# Meta-Analysis of Studies on Factors Affecting the Occurrence of Corruption in Iranian Football

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## Abstract

**Purpose:** The present research was conducted with the aim of meta-analysis of factors affecting the occurrence of corruption in Iranian football.

**Method:** The research method was meta-analysis. 19 studies that met the criteria for entering the meta-analysis were selected as research samples through the census method in the period of 2012 to 2023 in the corruption in Iranian football. Data analysis was performed using CMA3 and SPSS software.

**Results:** A number of 69 factors were extracted from the research sample and categorized into five main categories of economic status, organizational and rules and regulations, cultural characteristics, individual characteristics and other factors and were included in the meta-analysis process. Hedges g index was used to calculate the effect size. Due to the existence of heterogeneity in the meta-analysis (p<0.001, Q=68, df=4238/62), the results of the random effects model were considered. The average combined effect size in the random effects model for effective factors in causing corruption in sports was equal to 0.83, which is significant at the 0.001 level and is considered a large effect size according to Cohen's classification. Finally, the meta-analysis results for subgroups showed that economic factors and organizational factors have the greatest effect on the occurrence of corruption in Iranian football with an effect size of 1.72 and 1.45.

**Conclusion:** In conclusion, this meta-analysis has provided valuable insights into the key factors driving corruption in Iranian football, with economic challenges and organizational weaknesses identified as the most significant contributors.

**Keywords:** Corruption, Iranian football, Meta-analysis.

## Introduction

Football is not just the world's most popular sport; it's a socio-economic phenomenon that transcends boundaries. Its influence extends beyond the pitch, shaping cultures, economies, and even politics (Afrozeh & Shafiei, 2018). This ubiquity, however, makes it vulnerable to unethical practices. Corruption in football has emerged as a pressing issue, threatening the sport's credibility and global appeal (Mousavi Biouki and et al, 2024). in Iran, football is more than a sport; it's a cultural cornerstone that unites diverse groups across the nation. Major clubs like Persepolis and Esteghlal have millions of fans, creating a dynamic ecosystem of passion and investment. However, the growing influence of football has been accompanied by allegations of corruption, undermining trust in its governance (Rasoulinejad & Tarkhan, 2024).

Corruption in football encompasses a range of unethical practices, including bribery, match-fixing, favoritism, and financial fraud. These actions violate the principles of fair play and integrity(Dunyaei & et al,2018). Understanding these practices in the context of Iranian football is crucial to addressing their root causes. The international football community has witnessed significant corruption scandals, such as those involving FIFA officials. These incidents reveal systemic vulnerabilities in football governance. By analyzing global patterns, we can gain insights into similar risks in Iran's football system (Sedighi et al,2024).

Iranian football's popularity, combined with its economic and political significance, makes it a critical area of study. Corruption within this sector affects not only the sport's integrity but also its role as a unifying social force. Addressing corruption is essential for preserving football's cultural and ethical value. Iran's economic challenges, such as inflation and unemployment, create fertile ground for corruption. Football, as a lucrative industry, often becomes a target for financial mismanagement and unethical practices. Socio-economic instability exacerbates these issues, necessitating targeted interventions (Aslani et al, 2023).

The intersection of politics and football in Iran adds another layer of complexity to corruption. Political interference in club management and league operations can lead to conflicts of interest and unethical behavior. This political dynamic must be considered in any comprehensive analysis. Corruption in football is rarely a one-sided issue; it involves multiple stakeholders. These include players, referees, club managers, sponsors, and even fans. Understanding the roles and motivations of these stakeholders is vital for devising effective anti-corruption strategies (Mehrabi et al, 2023).

In some cases, cultural norms and societal attitudes may inadvertently normalize corruption. Practices like nepotism or favoritism, though frowned upon, might be tolerated due to cultural expectations. This cultural dimension is a key factor in understanding corruption in Iranian football. At the organizational level, many Iranian football clubs and associations suffer from inadequate governance structures. Weak financial oversight, lack of transparency, and poor managerial practices create opportunities for corruption. Strengthening these organizations is a critical step toward reform (Moradi Harandi et al, 2023).

The role of media in exposing or perpetuating corruption cannot be overstated. In Iran, media coverage of football corruption shapes public perception and pressure on stakeholders. However, selective reporting or lack of investigative journalism can obscure the full scope of the problem. corruption in football can be analyzed through various theoretical lenses, such as institutional theory, agency theory, and cultural relativism. These frameworks help dissect the complex interplay of structural, organizational, and individual factors contributing to corruption (Naseri et al,2023).

A meta-analysis consolidates findings from multiple studies to identify overarching trends and patterns. This approach is particularly useful for understanding corruption in Iranian football, where existing research is fragmented and often anecdotal. Despite numerous studies on corruption in football, many focus on isolated incidents or lack a comprehensive approach. This meta-analysis addresses these gaps by synthesizing data from diverse sources to provide a holistic understanding. the primary goal of this study is to identify and categorize factors contributing to corruption in Iranian football. By synthesizing previous research, the study aims to provide actionable insights for stakeholders seeking to combat unethical practices. Structural weaknesses, such as lack of regulatory enforcement and inadequate governance frameworks, are foundational drivers of corruption. These issues are often systemic and require policy-level interventions to address (Zaki & Nasiri, 2022).

Within football clubs and associations, poor financial management, internal conflicts, and lack of accountability exacerbate corruption risks. Addressing these organizational issues can significantly reduce vulnerabilities. corruption is also driven by individual actions, such as greed, ambition, or lack of ethical standards. Education and training in ethical behavior are essential to mitigating this dimension of corruption. Cultural factors, such as collective tolerance for unethical practices or societal pressures, play a significant role in shaping corruption dynamics. Understanding these cultural nuances is critical for developing context-specific solutions (Amir Hosseini et al,2022).

The study employs a meta-analytic approach, systematically reviewing and synthesizing findings from existing research. This methodology provides a robust foundation for identifying key trends and relationships. Effective governance is a cornerstone of corruption prevention. Weak governance structures in Iranian football, such as insufficient oversight mechanisms, exacerbate ethical vulnerabilities (Homan, 2012).

The findings of this study have significant implications for policymakers. By identifying key corruption factors, stakeholders can design targeted interventions to improve transparency and accountability. Football associations play a central role in combating corruption. This study highlights areas where Iranian football associations can strengthen governance and oversight to address ethical challenges (Biglari et al,2022).

Comparing corruption dynamics in Iranian football with those in other countries provides valuable context. Lessons learned from successful reforms elsewhere can inform strategies for tackling corruption in Iran.Corruption erodes public trust in football, undermining its social and cultural value. Restoring integrity requires a multifaceted approach that addresses structural, organizational, and cultural dimensions (Mohseni Seresht & Eidi,2022).

Fans, as primary stakeholders, have a unique role in advocating for transparency and ethical practices. Mobilizing fan engagement can create grassroots pressure for reform within the football ecosystem.Corruption in football is not isolated; it reflects broader societal challenges, such as lack of accountability and rule of law. Addressing these systemic issues can have ripple effects beyond the sport(Najafi Kalori et al,2022).

This paper fills a crucial gap in the academic and practical understanding of corruption in Iranian football by synthesizing findings from multiple studies. While corruption in global football has been extensively studied, the Iranian context remains underexplored despite the sport's prominence in the country. By conducting a meta-analysis, this research provides a systematic and comprehensive overview of the factors driving corruption,

offering a nuanced understanding that goes beyond isolated incidents and anecdotal evidence (Pourfarahmand et al,2022). The insights from this study have direct implications for policymakers, football associations, and club managers in Iran. Identifying the structural, organizational, and cultural factors that contribute to corruption can inform the development of targeted interventions aimed at promoting transparency and accountability (sadatolhosseini et al,2022).

While focusing on Iran, this paper contributes to the broader understanding of corruption in football as a global phenomenon. By comparing findings with global trends, it sheds light on the unique challenges faced by developing football ecosystems and offers valuable insights for other nations with similar socio-economic and cultural dynamics. Ultimately, the study advances academic discourse and provides a foundation for future research in sports ethics, governance, and organizational behavior (Rezaei et al,2021).

This study employs meta-analysis to consolidate findings from research conducted on corruption in Iranian football, focusing on structural, organizational, individual, and socio-cultural factors. Meta-analysis is a statistical and methodological approach used to synthesize findings from multiple studies, allowing researchers to identify patterns, trends, and overarching conclusions. In the context of this paper, a meta-analysis serves as a powerful tool to systematically examine the various factors contributing to corruption in Iranian football(Mansouri & et al,2018). By aggregating data from diverse studies, this method provides a holistic understanding of the issue, offering insights that individual studies alone may not reveal. The process involves identifying relevant studies, extracting and categorizing key variables, and using statistical techniques to assess their significance and interrelationships. By synthesizing these results, the paper identifies consistent patterns,

such as the impact of weak governance or cultural tolerance for unethical practices, while also highlighting variations across different contexts (Ghorbanzadeh & Hassan Nangir, 2013).

The meta-analytic approach enhances the reliability and validity of this research by addressing potential biases and inconsistencies in individual studies. It provides a comprehensive, evidence-based perspective that can inform both academic discourse and practical interventions. Moreover, this approach ensures that the study captures the complexity of corruption in Iranian football by integrating findings across various dimensions, offering stakeholders actionable recommendations to address this pervasive issue effectively.

## Materials and Methods

The statistical population of the research included all the researches (theses, research projects and articles) inside Iran in the field of effective factors in the occurrence of corruption in Iranian football from 2012 to 2023. In order to select the desired researches, all scientific information banks of Iran, including Irandoc, Jahad University site, Humanities Portal, MagIran site, National Library, as well as Google and Google Scholar sites were searched. The search keywords in internet databases included the terms "corruption in Iranian football".The search result included 127 studies. In choosing the final sample size, we tried to use researches that have sufficient validity. After identifying the researches, the screening stage was done and the researches that did not meet the conditions for meta-analysis were excluded. At this stage, first, all repetitive and unrelated researches were discarded. The meaning of repeated research included research that was mentioned under the same title and by the same researchers in different sites, or that a similar research was both in the form of a thesis and in the form of an article, in this case, for the sake of more

credibility of the articles, The data of this type of scientific document was included in the meta-analysis, and the meaning of unrelated research included those researches that meet the necessary criteria in terms of methodology (for example, hypothesis generation, appropriate research method, sample size, sampling method, measurement tool, validity and reliability of the tool They did not have the measurement, statistical analysis method and the correctness of statistical calculations) to enter the meta-analysis process. Also, the following three main criteria were taken into consideration to include the researches in the meta-analysis:1- The researches should be about the causes of corruption in Iranian football. 2- The researches and tested hypotheses have been carried out through experimental or quasi-experimental, semi-experimental and descriptive methods. 3- The necessary information to calculate the effect size should be available in each research. After removing duplicate and unrelated researches, the number of researches was reduced to 29 cases. In the end, 10 of these researches, despite the fact that they were comprehensive and related to the research topic, were discarded due to the lack of statistical indicators necessary to calculate the effect size, and the final sample size of the research was reduced to 19 researches. CMA3 and SPSS software were used to analyze the collected data separately. CMA3 software was used to calculate the effect size and combination of probabilities, and SPSS software was used to obtain the frequency and compare the averages obtained from the effect size of the groups mentioned in the research hypotheses and questions.

## Results

Descriptive findings

In the first part, the characteristics of the research sample, which includes the research conducted in the field of corruption in Iranian football, are presented. Due to the large number of previous researches, the necessary items are shown in the form of two tables. After a detailed study of 19 researches for this meta-analysis research, the bibliographic characteristics of the research including the research code, title, name of the researchers and the year of publication of the research are presented in Table No. 1.

**Table 1. bibliographic characteristics of the research included in the meta-analysis**

| Research code | Title & Authors | Source type | print year |
|---|---|---|---|
| 1 | The effect of mass media on the control of corruption in football (Alireza Zare, Sedigheh Heydarinejad, Rizvan Shirali) | Article | 2016 |
| 2 | Designing a model of ethical decision-making by Iranian professional football referees (Fatemeh Kamali, Mohsen Manouchehrinejad, Mina Hakakzadeh) | Article | 2020 |
| 3 | Factors affecting the incidence of corruption in Iranian sports organizations (a case study of administrative corruption in the Football Federation of the Islamic Republic of Iran) (Maqsood Najafi Kalori, Mahmoud Gudarzi, Abolfazl Farahani, Hasan Ismaili Bidhandi) | Article | 2012 |
| 4 | Designing a conceptual model of the money laundering process in football and providing a solution to money laundering in football and providing a model to prevent it (Hassan Dunyaei, Seyedemad Hosseini, Nasrullah Mohammadi) | Article | 2020 |
| 5 | Investigating the effective dimensions of administrative corruption in football (Mohammad Ebrahim Razzaghi,Rahim Ramzaninejad,Qasim Mehrabi) | Article | 2014 |
| 6 | Identifying and explaining the effective components in the occurrence of corruption in Iranian football | Article | 2018 |

| 7 | Exploring the underlying and intervening factors of corruption inIran's football industry<br>(Ahmad Mahmoudi; Habib Henry; Jalil Younisi;Javad Shahlai Bagheri) | Article | 2018 |
|---|---|---|---|
| 8 | Factors of corruption in Iranian football<br>(Abolfazl Darvishi; Arman Taheri; Morteza Dosti) | Article | 2019 |
| 9 | Explaining the quantitative pattern of corruption factors in Iran's football industry<br>(Habib Henry, Ahmad Mahmoudi) | Article | 2019 |
| 10 | Investigating the effect of macro factors on corruption in Iranian football through individual and managerial mediators<br>(Hakime Afrozeh, Shahram Shafiei) | Article | 2019 |
| 11 | Identifying effective factors in money laundering in sports<br>(Hassan Dunyaei, Seyedemad Hosseini, Nasrullah Mohammadi) | Article | 2019 |
| 12 | Designing a conceptual model of the money laundering process in football and providing a solution<br>(Hassan Dunyaei, Seyed Emad Hosseini, Nasraleh Mohammadi) | Article | 2020 |
| 13 | Designing a model of factors affecting financial corruption in sports organizations<br>(Ali Naghi Ansari, Seyed Ehsan Amirhosseini, Mehrzad Hamidi) | Article | 2019 |
| 14 | Motivations and consequences of betting in football; structural approach<br>(Tahere Mohseni Seresht, Hossein Eidi) | Article | 2022 |
| 15 | Examining the dimensions of corruption and abnormality governing championship sports<br>(Siavash Khodaparast,Vahid Bakhshalipour, Fateme Monfared Fatideh) | Article | 2021 |
| 16 | Identifying the role of the club in the formation of deviant behaviors of the players of the Iranian Premier League<br>(Behzad Pourfarahmand, Mohammad Khabeiri, Seyed Nasrallah Sajjadi, Majid Jalali Farahani) | Article | 2019 |
| 17 | Analysis of demographic factors related to ethical decision making of soccer players<br>(Reza Shajie, Dr. Hashem KozeChian,. Mohammad Ehsani, Mojtabi Amiri) | Article | 2014 |
| 18 | Governance model in sports federations: good governance approach<br>(Qasim Mehrabi, Seyed Nasrullah Sajjadi, Majid Jalali Farahani) | Article | 2023 |
| 19 | Indicators and components affecting financial corruption in Iran's sports industry<br>(Maqsood Najafi Kalori, Mohammad Hami, Vahid Shujaei, Mohsen Bagherian Farahabadi) | Article | 2023 |

As it is clear from the data in Table 1, in the total number of 19 studies, those who had the criteria included in the meta-analysis were present and included in the meta-analysis process. As it can be seen, the period of research includes from 2012 to 2023 and the largest number of samples is related to 2019 with six cases.

Table 2 presents the methodological and statistical characteristics of the researches.

**Table 2. Methodological and statistical characteristics of researcher**

| Research code | Research Methodology | Statistical Society | Sampling | Tools | statistical method | Sample size |
|---|---|---|---|---|---|---|
| 1 | Descriptive survey | All football players working in the Premier League of Iran | a simple random | questionnaire | The correlation coefficient piyerson | 203 |
| 2 | mixed | Sports experts | Targeted | questionnaire | Binomial | 12 |
| 3 | Descriptive | All employees of the | enumeration | questionnaire | Binomial and | 131 |

| | survey | Football Federation | | | Friedman | |
|---|---|---|---|---|---|---|
| 4 | mixed | Sports experts | Targeted | questionnaire | modeling | 17 |
| 5 | Descriptive-analytical | Expert sports experts | Unknown | questionnaire | Hierarchy | 50 |
| 6 | Descriptive survey | Beneficiaries of football | Available | questionnaire | modeling | 109 |
| 7 | mixed | Knowledgeable experts | Targeted | questionnaire | Factor Analysis | 12 |
| 8 | Descriptive survey | Outsourcing experts | a simple random | questionnaire | regression | 385 |
| 9 | quantitative | Headmasters of the Ministry of Sports | Available | questionnaire | modeling | 196 |
| 10 | mixed | Football experts and managers | Targeted and available | questionnaire | modeling | 130 |
| 11 | mixed | Experts and specialists | Targeted | questionnaire | modeling | 100 |
| 12 | mixed | Experts and university professors | random | questionnaire | modeling | 89 |
| 13 | Descriptive-applied | All the employees of the general sports and youth departments of the provinces of the country | Multistage cluster sampling | questionnaire | Structural equation | 300 |
| 14 | Descriptive survey | Sports management experts and professors | Sampling Targeted and snowball | questionnaire | Structural equation | 11 |
| 15 | Descriptive-applied | Directors of federations and sports clubs, coaches and players of professional league clubs | Available | questionnaire | Structural equation | 250 |
| 16 | mixed | Managers of Iran's premier football league clubs | Targeted | questionnaire | Structural equation | 23 |
| 17 | Descriptive correlation | Players working in the Premier Football League of Iran | Available | questionnaire | path analysis | 162 |
| 18 | Descriptive-analytical | Beneficiaries of eight federations | random | questionnaire | Structural equation | 305 |
| 19 | mixed | Experts and managers in the field of sports management | random | questionnaire | Structural equation | 320 |

In Table 3, the specifications related to the sample size selected in the research included in the meta-analysis are presented.

**Table 3. Descriptive characteristics related to the volume of research samples**

| Number of research | Average volume Sample | standard deviation | minimum | Maximum | sum |
|---|---|---|---|---|---|
| 19 | 147/63 | 119/141 | 11 | 385 | 2805 |

As it can be seen, a total of 2805 people participated in these twelve researches as

research samples. The average sample size was equal to 147 people. The minimum sample size was equal to 11 people and the maximum sample size was equal to 385 people.

Inferential findings

The first research question: What is the size of the overall effect in the field of factors affecting corruption in sports?

By Using the meta-analysis method, it is possible to convert the results of all the researches into a standard index. Usually, two commonly used indexes of effect size include r index (relationship) and Cohen's D index

(difference). (Qorbanizadeh and Hassan Nangir, 2014). According to the type of the current research, Hedges' g index, modified by Cohen'S D, has been used.

After converting the results of all research into an effect size index, its significance can be tested and the general question can be answered whether independent variables had a significant effect on the dependent variable in numerous studies. Therefore, to answer this research question, the overall effect size was calculated for all studies. The result of this calculation is presented in Table 4.

**Table 4. Effect size and significance of effective factors in research**

| row | Research code | Hypothesis code | Type of independent variable | Effect size g hejz | P VALUE |
|---|---|---|---|---|---|
| 1 | 1 | 1 | The economic situation | 0.57 | 0.001 |
| 2 | 1 | 2 | Organizational characteristics | 1.08 | 0.001 |
| 3 | 1 | 3 | Cultural characteristic | 0.72 | 0.001 |
| 4 | 1 | 4 | Terms and Conditions | 0.62 | 0.001 |
| 5 | 1 | 5 | Individual characteristics | 1.57 | 0.001 |
| 6 | 2 | 1 | The economic situation | 0.88 | 0.001 |
| 7 | 2 | 2 | Organizational characteristics | 0.19 | 0.001 |
| 8 | 2 | 3 | Cultural characteristic | 0.23 | 0.001 |
| 9 | 2 | 4 | Terms and Conditions | 0.33 | 0.001 |
| 10 | 2 | 5 | Individual characteristics | 0.98 | 0.001 |
| 11 | 3 | 1 | Cultural characteristic | 1.25 | 0.001 |
| 12 | 3 | 2 | Economic features | 0.88 | 0.001 |
| 13 | 3 | 3 | Organizational characteristics | 1.52 | 0.001 |
| 14 | 3 | 4 | Terms and Conditions | 1.37 | 0.001 |
| 15 | 3 | 5 | Individual characteristics | 0.52 | 0.001 |
| 16 | 4 | 1 | Organizational factors | 2.17 | 0.001 |
| 17 | 4 | 2 | Management factors | 0.73 | 0.001 |
| 18 | 5 | 1 | Organizational characteristics | 0.23 | 0.001 |
| 19 | 5 | 2 | Economic features | 2.37 | 0.001 |
| 20 | 5 | 3 | Cultural characteristic | 0.93 | 0.001 |
| 21 | 5 | 4 | Individual characteristics | 1.91 | 0.001 |
| 22 | 5 | 5 | Terms and Conditions | 1.75 | 0.001 |
| 23 | 6 | 1 | Macro factors | 1.61 | 0.001 |
| 24 | 6 | 2 | Intermediate factors | 0.27 | 0.001 |
| 25 | 6 | 3 | Micro factors | 0.29 | 0.001 |
| 26 | 7 | 1 | Organizational factors | 2.13 | 0.001 |
| 27 | 7 | 2 | Administrative-economic factors | 2.01 | 0.001 |
| 28 | 7 | 3 | Legal-legal factors | 1.75 | 0.001 |
| 29 | 7 | 4 | social factors | 1.57 | 0.001 |
| 30 | 7 | 5 | Personality factors | 1.08 | 0.001 |

| 31 | 7 | 6 | Regulatory factors | 0.72 | 0.001 |
|----|----|----|----|------|-------|
| 32 | 7 | 7 | Informing factors | 0.62 | 0.001 |
| 33 | 8 | 1 | outsourcing | 4.05 | 0.001 |
| 34 | 8 | 2 | Political Manner | 2.17 | 0.001 |
| 35 | 9 | 1 | Background factors | 1.71 | 0.001 |
| 36 | 9 | 2 | Causal factors | 1.63 | 0.001 |
| 37 | 9 | 3 | interfering factors | 2.78 | 0.001 |
| 38 | 10 | 1 | Individual factors | 1.94 | 0.001 |
| 39 | 10 | 2 | Management factors | 1.93 | 0.001 |
| 40 | 11 | 1 | Poisoning of the economic environment | 2.52 | 0.001 |
| 41 | 11 | 2 | Unhealthy economic structure | 3.67 | 0.001 |
| 42 | 11 | 3 | Lack of transparent monitoring of financial affairs | 1.36 | 0.001 |
| 43 | 12 | 1 | Causal factors | 1.79 | 0.001 |
| 44 | 12 | 2 | interfering factors | 0.61 | 0.001 |
| 45 | 12 | 3 | Background factors | 0.65 | 0.001 |
| 46 | 13 | 1 | interfering factors | 1.57 | 0.001 |
| 47 | 13 | 2 | Individual factors | 1.08 | 0.001 |
| 48 | 13 | 3 | Management factors | 0.73 | 0.001 |
| 49 | 13 | 4 | Background factors | 0.62 | 0.001 |
| 50 | 14 | 1 | Administrative-economic factors | 1.57 | 0.001 |
| 51 | 14 | 2 | Legal-legal factors | 2.17 | 0.001 |
| 52 | 14 | 3 | social factors | 1.73 | 0.001 |
| 53 | 14 | 4 | Personality factors | 1.23 | 0.001 |
| 54 | 14 | 5 | Lack of transparent monitoring of financial affairs | 2.93 | 0.001 |
| 55 | 15 | 1 | Cultural characteristic | 3.54 | 0.001 |
| 56 | 15 | 2 | Individual factors | 1.73 | 0.001 |
| 57 | 15 | 3 | Unhealthy economic structure | 2.45 | 0.001 |
| 58 | 16 | 1 | Background factors | 1.88 | 0.001 |
| 59 | 16 | 2 | Unhealthy economic structure | 1.23 | 0.001 |
| 60 | 16 | 3 | Legal-legal factors | 2.82 | 0.001 |
| 61 | 17 | 1 | Administrative-economic factors | 2.17 | 0.001 |
| 62 | 17 | 2 | Legal-legal factors | 1.73 | 0.001 |
| 63 | 17 | 3 | social factors | 1.57 | 0.001 |
| 64 | 17 | 4 | Background factors | 1.32 | 0.001 |
| 65 | 17 | 5 | Unhealthy economic structure | 1.72 | 0.001 |
| 66 | 18 | 1 | Lack of transparent monitoring of financial affairs | 1.62 | 0.001 |
| 67 | 18 | 2 | Causal factors | 1.77 | 0.001 |
| 68 | 19 | 1 | Cultural characteristic | 1.36 | 0.001 |
| 69 | 19 | 2 | Individual factors | 1.45 | 0.001 |

As can be seen from the information in the above table, the effect size of all factors is less than 0.05 at the significance level, and therefore their effect size is significant. In the table below, the size of the combined (overall) effect, confidence limits, and the significance of the Z values associated with them in all researches are presented in both fixed and random models.

**Table 5. Combined effect size, confidence interval and significance of the research included in the meta-analysis**

| Model type | Number of studies | Point estimate | The standard error | Variance | 95 % confidence interval | | Null hypothesis test | |
|------------|-------------------|----------------|--------------------|----------|--------------------------|--|----------------------|--|
| | | | | | the | upper | Z | sig |

| | | | | | lower limit | line | value | |
|---|---|---|---|---|---|---|---|---|
| Fixed | 19 | 0.173 | 0.015 | 0.001 | 0.12 | 0.28 | 11.27 | 0.0001 |
| random | 19 | 0.83 | 0.13 | 0.001 | 0.13 | 1.43 | 5.23 | 0.0001 |

According to the results of the analysis reported in Table 5, the overall effect size under the fixed model with Hedges g index is 0.173 and under the random effects model is 0.83. The value of z corresponding to both models is equal to 11.27 and 5.32 respectively, both of which are significant at the 0.001 level.

Cohen's classification is usually used to interpret effect size values. Because Hedges' g index is also a modified Cohen's D index, we use Cohen's D value to interpret it. Table 6 presents the standard values for interpreting the effect size of Cohen's D index (Noghani Dekht Bahmani and Mir Mohammad Tabar, 2016).

**Table 6. Criterion values for interpreting Cohen's D index**

| Effect size | D Cohen (standard deviation unit) |
|---|---|
| small | 0.2 |
| medium | 0.5 |
| large | 0.8 |

According to the result obtained for the D index in the present research, in the random effects model (0.83) and fixed effects (0.173), we see a large and small effect size in the studies, respectively. Therefore, it can be concluded that, in general, the factors studied by the researchers have been significantly effective in causing corruption in football, and the degree of influence is evaluated based on Cohen's classification in the small fixed effects model,

but in the random effects model, it is evaluated as large. After calculating the mean effect size, an important part of meta-analysis is to examine the heterogeneity in effect sizes. One of the ways to check the existence of heterogeneity in the data is to check the results of Cochran's test and I square. Table 7 shows the results of the Q test and the I-squared value to check the heterogeneity of the research included in the meta-analysis.

**Table 7. Q test results to check heterogeneity**

| Q value | degrees of freedom (Q) | Significance level | Square I |
|---|---|---|---|
| 4238.62 | 68 | 0.0001 | 99.83 |

The value of Cochran's Q index is equal to 4238.62 and it is significant at the 0.0001 level, and this result shows that the studies included in the meta-analysis are not homogeneous and the assumption of homogeneity between the studies is rejected. In this case, the researchers suggest that the effect size of the random model be considered and reported. And the role of moderating variables can also be studied. Due to the fact that the number of hypotheses extracted from 19 main studies is 69, therefore,

the heterogeneity of the results is natural, and on the other hand, the number of studied factors effective in causing corruption in football is another reason for this heterogeneity.

The second research question:

What is the effect size of each of the multiple independent variables in the research? The results of meta-analysis of multiple independent variables with random effects method are reported in Table 8.

**Table 8. The effect size of different types of independent variables according to the type of factor or independent**

**variable**

| Operator code | Type of factor or variable | Number | Effect size | lower limit | upper line | z value | p Value |
|---|---|---|---|---|---|---|---|
| 1 | Economic | 18 | 1.724 | 1.075 | 1.945 | 4.807 | 0.001 |
| 2 | Individual | 7 | 0.213 | 0.578 | 0.957 | 3.185 | 0.001 |
| 3 | cultural | 8 | 0.329 | 0.279 | 0.937 | 2.061 | 0.001 |
| 4 | Organization and rules and regulations | 20 | 1.457 | 0.594 | 1.528 | 3.451 | 0.001 |
| 5 | other | 6 | 0.334 | 0.317 | 2.350 | 4.572 | 0.001 |

As the results of the above table show, economic factor, organizational factor, and rules and regulations with effect sizes of 1.72 and 1.45 have the largest effect size among the types of variables effective in causing corruption in football. Therefore, it can be said that according to

the results of the present meta-analysis, the most effective variable in this field is the economic factor. The factors of individual, cultural and other characteristics also have the lowest effect size among all types of effective variables.

Also, to investigate the issue of publication bias, safe N method of Rosenthal's classical error was used. The N test, safe from Rosenthal's error, measures the number of missing studies (with a mean effect equal to zero), i.e., the number of studies supporting the null hypothesis that must be added to the analysis in order to obtain a statistically insignificant overall effect size and change the result. , shows (Qorbanizadeh and Hassan Nangir, 2013). The result of this method is presented in the table below.

**Table 9. The results of safe N test from Rosenthal's classical error**

| index | value |
|---|---|
| Z value for observed studies | 35.52 |
| p value for observed studies | 0.001 |
| Alpha | 0.05 |
| Domain | 2 |
| Z value for alpha | 1.96 |
| Number of studies viewed | 69 |
| Number of missing studies that would increase the P value to alpha | 11348 |

The results of the fail-safe N test show that there should be 11,348 missing studies for the alpha level to exceed 0.05. Because this number is much larger than the number of observed studies (19 studies with 69 independent factors), it indicates the accuracy and lack of publication error, and the issue of

publication bias is not confirmed. Also, one of the methods of checking the error of the publication of the survey (right figure) and the accuracy of the results (left figure) is through a funnel or funnel diagram. In the figure below, the funnel diagram of the studies is presented.
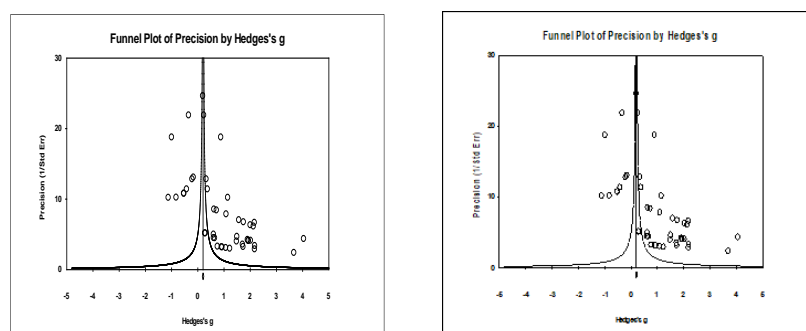
**Figure 2. Funnel diagram of the standard error of the distribution and accuracy of the results**

The relative symmetry in the two shapes of the funnel diagram indicates the absence of propagation error. In both graphs, studies with larger sample sizes are placed at the top of the graph and around the combined effect size, and studies with smaller sample sizes are placed at the bottom of the graph. As it can be seen, most of the studies are placed in the upper part of the graph due to having a larger sample size and therefore a lower standard error value, and the problem of publication bias is rejected.

## Discussion

The results of the research indicate that, in general, the factors investigated by the researchers have been significantly effective on the occurrence of corruption in Iranian football, and the effect size calculated using the random effects model is 0.83, which is based on Cohen's classification in the large limit is evaluated. The results of the present research indicate that the economic factor with an effect size of 1.72 has the largest effect size among the variables effective in causing corruption in football. Therefore, it can be said that according to the results of the present meta-analysis, the most effective variable causing corruption in Iranian football is the economic factor.

The economic landscape in Iran, characterized by inflation, unemployment, and fluctuating currency values, has created a fertile ground for corruption. Football, as a lucrative industry with significant financial transactions, is particularly vulnerable. Club managers, players, and officials often face economic pressures that incentivize unethical practices like embezzlement, bribery, and match-fixing to compensate for financial shortfalls or secure monetary gains (Mehrabi et al., 2023).

Many Iranian football clubs struggle with chronic underfunding and lack of financial oversight, which exacerbates corruption risks. Poorly managed budgets and irregular payment of player salaries lead to dissatisfaction and potential involvement in corrupt activities as a means of financial survival. Additionally, limited resources make clubs more susceptible to unethical sponsorship deals or reliance on unregulated financial sources (Najafi Kalori et al., 2022).

Economic factors also manifest in the exploitation of players and staff, particularly at lower levels of the sport. Younger or less experienced players may be coerced into corrupt practices under financial duress, such as paying bribes to secure contracts or participating in match-fixing schemes. This exploitation not only undermines the integrity of football but also perpetuates a cycle of corruption within the system (Mansouri et al., 2018).

Economic inequality among clubs and leagues in Iran creates power asymmetries that facilitate corruption. Wealthier clubs may exert undue influence over officials, referees, or league administrators, while financially weaker clubs are left with limited options to compete fairly. This imbalance fosters an environment where corruption becomes a tool for survival or dominance, further eroding the sport's fairness

(Rostam Zadeh et al,2019).

To address corruption driven by economic factors, systemic reforms in football governance and financial management are essential. Transparent financial practices, regular audits, and equitable distribution of resources can help mitigate these risks. Furthermore, policies aimed at improving the broader economic stability of the country would indirectly contribute to reducing corruption in football, creating a fairer and more sustainable environment for all stakeholders(Dunyaei et al,2019).

Also, the organizational factor and rules and regulations with an effect size of 1.457 is considered the second most influential factor in the occurrence of corruption in sports organizations. Organizational factors significantly contribute to corruption in sports organizations, including Iranian football. Weak governance structures, lack of accountability, and poorly defined roles within clubs and associations create opportunities for unethical behavior. When there are no clear checks and balances, individuals in positions of power can exploit organizational gaps for personal gain, fostering a culture where corruption thrives.

Rules and regulations are designed to maintain fairness and accountability, but their ineffectiveness or inconsistent enforcement can exacerbate corruption. In Iranian football, poorly implemented policies, vague procedural guidelines, and loopholes in regulations allow individuals to manipulate outcomes without consequences. This lack of enforcement undermines trust in the system and emboldens unethical practices (Honary & et al,2018).

The culture within sports organizations plays a critical role in either curbing or encouraging corruption. A culture that prioritizes short-term success over ethical practices can normalize corrupt behaviors, such as bribery or favoritism. In Iranian football, the absence of a strong ethical framework within clubs and associations often leads to decisions driven by personal interests rather than organizational integrity, further fueling corruption(Rasoulinejad & Tarkhan,2024).

Addressing the organizational factors contributing to corruption requires comprehensive reforms. Clear and enforceable rules, regular audits, and transparency in decision-making processes are essential steps. Additionally, fostering an ethical organizational culture through education, leadership training, and accountability mechanisms can help sports organizations prioritize integrity. Such measures would strengthen the governance of Iranian football and reduce the systemic vulnerabilities that enable corruption.( Sedighi & et al,2024).

Authoritarianism within sports organizations, particularly in football federations, often leads to centralized power structures that hinder transparency and accountability. When decision-making power is concentrated in the hands of a few individuals, it can result in biased decisions, lack of innovation, and unethical practices. Preventing authoritarianism is crucial to fostering a democratic and transparent management environment that allows for better governance and fairer decision-making processes in Iranian football(Aslani & et al,2023).

The entry of uninformed and unspecialized individuals into the management body of football organizations can significantly damage the integrity of the sport. These individuals often lack the expertise required to handle complex issues like financial management, player welfare, or legal matters, leading to poor decision-making. Their inability to properly navigate the sports industry can exacerbate corruption, mismanagement, and missed opportunities for growth, making merit-based appointments essential for effective leadership(Mehrabi & et al,2023).

One of the key recommendations to improve

the football federation's governance is to implement meritocracy in the appointment of officials. Appointing individuals based on their skills, qualifications, and experience ensures that those responsible for managing football organizations possess the necessary expertise. Merit-based selection allows for more professional leadership, fosters a culture of excellence, and mitigates the risk of corruption or favoritism that may arise when appointments are made for reasons other than competence (Moradi Harandi & et al,2023).

Ensuring that employees and managers within the football federation are selected based on their merit not only improves the quality of decision-making but also promotes professionalism within the organization. A skilled workforce is better equipped to handle the challenges of managing football clubs, overseeing competitions, and ensuring financial transparency. This would ultimately lead to improved organizational outcomes, higher levels of trust from the public, and reduced opportunities for corrupt practices (naseri & Hasani, 2019).

By preventing authoritarianism and promoting merit-based appointments, the football federation can establish a more robust, transparent, and ethical management system (Mahmoudi & et al,2018). Over time, this approach will contribute to sustainable growth within Iranian football, improve its global standing, and restore public confidence. A well-governed football federation, led by competent professionals, will not only reduce corruption but also foster a healthier and more competitive football environment that benefits all stakeholders involved (Shafii &Afrozeh, 2017).

## Conclusion

This meta-analysis has provided a comprehensive examination of the factors contributing to corruption in Iranian football, highlighting economic, organizational, individual, and socio-cultural dimensions.

Among these, economic challenges emerged as the most significant driver, while organizational weaknesses and ineffective regulations were identified as secondary but influential factors. These insights underscore the complexity and interrelated nature of corruption within the sport.

The findings have significant implications for policymakers, football associations, and club managers. Addressing corruption requires systemic reforms in governance structures, transparent financial practices, and stringent enforcement of rules. By tackling these root causes, stakeholders can create a more accountable and ethical environment in Iranian football, preserving its integrity and societal value.

This study contributes to the academic discourse by synthesizing diverse research and identifying overarching trends in corruption within Iranian football. By integrating findings from multiple studies, it offers a robust foundation for future research and provides a roadmap for addressing corruption in similar socio-economic and cultural contexts.

While this meta-analysis provides valuable insights, it is not without limitations. The reliance on available studies may exclude unpublished or inaccessible research, potentially limiting the scope. Future studies should aim to incorporate more comprehensive data and explore emerging factors influencing corruption in Iranian football.

The fight against corruption in Iranian football requires collective efforts from all stakeholders, including fans, players, officials, and policymakers. By implementing targeted reforms and fostering a culture of transparency, Iranian football can overcome its challenges and serve as a model for ethical and sustainable sports governance. These efforts will ensure the sport continues to inspire and unite its passionate fanbase.

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