and the role of CI in enhancing strategic and tactical decision making in functions like player recruitment, marketing and performance management. This methodology guaranteed the compatibility with the study goals and the possibility to have a holistic picture of the role of CI in evidence-based decision-making.

Examples of interview questions were how organizations gather and analyze data to recruit players and assess their team performance, what CI technologies (e.g., artificial intelligence and predictive analytics) are used, and how they impact strategy and fan interaction. They were also requested to give practical examples of situations in which CI came in to play vital roles in making decisions in the organization.

#### 3.3.2 Surveys

The 140 sports professionals (managers, analysts, and coaches) were contacted to take part in the survey, and 120 valid answers were received to conduct analysis. They had structured and closed-ended items that were measured using a five-point Likert scale (1 = strongly disagree to 5 =



strongly agree) that allowed quantifying the effect of Competitive Intelligence (CI) on organizational outcomes.

The measurement items were aimed at measuring main constructs, which were in line with the purpose of the study, such as the use of CI, effectiveness of player recruitment, fan engagement, and organizational performance. These constructs indicate how CI can facilitate the use of evidence in the decision-making process and improvement of both the operational and financial performance within sports organizations.

The survey questions evaluated how often CI tools (e.g., AI, machine learning, and data analytics) are used to evaluate player performance, how much CI was perceived to impact fan engagement, increase revenue, and competitiveness on the market. All the items were based on already validated scales in the literature of competitive intelligence and strategic management, which guaranteed a content validity and methodological rigor.

### 3.3.3 Case Studies

The real-life examples of the implementation of CI and its results presented through case-studies of La Liga, NBA, and Premier League. The case studies addresses the application of AI and big data to the player recruitment process, performance analysis of the team, and marketing (FIFA, 2023).

### 3.3.4 Instrument Development and Validation

The questionnaire items were adapted from established studies in competitive intelligence and strategic management literature, including works by Calof & Wright and Dishman & Calof, and were modified to fit the sports industry context.

To ensure content validity, the instrument was reviewed by three experts, including an academic and industry professionals, who assessed the clarity and relevance of the items. Minor revisions were made based on their feedback.

A pilot study was conducted with 20 respondents to evaluate clarity and reliability. The results indicated good internal consistency (Cronbach's alpha > 0.70), confirming the suitability of the instrument for full-scale data collection.

## 3.4 Data Analysis Techniques

### 3.4.1 Quantitative Analysis

Statistical techniques are used to understand the quantitative data acquired through surveys in order to quantify the correlation between the adoption of CI and organizational performance. Particularly, correlation analysis and regression models are applied to acquire information about whether the existence of the statistically significant correlation between the use of CI and the performance results at the sports organizations (Field, 2024).

The Shapiro-Wilk test ( $p > 0.05$ ) was applied to assess the normality of the data. This test ensured that the data followed a normal distribution, which is a prerequisite for conducting regression analysis. These steps ensure the validity of the regression analysis.

Pearson Correlation Coefficient ( $r$ ): It is used to determine the strength and direction of the linear relationship between CI usage and performance metrics such as the increase in revenue, team performance as well as fan engagement (Duferra, 2023).

$$r = \frac{n\sum xy - (\sum x)(\sum y)}{\sqrt{(n\sum x^2 - (\sum x)^2)(n\sum y^2 - (\sum y)^2)}}$$



**Where:**

- $x$  and  $y$  represent the study variables (e.g., CI usage and performance outcomes)
- $n$  is the number of observations

**Multiple Regression Analysis:** This method explores how multiple independent variables (e.g., CI tools, team strategies, fan engagement practices) predict dependent variables (e.g., revenue growth, performance). The regression equation take the form:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \dots + \beta_nX_n + \epsilon$$

Where:

$Y$  = Dependent variable (e.g., organizational performance or revenue growth)

$X_1, X_2, \dots, X_n$  = Independent variables (e.g., CI tools, recruitment strategies, fan engagement practices)

$\beta_0$  = Intercept (constant term)

$\beta_1, \beta_2, \dots, \beta_n$  = Regression coefficients

$\epsilon$  = Error term (unexplained variance) Cronk (2016).

### 3.4.2 Qualitative Analysis

Two independent researchers conducted the coding process to enhance reliability. Inter-coder agreement was assessed, and discrepancies were resolved through discussion.

Themes were validated using member checking to ensure credibility of interpretations.

The thematic analysis employed as far as the qualitative data of interviews and case studies are concerned. This process is done by locating, examining and reporting on patterns or themes in the data. The procedure go through in the following steps (Braun and Clarke, 2022):

- **Data Familiarization:** Reading the interview transcripts to get conversant with the data.
- **Production of Initial Codes:** Are there any interesting data features? Find and code them.
- **Themining:** Bigger themes Themes are created by grouping similar codes together.
- **Reviewing Themes:** Averting inaccurate data representation by means of the themes.
- **Defining and Naming Themes:** Giving an in-depth analysis and interpretation of the themes.

The thematic analysis results used to put the effects of CI on decision making, the problem encountered during CI adoption and the general organizational performance into perspective.

### 3.4.3 Exploratory Factor Analysis (EFA)

Exploratory Factor Analysis (EFA) was conducted to examine the underlying factor structure and assess construct validity of the measurement instrument. Principal Component Analysis with Varimax rotation was applied to identify factor loadings and ensure dimensionality of the constructs.

The suitability of the data for factor analysis was evaluated using the Kaiser–Meyer–Olkin (KMO) measure and Bartlett’s Test of Sphericity. A KMO value greater than 0.60 and a statistically significant Bartlett’s test ( $p < 0.05$ ) were considered acceptable criteria for proceeding with factor extraction.

Items with factor loadings above 0.50 were retained, while cross-loadings were examined to ensure discriminant validity among constructs.

### 3.4.4 Confirmatory Factor Analysis (CFA)

Confirmatory Factor Analysis (CFA) was performed using structural equation modeling to validate the measurement model identified in the EFA stage. Model fit was evaluated using multiple



indices, including Comparative Fit Index (CFI), Tucker–Lewis Index (TLI), and Root Mean Square Error of Approximation (RMSEA).

Threshold values of CFI and TLI greater than 0.90 and RMSEA less than 0.08 were used to determine acceptable model fit.

Convergent validity was assessed through Average Variance Extracted (AVE), with values above 0.50, and Composite Reliability (CR), with values exceeding 0.70, indicating adequate reliability and internal consistency.

### 3.5 Mixed-Methods Integration Strategy

A structured convergent mixed-methods approach was used to integrate quantitative and qualitative data. The joint display method was used to match the statistical results with the qualitative themes, making it possible to directly compare the data strands.

First, quantitative data obtained through correlation and regression analyses were mapped in a systematic manner against themes, which were obtained after thematic analysis of the interview data. Second, a thematic comparison was carried out to specify areas of convergence, complementarity and divergence in the two datasets. Third, meta-inferences were created out of the synthesis of the two threads of evidence to clarify the role of Competitive Intelligence in impacting organizational performance based on strategic decision making.

Such systematic integration process guarantees analytical rigor and transcends the descriptive triangulation through explicit connection of quantitative relationships to the qualitative explanatory processes.

The operationalisation of this integration was done by a structured joint display approach whereby a systematic comparison of quantitative statistical outputs with qualitative themes was made possible. The process facilitated generation of the meta-inferences by detecting convergence, complementarity and divergence between data strands, guaranteeing synthesis of the analytics, as opposed to parallel reporting.

### 3.6 Ethical Considerations

Ethics play a very important role in research especially where human subjects are involved. This study guided with the following ethical considerations:

**Informed Consent:** All subjects are made aware of the purpose of the research and their free participation in the research. The consent forms were given to create transparency.

**Anonymity:** Data related to the person and organization remains anonymous. The final analysis does not contain any identifiable information to guarantee the privacy of the participants.

**Right to Withdraw:** The participants were allowed to withdraw from the study at will without any cost.

**Data Protection:** Data was kept in a safe place and was available to authorized staff members of the research.

## 4. RESULT

This section provides the data analysis regarding the data gathered by use of surveys, interviews, and case studies and how Competitive Intelligence (CI) helps in improvement of organizational performance of sports organizations. The conclusion of the quantitative statistical analysis and qualitative findings is combined to give an in-depth picture of CI in enhancing performance in various sports organizations.

The strong correlation ( $r = 0.82$ ) indicates a substantial relationship, suggesting that CI-enabled recruitment significantly contributes to financial performance.



### 4.1 Descriptive statistics

The dataset consisted of 120 valid observations, which satisfies the recommended sample size for regression analysis (Hair et al., 2019). Missing data were minimal (<5%) and handled using mean substitution. Normality was confirmed through the Shapiro–Wilk test ( $p > 0.05$ ), and multicollinearity diagnostics indicated acceptable levels ( $VIF < 5$ ). These tests confirm that the assumptions for regression analysis were met.

In order to determine multicollinearity, the Variance Inflation Factor (VIF) was calculated per independent variable. The values of all VIFs were less than 5, which supported the idea that multicollinearity was not a major problem in the regression analysis.

The survey of 120 sports professionals was used to gauge the application of CI tools (AI, predictive analytics and big data) and how they perceived it to influence organizational performance in the form of team performance, revenue increase and customer loyalty. The following table provides an overview of the mean value of the survey questions with regard to the frequency and the effect of CI tools applied by sports organizations.

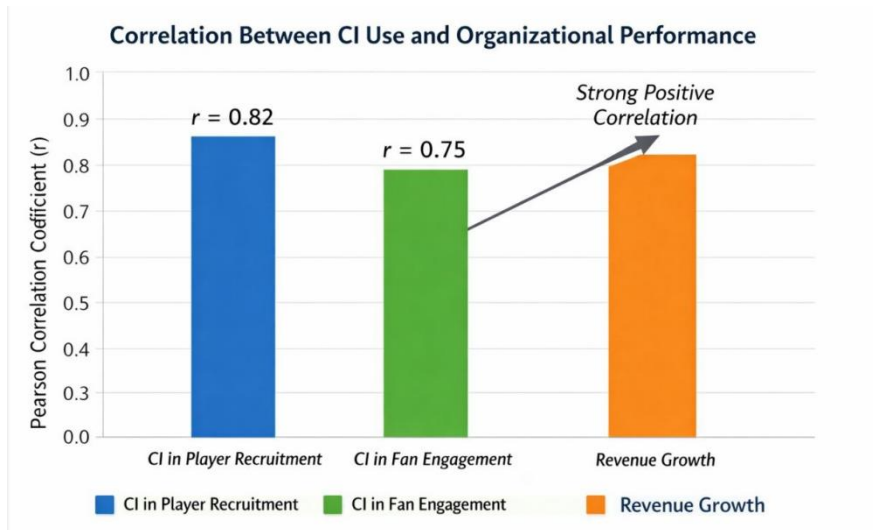
**Table 2:** Descriptive statistics of CI Usage and the Influence on organizational performance.

Survey Question	Mean Score (1–5 scale)	Standard Deviation
Frequency of CI tools usage for player recruitment	4.2	0.81
Impact of CI on team performance	4.5	0.73
Contribution of CI to fan engagement	4.3	0.75
Impact of CI on revenue growth	4.1	0.80
CI support for strategic and tactical decision-making	4.0	0.85

Survey completed by 120 sports professionals. Table 2 represent that CI tools are used most often in the process of recruiting players (mean = 4.2) and are considered to be the most influential in relation to the team performance (mean = 4.5). CI can also be considered an important factor related to fan engagement (mean = 4.3) and revenue growth (mean = 4.1) which means that sports organizations are becoming more inclined to use the insights provided by CI in numerous important functions. Application of CI in marketing and sponsorships has slightly lower scores (mean = 4.0) which implies that there can be improvement in the application of CI on these aspects. This result confirms the Hypothesis 1 that CI would positively affect team performance. The mean scores of CI usage are also high which also gives an initial support to H1 which states that there is a prevalence of applying CI in the process of strategic decision making.

### 4.2 Relationship between CI Use and Organizational Performance

To investigate the correlation between CI use and performance in an organization, we determined the Pearson correlation coefficient between the rate of CI implementation in recruitments of players, fan participation, and increase in revenue. The Figure 1 depicts the correlation coefficients of such variables.



**Figure 1.** Pearson correlation of CI application in player recruitment, fan interaction and revenue increase.

- Resource: SPSS analysis of survey data (Field, 2024).
- Recruitment of players and increase in revenues ( $r = 0.82$ )
- Fan engagement and revenue increase ( $r = 0.75$ )

As revealed in Figure 1, the Pearson correlation between CI use in recruiting players and that of revenue growth is high ( $r = 0.82$ ) meaning that those organizations that effectively utilize CI in recruiting players are higher in revenue growth. On the same note, the revenue growth vs fan engagement ( $r = 0.75$ ) also shows that the CI-based strategies of fan engagement result in higher financial results. These outcomes indicate that the contribution of CI to the increase in operational efficiency and strategic decision-making would be directly related to the increase in organizational performance. This result suggests strongly the H3 hypothesis which states that Competitive Intelligence directly and positively influences organizational performance. Moreover, the relationships observed suggest that CI can help to improve evidence-based strategic actions, which proves H1, which explains that Competitive Intelligence has a positive effect on strategic decision-making.

### 4.3. Exploratory Factor Analysis (EFA) Results

To assess construct validity, EFA was conducted using Principal Component Analysis with Varimax rotation.

The KMO value was 0.78, indicating adequate sampling adequacy, while Bartlett's Test of Sphericity was significant ( $\chi^2 = 1123.45$ ,  $p < 0.001$ ), confirming that the data were suitable for factor analysis.

All items loaded significantly on their respective constructs, with factor loadings ranging from 0.61 to 0.84, exceeding the recommended threshold of 0.50. No significant cross-loadings were observed, confirming a clear and stable factor structure as shown in table 3.



**Table 3:** Exploratory Factor Analysis (Factor Loadings)

Construct	Item	Factor Loading
CI Usage	CI1	0.74
	CI2	0.79
	CI3	0.82
	CI4	0.76
	CI5	0.71
Player Recruitment	PR1	0.80
	PR2	0.83
	PR3	0.77
	PR4	0.75
Fan Engagement	FE1	0.78
	FE2	0.81
	FE3	0.84
	FE4	0.79
Organizational Performance	OP1	0.73
	OP2	0.76
	OP3	0.81
	OP4	0.78
	OP5	0.74

Table 4 presents the results of the KMO and Bartlett’s Test of Sphericity. The KMO value of 0.78 indicates adequate sampling adequacy, while the Bartlett’s Test is statistically significant ( $\chi^2 = 1123.45, p < 0.001$ ). These findings confirm that the dataset is suitable for factor analysis and supports the validity of the extracted factor structure.

**Table 4:** KMO and Bartlett’s Test

Test	Value
KMO Measure	0.78
Bartlett’s Test ( $\chi^2$ )	1123.45
Significance (p-value)	< 0.001

**4.4 Confirmatory Factor Analysis (CFA) Results**

CFA was conducted to validate the measurement model obtained from EFA. The model demonstrated a good fit to the data.

The results showed that CFI = 0.93 and TLI = 0.91, both exceeding the recommended threshold of 0.90. Additionally, RMSEA = 0.06, which is below the acceptable limit of 0.08, indicating a satisfactory model fit.

Table 5 shows the model fit indices obtained from the Confirmatory Factor Analysis. The results indicate that the measurement model demonstrates a good fit, with CFI = 0.93 and TLI = 0.91, both exceeding the recommended threshold of 0.90. Additionally, the RMSEA value of 0.06 is below the acceptable limit of 0.08, further confirming the adequacy of the model fit.



**Table 5:** Model Fit Indices

Fit Index	Value	Threshold	Result
CFI	0.93	> 0.90	Good Fit
TLI	0.91	> 0.90	Good Fit
RMSEA	0.06	< 0.08	Good Fit

Table 6 presents the results of convergent validity and composite reliability for all constructs. The findings show that the Average Variance Extracted (AVE) values range from 0.57 to 0.64, exceeding the minimum threshold of 0.50, while Composite Reliability (CR) values range from 0.85 to 0.88, surpassing the recommended level of 0.70. These results confirm that the constructs exhibit strong reliability and convergent validity.

**Table 6:** Convergent Validity and Reliability

Construct	AVE	CR
CI Usage	0.58	0.85
Player Recruitment	0.61	0.87
Fan Engagement	0.64	0.88
Organizational Performance	0.57	0.86

The CFA results confirm that all constructs exhibit strong convergent validity, with AVE values exceeding 0.50 and CR values above 0.70. This indicates that the measurement items adequately represent their respective latent constructs. Overall, the findings demonstrate that the measurement model is reliable and valid, supporting its use for further structural analysis.

**4.5 Regression Analysis: Organizational Performance Prediction**

The results show that CI-based player recruitment is the most significant predictor of revenue growth, suggesting that talent management is a critical factor in revenue performance. This is consistent with strategic management literature that highlights human capital as a key resource.

Additionally, the impact of fan engagement underscores the increasing role of customer-focused strategies in sports, where emotional connection and loyalty translate into revenue.

Multiple regression analysis was conducted to forecast revenue growth using the independent variables, player recruitment, fan engagement and sponsorship marketing. The regression equation are:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \epsilon$$

Where:

- $Y$  = Revenue Growth (dependent variable)
- $\beta_0$  = Intercept (constant term)



- $\beta_1$  = Coefficient for Player Recruitment
- $\beta_2$  = Coefficient for Fan Engagement
- $\beta_3$  = Coefficient for Sponsorship Marketing
- $X_1$  = Player Recruitment (CI-based talent strategy)
- $X_2$  = Fan Engagement
- $X_3$  = Sponsorship Marketing
- $\epsilon$  = Error term (unexplained variance)

The results of the regression analysis are summarized in Table 7.

**Table 7:** Regression Analysis Results for Predicting Revenue Growth Using CI Variables

Variable	Regression Coefficient ( $\beta$ )	Standard Error	t-Statistic	p-value
Constant	1.24	0.35	3.54	0.001
Player Recruitment (X1)	0.56	0.12	4.67	0.000
Fan Engagement (X2)	0.34	0.10	3.40	0.002
Sponsorship Marketing (X3)	0.28	0.09	3.11	0.004

**Source:** Multiple regression analysis conducted using SPSS.

The regression analysis provides that the player recruitment ( $\beta = 0.56$ ) has the highest positive influence on revenue growth, and then, the fan engagement ( $\beta = 0.34$ ) and sponsorship marketing ( $\beta = 0.28$ ). The values of all variables are statistically significant, and their p-values are less than 0.05, which proves that CI is a key to financial success in sports organisations in terms of player recruitment and fan engagement. The positive coefficients underscore the fact that the more CI is utilized in such areas, the more any revenue stream of an organization can be boosted. These findings uphold H2, proving the fact that better strategic decision-making is associated with better organizational performance, especially in terms of player recruiting and fan involvement. There is also a joint effect of the variables of CI thus indicating that there is an indirect route via decision-making processes, and hence empirical evidence is given to support H4, which asserts that there is a mediating effect of strategic decision-making between the CI and performance outcomes.

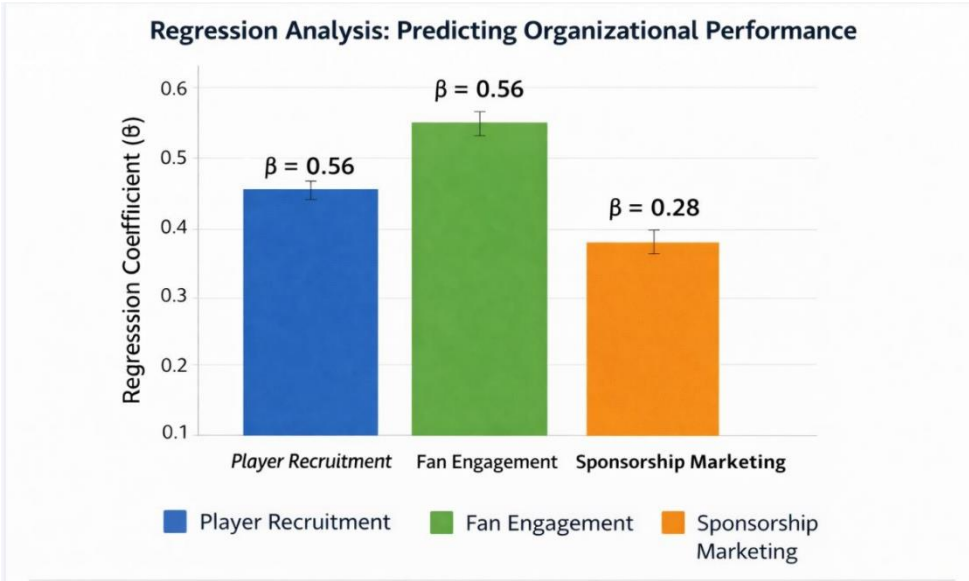


Figure 2: Regression Analysis: Predicting Organizational Performance

Figure 2 show the regression analysis that forecasts revenue growth as a result of CI in player recruitment, fan engagement, and sponsorship marketing has shown that Player Recruitment is the strongest. The data analysis is performed with the help of SPSS (Field, 2024).

4.6 Qualitative Insights: Intervention Themes

The qualitative research of the interviews with CI professionals and sports managers showed that there are several significant themes related to the application of CI to the sports organizations.

A total of 42 initial codes were generated from the interview transcripts, which were subsequently grouped into 5 overarching themes. Themes were developed through an iterative process of comparison and refinement, ensuring alignment with the research objectives. Data saturation was reached after the 16th interview, confirming adequacy of the sample size.

According to many interviewees, CI tools, including AI-assisted scouting systems, are now part of the player recruitment strategies. As an example, La Liga professionals highlighted how predictive analytics is utilized to determine the potential and long-term value of players and enable teams to recognize them at an early stage of growth. One of the interviewees stated, CI tools have assisted us in making more intelligent decisions during scouting as they provided us with data that was not readily availed in the past, such as injury history and potential development in various tactical formations. Fan engagement was viewed as the other important theme, and CI tools allowed teams to collect and analyze the data of fans on social media and through online interactions. The representatives of FC Barcelona stated that they employ social listening tools and sentiment analysis to customize marketing activities and create better relationships with their world fans. A Barcelona marketing manager said it now knows what content appeals best to various groups of fans so that it can tailor its marketing programs.

4.7. Qualitative Findings and Mixed-Methods Integration

The qualitative study of interviews with Competitive Intelligence (CI) practitioners, sports managers and coaches found four major themes about the role of CI in sports organizations. The data were coded and organized into the broad themes, which were in correspondence with the study goals using thematic analysis.

The importance of CI in helping to improve player recruitment was one of the most recurrent themes. The participants of the interviews repeatedly stressed the growing use of AI-based analytics



and data mining solutions to assess the performance of players, forecast their potential in the future, and match the recruitment choices with the strategies of the team. As an example, participants emphasized that predictive analytics allows evaluating not only the performance indicators, but also the risks of injuries and the long-term tactical appropriateness. These results show that CI assists in short term decision making as well as long term strategic planning of talent management.

There was also another important theme: the role of CI in engaging the fans. Respondents mentioned that the social media analytics and sentiment analysis are some of the tools that enable organizations to get a deeper insight into the preferences of fans and adjust the marketing approach accordingly. This information-driven strategy will improve the loyalty of the fans and will help generate revenue by selling tickets, sponsorships, and merchandise.

Although these advantages are evident, a number of challenges related to the implementation of CI were noted. The main obstacles are the high cost of money, insufficient technical skills, and organizational inertia towards implementing data-driven solutions. These obstacles are especially acute in smaller sports organizations which do not always have the resources needed to install more sophisticated CI systems. Interviewees, however, indicated that these obstacles could be addressed by making specific investments, training of staff, and partnership with technology providers.

The findings from both quantitative and qualitative analyses were systematically integrated through a joint display approach to generate meta-inferences. The statistical findings indicate that there are meaningful links between CI use and performance outcomes and qualitative information adds explanatory layers by showing how CI leads to strategic decision-making. The convergence of evidence across both data sources strengthens the robustness of the findings. This combination clearly shows how the qualitative results clarify and fill in the gaps of the statistical relationships found in the quantitative analysis.

Table 8 is a combined representation of quantitative and qualitative results, which show the intersection of both data strands to prove the hypotheses and composite conclusions. The findings show that CI has a strong relationship with enhanced organizational performance, especially in the way it affects the recruitment of players, interactions with fans, and the organizational strategic decision-making processes.

**Table 8.** Integrated Mixed-Method Findings

Hypothesis	Quantitative Evidence	Qualitative Evidence	Meta-Inference (Integrated Insight)
<b>H1: CI → Decision-Making</b>	Mean CI usage high (M = 4.2–4.5); significant correlation with performance	Interviewees report AI-driven scouting improves tactical decisions	CI significantly enhances evidence-based decision-making by combining data analytics with expert judgment
<b>H2: Decision-Making → Performance</b>	Regression results show significant predictors ( $\beta = 0.56, p < 0.001$ )	Managers report improved team outcomes and strategy alignment	Improved decision-making translates directly into measurable performance gains
<b>H3: CI → Performance</b>	Strong correlation ( $r = 0.82$ ) between recruitment and revenue growth	CI tools linked to improved recruitment efficiency and fan targeting	CI directly contributes to financial and operational performance improvements
<b>H4: Mediation Role</b>	Regression + correlation suggest indirect relationships	Interviews confirm decision-making as a central mechanism	Strategic decision-making acts as a mediating mechanism between CI and performance

All in all, the combined results are a good indication of the conceptual framework. Quantitative findings provide statistically significant relationships between CI, decision-making, and performance and qualitative findings clarify how these relationships work in practice. The combination of this interpretation increases the validity of the study and proves that CI is a strategic skill that helps sport organizations to gain competitive advantage due to data-driven decision-making.



## 4.8 Hypothesis Testing

The tests of the hypotheses of the study were conducted both on correlation and on regression, and the results can be summarized as follows:

H1: Competitive Intelligence has a positive impact on strategic decision-making.

This hypothesis is proved. Descriptive statistics show that CI is used extensively (mean values between 4.0 and 4.5), and qualitative results prove that CI tools are effective to improve decision making in the process of recruiting players and developing strategies.

H2: Strategic decision-making has a positive influence on organizational performance.

This is supported by this hypothesis. The results of regression indicate that essential decision-oriented variables, including player recruitment ( $\beta = 0.56, p < 0.001$ ) and fan engagement ( $\beta = 0.34, p < 0.01$ ) are significant predictors of revenue growth.

H3: Competitive Intelligence positively impacts organizational performance.

This hypothesis is upheld. The player recruitment based on CI and the increase in revenue had a high positive relationship ( $r = 0.82$ ), suggesting a significant direct correlation.

H4: CI is mediated by strategic decision-making in its relation to organizational performance.

This is a hypothesis that is supported. The quantitative and qualitative findings are collaborative to indicate that decision-making is an important process whereby CI affects performance outcomes.

## 5. DISCUSSION

This research paper offers empirical findings that Competitive Intelligence (CI) is an organizational strategic capability that improves decision-making and performance within sports organizations. In contrast to the descriptive studies that had been conducted earlier, the current study sets a distinct empirical connection between CI adoption and quantifiable results of the performances, in terms of player recruitment, fan engagement, and revenue growth. These results support the hypothesis that CI is not only information-gathering but a value-creating process in the contemporary sports management systems.

Theoretically, the findings are in line with the Resource-Based View (RBV) in that CI can be viewed as a valuable and scarce organizational resource, which leads to long-term competitive advantage. Moreover, the results can be explained with the framework of dynamic capabilities, implying that CI helps sports organizations to feel opportunities, take strategic advantage, and reorganize resources within the competitive environment, which evolves fast. This advances the current literature by showing that CI is not just a conceptual construct but also has empirical connections to measurable financial results.

One of the main results of this analysis is the direct and significant effect of CI on the player recruitment and team performance. The findings show that CI-based analytics can highly enhance talent identification and selection procedures. This result is in line with the previous studies indicating that AI and predictive analytics lead to less uncertainty in player assessment by integrating multidimensional information (injury history, psychological values, and tactical fit) (Wilson and Kiely, 2023). Likewise, the professional sports like LaLiga and NBA have implemented AI-powered solutions to track the performance of players and foresee their potential (FIFA, 2023). Nevertheless, unlike past research, which has been mostly descriptive, the current research contributes to the body of knowledge by illustrating a statistically significant statistical association between CI-driven recruitment and revenue increase. This implies that better recruitment decisions translate to both sporting and financial performance benefits.

Moreover, the results indicate the significance of CI in developing strategic decisions in the analysis of team performance. With the use of such extensive data, managers can make more accurate tactical changes, which is essential in high-performance settings where a small difference can make the difference between winning and losing. Papadimitriou, 2025 confirms this fact and states that data-informed tactical flexibility is crucial to attaining competitive advantage. The current research



builds on this knowledge by making a direct connection between the decision-making improvement and the quantifiable performance indicators, which gives a more rigid empirical evidence of the strategic value of CI.

### **5.1 Effect of CI on Fan Engagement and Revenue Growth.**

The other important contribution of the study is the establishment that CI is one of the important contributors to fan engagement and growth of revenue. The results indicate that CI tools, including social media sentiment analysis, behavioral tracking, and market segmentation, can help sports organizations to learn more about fan preferences and adjust their engagement strategies to those preferences. This is consistent with the available literature that suggests personalized fan experience positively affects fan loyalty and extends revenue streams (Vollero et al., 2025).

Notably, the findings of the regression in the current research are empirical evidence on the correlation between fan engagement and financial performance. Greater fan loyalty as the result of CI informed strategies results in improved ticket sales, merchandise purchases, and sponsorship opportunities. This finding is consistent with Liu (2026), who highlights the economic impact of data-driven marketing in sports organizations. Nevertheless, the current work adds an extra value as it combines both quantitative and qualitative data showing not only that the level of fan involvement increases the revenues, but also how CI tools are implemented in the practice and how this process can be operationalized. This combined approach gives a broader picture as opposed to previous individual studies.

### **5.2 CI Adoption Barriers and Challenges**

Although the advantages have been established, the study recognizes a number of obstacles that restrict successful implementation of CI in sports organizations. The most noticeable issue is the high cost of advanced CI technologies especially to small entities with a minimal financial means. According to Wilson et al. (2023), big organizations can invest in AI and big data infrastructure more easily, which puts them in a technological advantage in the industry. The current results support this issue and emphasize the danger of the competitive advantage to develop unequally between large and small sports organizations.

Moreover, the paper also notes that there is a large skills gap as an obstacle to the implementation of CI. The absence of skills in data analytics prevents the full potential of CI tools to be used by organizations. It is further complicated by the fact that organizational resistance to change may occur especially in the context of traditional sports setting where decision-making is often driven by intuition, but not by data-driven insights (Mansurali & Mahmoud, 2024). The current research, in contrast to earlier researches that only mention these barriers, offers qualitative data of the direct impact of cultural resistance on CI adoption, providing a more comprehensive insight into the issues of implementation.

### **5.3 Barrier Overcoming: Strategic Recommendations.**

Sports organizations should be more organized in the implementation of CI to overcome these challenges. To close the skills gap and become more effective with the help of analytics tools, investment in training and data literacy programs is needed. Moreover, to allow smaller organizations to engage in data-driven decision-making, it is possible to promote the use of cost-effective CI solutions (Mănescu, 2025).

The other important approach is to develop a culture of data within the organization. Pilot projects and case-based demonstrations are one of the ways through which this can be done and reveal the real benefits of CI. The leadership is essential in this change as it helps advance the strategic significance of data and encourages the use of CI in decision-making. The findings can be



extended to the existing literature as they present empirical and qualitative evidence-based actionable recommendations.

#### 5.4 Future of CI in Sports Industry.

The results of the research indicate that the functions of CI in sports organizations will keep growing as AI, big data, and real-time analytics develop. The more sports industry is becoming data-driven, the more organizations, which successfully incorporate CI into their strategic models, will be eligible to detect the new opportunities and react to the market forces.

Additionally, the proliferation of digital fan engagement platforms also opens up new avenues of CI application, as organizations can build more immersive and personalized fan experiences. This development underscores the significance of CI as a prospective ability that helps to promote innovation and sustainability in the long run.

Theoretically, the study has its contribution to the body of literature in that it places CI in the context of the dynamic capabilities frameworks, where it is instrumental in promoting strategic responsiveness. In practice, the results indicate that the investment in CI tools can make a great contribution to the operational efficiency and financial performance.

On the whole, this research contributes to the knowledge of Competitive Intelligence as an important performance determinant within the sports industry. Through its combination of empirical data and theoretical knowledge, it shows that CI is not a support function but a strategic asset that can help organizations to gain a sustained competitive advantage. Nonetheless, to maximize its potential, sports organizations will have to overcome the structural obstacles with regard to costs, expertise, and cultural resistance. Further studies on scalable solutions to CI and their long-term effects on organizational sustainability and performance should be conducted in the future.

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## Appendix A: Survey Questionnaire

### Survey on the Role of Competitive Intelligence in Enhancing Organizational Performance in the Sports Industry

Dear Participant,

This questionnaire is part of an academic research study examining the role of Competitive Intelligence (CI) in enhancing organizational performance within the sports industry.

Your responses will contribute to understanding how CI tools (e.g., AI, data analytics, predictive systems) support decision-making, player recruitment, fan engagement, and financial performance.

- Participation is voluntary
- All responses are anonymous and confidential
- There are no right or wrong answers

**Estimated time:** 5–7 minutes

#### Section A: Demographic Information

Please tick (✓) the appropriate option:

1. **Your Role in the Organization:**

- Manager
- Coach
- Data Analyst
- CI Specialist
- Other: \_\_\_\_\_

2. **Years of Experience:**

- Less than 2 years
- 2–5 years
- 6–10 years
- More than 10 years

3. **Type of Sports Organization:**

- Football Club
- Basketball Organization
- Multi-sport Organization
- Other: \_\_\_\_\_



**Section B: Measurement Scale**

Please indicate your level of agreement with the following statements using the scale below:  
1 = Strongly Disagree | 2 = Disagree | 3 = Neutral | 4 = Agree | 5 = Strongly Agree  
Construct 1: Competitive Intelligence (CI) Usage

Code	Statement	1	2	3	4	5
CI1	Our organization uses data analytics tools for strategic decision-making.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CI2	AI-based systems are used to analyze player performance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CI3	Competitive Intelligence helps identify market trends and competitor strategies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CI4	CI tools are regularly used in operational planning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CI5	Our organization relies on data-driven insights rather than intuition.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Construct 2: Player Recruitment Effectiveness**

Code	Statement	1	2	3	4	5
PR1	CI tools improve the accuracy of player selection decisions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PR2	Data analytics helps identify high-potential players.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PR3	CI reduces risks associated with player recruitment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PR4	Recruitment decisions are aligned with long-term strategic goals through CI.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Construct 3: Fan Engagement**

Code	Statement	1	2	3	4	5
FE1	CI tools help analyze fan behavior and preferences.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FE2	Social media analytics improves fan interaction strategies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FE3	Our organization uses data insights to personalize fan experiences.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FE4	CI contributes to increasing fan loyalty and engagement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Construct 4: Organizational Performance**

Code	Statement	1	2	3	4	5
OP1	CI improves overall team performance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OP2	Data-driven decisions enhance organizational efficiency.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OP3	CI contributes to increased revenue growth.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OP4	Our organization achieves competitive advantage through CI.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OP5	CI supports long-term sustainability and strategic success.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Section C: Optional Open-Ended Question**

- 1. In your opinion, what is the biggest benefit of using Competitive Intelligence in sports organizations?  
\_\_\_\_\_
- 2. What challenges does your organization face in implementing CI tools?  
\_\_\_\_\_  
\_\_\_\_\_

**Sampling Note (For Appendix Description in Paper)**

A total of 140 questionnaires were distributed among professionals working in sports organizations using a stratified sampling approach. Out of these, 120 valid responses were obtained, resulting in a response rate of 85.7%.  
Participants included managers, coaches, analysts, and CI specialists with relevant experience in decision-making roles.  
Additionally, the qualitative phase comprised 18 semi-structured interviews conducted with Competitive Intelligence professionals and sports managers. Only complete and relevant responses were included in the final analysis.