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Abstract

The Video Assistant Referee (VAR) is a technology designed to review on-field decisions through video footage in order to correct clear and critical refereeing errors. It enables the replay of key moments in slow motion to determine the correct final decision, with communication between the video officials and the referee conducted via headset. The system operates under the principle of "minimal interference, maximum benefit," intervening only in essential situations. This study aimed to assess the current implementation of VAR in the Iraq Stars Football League during the 2023–2024 season. To achieve this objective, the researchers employed a descriptive survey method involving a sample of 220 participants, including referees, coaches, players, assessors, academics, administrators, and media professionals. Data were collected via a 32-item questionnaire distributed across three dimensions: VAR referee training, beneficiaries of the system, and related tools and equipment. Analysis using SPSS revealed that the VAR system's performance was rated as very good for its initial use in the league. The results support the feasibility of extending the experience to other divisions within Iraqi football. The researchers recommended conducting training camps and certification programs abroad, establishing partnerships with international football federations, allowing team coaches a single opportunity to request video review, and creating an official digital platform managed by the Iraqi Football Association to explain how VAR works and minimize misinterpretations among stakeholders. and this achieves one of the sustainable development goals of the United Nations in Iraq which is (Quality Education)

Keywords: Artificial intelligence technologies, Football, Iraq stars league, Video Assistant Referee (VAR), VAR technology

1. Introduction

Football is the world's most popular sport, enjoying immense global popularity that has endured from its early beginnings to the present day. It commands a fan base numbering in the millions and is followed daily by viewers from every corner of the world. Due to this widespread appeal, football remains at the centre of public attention and is frequently subject to both acclaim and criticism.

Like any other sport, football is built upon a set of fundamental components. These include human elements—such as players, coaches, and referees—as well as physical and technological elements, including the playing field, equipment, and various tools. Each of these components holds unique importance, collectively shaping the game into the dynamic and influential sport it is today.

Sports leadership around the world places great emphasis on supporting each of these essential

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elements by ensuring the provision of necessary resources and by keeping pace with technological advancements that contribute to the game's development. This approach aims not only to elevate performance standards but also to minimize doubts surrounding the fair enforcement of the game's laws.

Refereeing is one of the most critical pillars in football, as it encapsulates and safeguards the collective efforts of players, coaches, and the entire training process—along with its equipment—by applying the rules of the game impartially between competing teams. A football match is officiated by a refereeing team composed of a central referee (who holds ultimate and final authority in enforcing the laws of the game), two assistant referees (commonly referred to as linesmen), a fourth official (responsible for substitutions and timekeeping), and finally, the Video Assistant Referee, widely known as VAR (Video Assistant Referee).

The Video Assistant Referee (VAR) system involves a specialized team of officials whose primary task is to monitor match footage in a designated control room. This team carefully reviews critical incidents from multiple angles and at varying speeds before the on-field referee makes a final decision. VAR supports the officiating team in making fair and decisive judgments regarding goals, penalty kicks, offside calls, and red card incidents. By ensuring accurate rulings, the system helps prevent outcomes that could unfairly affect match results and the interests of competing teams, thereby also reducing the likelihood of conflict among players or even among spectators.

VAR is widely regarded as one of the most significant technological innovations in modern football. It has greatly facilitated the proper conduct of matches by enhancing the precision and fairness of officiating decisions. The system is particularly useful in correcting misidentifications of sanctioned players and verifying pivotal events such as goal validity or offside infractions. Through detailed and repeated video reviews, referees are able to make more informed and just rulings. Globally, the introduction of VAR has already made a substantial impact on the integrity and smooth progression of the game.

The significance of this research lies in examining the actual implementation of the Video Assistant Referee (VAR) system in Iraq, particularly given its recent introduction into the Iraqi Premier League. The study aims to determine whether the application of this technology has been successful and, therefore, suitable for broader adoption across other tiers of Iraqi football. It also seeks to assess whether the system, or the officiating personnel responsible for its operation, requires further development or training

in order to effectively support the refereeing process in the country.

1.1. Research problem

Refereeing has evolved beyond the simple reception and recall of information; it now demands the development of interpretive and analytical skills, placing greater responsibility on the referee. This evolution necessitates the rapid processing, comprehension, and application of vast amounts of information in a manner that aligns with officiating objectives and the dynamic context of gameplay. Technologies such as the Video Assistant Referee (VAR) system play a crucial role in performance analysis, underscoring the importance of equipping referees with the necessary competencies to operate such tools effectively in today's data-driven, technology-based environment.

Accordingly, the research problem centres on the following question: *Has the implementation of the Video Assistant Referee system in the Iraqi Stars League proven successful?* This question is addressed through a systematic examination of how the VAR system has functioned in managing league matches as an integral component of the officiating team.

1.2. Research objective

To investigate the current performance and effectiveness of the Video Assistant Referee (VAR) system in managing matches in the Iraqi Stars League.

Video Assistant Referee (VAR) technology

The Video Assistant Referee (VAR) system, as defined by [Abdulkarim \(2019\)](#), involves a team of specialized referees assigned to monitor match footage from a dedicated control room equipped for this purpose. These referees communicate with on-field officials through a transmission system based on fiber-optic technology. The VAR is designed to review decisions made by the main referee through video replays, aiming to correct clear and obvious officiating errors and address critical moments that demand accurate judgment. This is achieved by replaying decisive incidents in slow motion to ensure that the final decision is correct. Communication between the VAR team and the on-field referee is conducted via headset. The system operates under the principle of "minimum interference, maximum benefit," meaning it is activated solely in essential situations that may significantly impact the outcome of the match ([Abdulkarim, 2019](#)), [Fig. 1](#), [Fig. 2](#), [Fig. 3](#) shows some pictures of (VAR) technology.



Fig. 1. Shows a team of specialized referees.

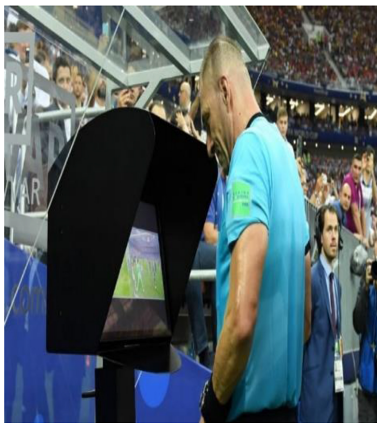


Fig. 2. Shows The referee watches the replay.



Fig. 3. Shows slow motion replay.

Video Assistant Referee (VAR) technology was first piloted in the Netherlands in 2012. It was tested at the FIFA Club World Cup in 2016 and officially implemented for the first time during the 2018 FIFA World Cup in Russia. Since then, VAR has been formally adopted in major competitions such as the English

Premier League, La Liga, and the UEFA Champions League. In Iraq, the technology was introduced for the first time in the Iraq Stars League during the 2023–2024 season.

2. Methodology and procedures

2.1. Research methodology

The researchers employed a descriptive methodology using a survey approach, as it aligns well with the objectives of the study. This approach is defined by [Allawi and Rateb \(1999\)](#) as the collection of data from individuals and communities in an attempt to identify the current state of a society in relation to a particular variable or set of variables.

2.2. Research population and sample

The research population comprised a group of referees, players, coaches, media professionals, and academic specialists in the field of football, totalling 220 individuals who were randomly selected to respond to the study questionnaire. The exploratory sample included 20 participants, while the main sample consisted of 200 participants. [Table 1](#) and [Table 2](#) present the descriptive breakdowns of both samples.

2.3. Research instrument (Questionnaire form)

The researchers adopted the questionnaire originally developed by [Mahmoud et al. \(2022\)](#), with

Table 1. Shows quantitative description of the exploratory sample.

| No. | Job Title | Number | Percentage |
|-------|---------------------|--------|------------|
| 1 | Referees | 10 | 50% |
| 2 | Coaches | 2 | 10% |
| 3 | Administrators | 1 | 5% |
| 4 | Players | 2 | 10% |
| 5 | Media Professionals | 2 | 10% |
| 6 | Academics | 3 | 15% |
| Total | | 20 | 100% |

Note: Percentages of the exploratory sample.

Table 2. Shows quantitative description of the main study sample.

| No. | Job Title | Number | Percentage |
|-------|---------------------|--------|------------|
| 1 | Referees | 130 | 65% |
| 2 | Coaches | 10 | 5% |
| 3 | Administrators | 10 | 5% |
| 4 | Players | 10 | 5% |
| 5 | Media Professionals | 10 | 5% |
| 6 | Academics | 20 | 10% |
| 7 | Assessors | 10 | 5% |
| Total | | 200 | 100% |

Note: Percentages of the main study sample.

minor modifications made to suit the objectives of the current study. The final version of the questionnaire consisted of 32 items, distributed across three main dimensions.

1. Training and Qualification of the Video Assistant Referee – 12 items
2. Beneficiaries of the VAR Technology – 10 items
3. Tools and Equipment Related to VAR Technology – 10 items

2.4. Exploratory study

The Exploratory study is defined by the Academy of the Arabic Language (1984) as a preliminary experimental investigation conducted by the researcher on a small sample prior to undertaking the full study, with the aim of selecting appropriate research methods and instruments. This process is considered one of the most critical steps recommended by experts in the field of scientific research to ensure the accuracy and reliability of results. Accordingly, the two researchers conducted the pilot study on a sample of 20 participants to assess the clarity and comprehensibility of the questionnaire items and to calculate the scientific metrics (validity and reliability) of the instrument.

2.5. Scientific metrics of the questionnaire instrument

2.5.1. First: Validity

Content validity, as defined by Radwan (2006), refers to the extent to which a measurement instrument accurately assesses the construct or phenomenon it is intended to measure. In this study, content validity was established by distributing the questionnaire to seven experts specializing in testing and measurement, sports management, and football. Their professional judgment was sought regarding the appropriateness of the questionnaire’s domains and items in relation to the Iraqi context and the research objectives. An agreement rate of 85% or higher—considered a benchmark by the researchers—was achieved, indicating acceptance of the relevant items and axes. The results are presented in Table 3 and Table 4.

2.5.2. Second: Reliability

According to Ismail (2004), reliability is defined as the precision of the measurement tool in assessing and observing behaviour without internal inconsistency, and its ability to consistently provide the researcher with accurate information about the respondent’s behaviour. In essence, reliability reflects the proportion of score variance that represents the respondent’s actual performance.

Reliability was calculated using two methods:

1. **Split-half method:** The questionnaire (comprising 32 items) was divided into two equal halves—16 odd-numbered items and 16 even-numbered items. The Pearson correlation coefficient was first computed, followed by the application of the Spearman–Brown correction formula. The resulting correlation coefficient was (0.888), indicating a high level of reliability, as shown in Table 6.
2. **Cronbach’s Alpha:** This method, also known as internal consistency, measures the strength of inter-item correlations. It is regarded as one of the most accurate methods for assessing reliability, as it relies on splitting the scale into multiple parts and incorporates the explained variance of item correlations. The results are also presented in Table 5.

2.6. Main experiment

After confirming the validity of the questionnaire through expert review and its suitability for the Iraqi context, the research sample, and the study objectives, the researchers prepared the questionnaire using Google Forms. This platform was selected to facilitate distribution to the study sample and to streamline data collection and analysis. The questionnaire was distributed to 200 participants, comprising referees, coaches, players, assessors, academics, media professionals, and administrators, during the period from January 10 to January 23, 2025. The collected responses were then processed and analyzed using the Statistical Package for the Social Sciences (SPSS).

Table 3. Shows percentage of expert opinions regarding the validity of the questionnaire dimensions.

| No. | Dimensions | Frequency | | | |
|-----|---|-----------|-----------|--------------|------------|
| | | Valid | Not Valid | Modification | Percentage |
| 1 | Qualification of the Video Assistant Referee (VAR) | 7 | 0 | 0 | 100% |
| 2 | Beneficiaries of the Video Assistant Referee (VAR) Technology | 7 | 0 | 0 | 100% |
| 3 | Tools and Equipment Related to the Video Assistant Referee (VAR) Technology | 7 | 0 | 0 | 100% |

Note: 85% and above approved.

Table 4. Shows percentage of expert opinions on the validity of the questionnaire items.

| No. | Items | Frequency | | | Percentage |
|---|--|-----------|-----------|--------------|------------|
| | | Valid | Not Valid | Modification | |
| Domain One: Training and Qualification of the Video Assistant Referee (VAR) in Football | | | | | |
| 1 | The Iraq Football Association is actively engaged in the qualification and training of Video Assistant Referees (VAR). | 7 | 0 | 0 | %100 |
| 2 | The Iraq Football Association develops strategic plans and programs aimed at continuously preparing and qualifying VAR officials. | 6 | 1 | 0 | %85 |
| 3 | Proper training and preparation, based on modern scientific approaches, are essential to developing competent VAR referees. | 7 | 0 | 0 | %100 |
| 4 | VAR officials receive training on the use of the latest tools and technologies associated with the system. | 7 | 0 | 0 | %100 |
| 5 | Effective VAR training contributes significantly to enhancing the overall quality and performance of the technology. | 7 | 0 | 0 | %100 |
| 6 | The Referees Committee of the Iraq Football Association organizes regular seminars and workshops to support the development of VAR referees. | 7 | 0 | 0 | %100 |
| 7 | VAR referees affiliated with the Iraq Football Association are enrolled in courses held by the Fédération Internationale de Football Association (FIFA). | 7 | 0 | 0 | %100 |
| 8 | The Iraq Football Association arranges international training camps abroad to further develop the competencies of VAR referees. | 7 | 0 | 0 | %100 |
| 9 | The Association also establishes partnerships with other football federations to advance VAR training initiatives. | 6 | 1 | 0 | %85 |
| 10 | VAR referees are regularly updated and trained on the latest rule modifications issued by FIFA. | 7 | 0 | 0 | %100 |
| 11 | Review sessions are conducted with VAR officials to analyze and interpret selected officiating cases. | 7 | 0 | 0 | %100 |
| 12 | VAR referees undergo periodic physical, technical, and psychological preparation to ensure optimal performance during match officiation. | 7 | 0 | 0 | %100 |
| Domain Two: Beneficiaries of the Video Assistant Referee (VAR) Technology | | | | | |
| 1 | Players remain on the field of play during the review procedures. | 7 | 0 | 0 | %100 |
| 2 | Substitutes and team officials are required to stay off the field during review procedures. | 7 | 0 | 0 | %100 |
| 3 | A player, substitute, or team official who enters the video operation room is subject to dismissal. | 7 | 0 | 0 | %100 |
| 4 | Players and team officials sometimes attempt to pressure the referee to request a review or to influence the video review process or final decision. | 7 | 0 | 0 | %100 |
| 5 | Coaches or players are allowed to request a video review. | 6 | 1 | 0 | %85 |
| 6 | Disciplinary action is taken against any player, substitute, substituted player, or team official who enters the referee review area. | 7 | 0 | 0 | %100 |
| 7 | The federation provides awareness and guidance programs to educate and support fans in accepting the outcomes of VAR decisions. | 6 | 1 | 0 | %85 |
| 8 | The federation offers an electronic portal that delivers instructional guides, support, and training on VAR technology for various beneficiary groups. | 6 | 1 | 0 | %85 |
| 9 | The federation assigns technical, administrative, and IT staff to clarify the roles and responsibilities associated with VAR for stakeholders. | 7 | 0 | 0 | %100 |
| 10 | The federation delivers educational programs, support, and training on VAR through various media channels. | 6 | 1 | 0 | %85 |
| Domain Three: Equipment and Devices Specific to the Video Assistant Referee (VAR) System. | | | | | |
| 1 | The Video Assistant Referee (VAR) uses a headset to communicate with the on-field referee when necessary. | 7 | 0 | 0 | %100 |
| 2 | A team of supervisors is responsible for setting up and installing the VAR equipment in designated areas within the stadium. | 7 | 0 | 0 | %100 |
| 3 | The VAR system relies on specialized devices for recording and playback, such as the IP Director or 3Play systems. | 7 | 0 | 0 | %100 |
| 4 | The fundamental principle of VAR involves capturing footage from multiple camera angles and storing it on dedicated hard drives to assist referees in making accurate decisions. | 7 | 0 | 0 | %100 |
| 5 | The football federation contracts with a company that supplies the necessary VAR equipment, including software and recording hardware. | 7 | 0 | 0 | %100 |

(Continued)

Table 4. Shows percentage of expert opinions on the validity of the questionnaire items.

| No. | Items | Frequency | | | |
|-----|--|-----------|-----------|--------------|------------|
| | | Valid | Not Valid | Modification | Percentage |
| 6 | VAR systems record the full 90 minutes from each camera angle in the stadium to ensure comprehensive and detailed footage. | 7 | 0 | 0 | %100 |
| 7 | Adequate power sources are secured and maintained to support the operation of the VAR system. | 7 | 0 | 0 | %100 |
| 8 | The match commissioner coordinates with the venue’s receiving team and security personnel to implement all required measures for the protection and support of the VAR team. | 7 | 0 | 0 | %100 |
| 9 | The Iraq Football Association conducts both theoretical and practical training sessions for VAR officials on how to use the modern tools and equipment involved in the system. | 6 | 1 | 0 | %85 |
| 10 | VAR technology promotes fairness between competing teams and resolves many of the issues related to refereeing errors. | 7 | 0 | 0 | %100 |

Note: 85% and above approved.

Table 5. Shows presents the reliability coefficients of the questionnaire using both the split-half method and cronbach’s alpha method.

| Split-Half Reliability Coefficient | Spearman–Brown Formula | Cronbach’s Alpha Coefficient | Sig | Statistical Significance |
|------------------------------------|------------------------|------------------------------|--------|--------------------------|
| 0,888 | 0,940 | 0,865 | 0.000* | Reliable |

*Significant correlation, $p < 0.05$.

3. Presentation and discussion of results

The following section presents and discusses the findings related to the study’s central objective: *to examine the current status of the Video Assistant Referee (VAR) system’s implementation in the Iraq Stars Football League*. After data extraction from the completed questionnaires, responses were statistically analyzed using SPSS. Frequencies and percentages were calculated for each response option (Agree, Somewhat Agree, Disagree) across the three primary axes of the questionnaire. The outcomes are detailed in [Table 6](#), [Table 7](#), and [Table 8](#).

[Table 6](#) presents the frequencies and percentages of participants’ responses for each item under the first axis of the questionnaire, which pertains to the qualification of the Video Assistant Referee (VAR) in football. The data indicate that items 1, 2, 3, 4, 5, 6, 7, 10, 11, and 12 all exceeded the 75% threshold, a percentage that the researchers adopted as the benchmark for interpreting results. This aligns with [Allawi and Radwan \(1979\)](#) assertion that researchers have the right to determine the percentage they deem appropriate when selecting indicators. The findings reflect a consensus among the sample participants—including referees, players, coaches, media professionals, assessors, and academics—that VAR referees in Iraq are adequately qualified and that the Iraq Football Association actively seeks to improve their performance through strategic planning and continuous training programs.

This result supports the findings of [Isa \(2011\)](#), who noted that refereeing courses have contributed to enhancing the referees’ informational engagement,

improving the clarity and transmission of information, and subsequently refining referees’ performance. Meanwhile, items 8 and 9 received less than 75%, with responses distributed across the three options (Agree, Somewhat Agree, Disagree), suggesting the need for the Iraq Football Association to enhance this domain by organizing international training camps and establishing partnerships with other football associations.

[Table 7](#) reports the frequency counts and percentage distributions of participants’ responses to each item under the second domain of the questionnaire, which addresses the beneficiaries of VAR technology. Items 1, 2, 3, 6, 7, 9, and 10 all exceeded the 75 percent threshold adopted by the researchers for interpreting the data, indicating a consensus among respondents that the intended beneficiaries do, in fact, gain clear advantages from the system. Participants agreed that VAR has produced a marked improvement in refereeing decisions and in the overall organization of matches, thereby granting referees sufficient protection. These findings are consistent with [Abdulkarim \(2019\)](#) assertion that leveraging modern technologies enables faster decision-making and consequently reduces protests arising from delays in referees’ calls. Hence, VAR helps clarify decisions, enhances result analysis for all stakeholders, and makes refereeing outcomes easier for spectators and followers to understand.

The study’s findings also align with those of [Carlos et al. \(2019\)](#), who concluded that the introduction of the Video Assistant Referee (VAR) system has led to a reduction in fouls, errors, and yellow cards. However, items 4 and 8 received agreement rates below the

Table 6. Shows the frequencies and percentages of participants' responses regarding the items of the first dimension: The training and qualification of the Video Assistant Referee (VAR) in football.

| No. | Items | Agree | | Somewhat Agree | | Disagree | |
|-----|--|-----------|------------|----------------|------------|-----------|------------|
| | | Frequency | Percentage | Frequency | Percentage | Frequency | Percentage |
| 1 | The Iraqi Football Association is actively involved in qualifying video assistant referees (VAR). | 190 | %95 | 10 | %5 | 0 | %0 |
| 2 | The Iraqi Football Association continuously develops plans and programs to enhance the training of VAR officials. | 180 | %90 | 20 | %10 | 0 | %0 |
| 3 | Effective qualification and preparation, combined with the application of modern scientific methods, contribute to developing well-trained VAR referees. | 190 | %95 | 10 | %5 | 0 | %0 |
| 4 | VAR officials are trained to operate the latest tools and devices used in VAR football technology. | 170 | %85 | 20 | %10 | 10 | %5 |
| 5 | The qualification of VAR referees results in a significant enhancement of the system's overall performance. | 180 | %90 | 20 | %10 | 0 | %0 |
| 6 | The Referees Committee within the Iraqi Football Association regularly organizes seminars and meetings to support VAR training. | 160 | %80 | 30 | %15 | 10 | %5 |
| 7 | VAR officials from the Iraqi Football Association are included in training sessions conducted by FIFA. | 170 | %85 | 20 | %10 | 10 | %5 |
| 8 | The Iraqi Football Association organizes overseas training camps for VAR referees. | 140 | %70 | 50 | %25 | 10 | %5 |
| 9 | The Association also establishes partnerships with other football federations to further develop the qualifications of VAR referees. | 130 | %65 | 50 | %25 | 20 | %10 |
| 10 | VAR referees receive periodic training to stay current with the latest FIFA-sanctioned rule modifications. | 160 | %80 | 40 | %20 | 0 | %0 |
| 11 | Practical sessions are conducted with VAR officials to review and analyze specific refereeing situations. | 180 | %90 | 20 | %10 | 0 | %0 |
| 12 | VAR referees are trained not only technically but also physically and psychologically to ensure their preparedness for officiating matches. | 170 | %85 | 20 | %10 | 10 | %5 |

Note: Percentages of the first dimension.

75% threshold, suggesting the need for targeted improvements in these areas. Enhancing these components is essential to maintaining order on the field and preserving the autonomy of the refereeing team in making fair decisions based on the dynamics of the match, as they are ultimately the authoritative figures with the necessary expertise. Furthermore, there is a need for the Iraqi Football Association to establish digital platforms that disseminate instructional guides for VAR beneficiaries to reduce misinterpretations and misjudgements. This concern is supported by a survey conducted by the market research company YouGov, which found that 60% of fans believe the VAR system functions poorly or very poorly, while only 27% think it performs well or very well. To address this discrepancy and ensure transparency, it is imperative that the public gains a clear understanding of how the system operates and its intended objectives. Lastly, Item 5 received a 65% disagreement rate, primarily because it is not currently implemented in football. The researchers recommend that, in the future, teams be permitted to request a single VAR review per match—similar to the rule in futsal—in a manner that supports fairness and serves the interests of the competing teams.

Table 8 presents the frequency counts and percentage distributions of participants' responses to each item within the third domain of the questionnaire, which pertains to the tools and equipment used in the Video Assistant Referee (VAR) system. The data show that all items in this domain received agreement rates exceeding 75%, indicating a strong consensus among respondents that the Iraqi Football Association has adequately provided the necessary equipment and tools to implement the VAR system effectively in the Iraq Stars League. This provision has been instrumental in ensuring the success of the VAR implementation in Iraq. This finding aligns with [Abdulkarim \(2019\)](#), who noted that the proper use of equipment and tools supplied by international companies leads to accurate outcomes that support the effectiveness of VAR in assisting decision-making. Similarly, [Al-Majdalawi \(2012\)](#) emphasized that the necessity of enhancing the standard related to decision-making accuracy and the availability of essential information for referees. Furthermore, the results are consistent with the study by [Kolbinger and Lames \(2017\)](#), which concluded that the use of modern technologies in football has significantly reduced injustices arising from

Table 7. shows the frequencies and percentage distributions of participants' responses regarding the items included under the second dimension of the questionnaire, which focuses on the beneficiaries of the Video Assistant Referee (VAR) technology.

| No. | Items | Agree | | Somewhat Agree | | Disagree | |
|-----|--|-----------|------------|----------------|------------|-----------|------------|
| | | Frequency | Percentage | Frequency | Percentage | Frequency | Percentage |
| 1 | Players remain on the field of play during the review procedures. | 190 | %95 | 10 | %5 | 0 | %0 |
| 2 | Substitutes and team officials are required to stay outside the field of play during the review process. | 200 | %100 | 0 | %0 | 0 | %0 |
| 3 | A player, substitute, or team official who enters the video operation room is subject to expulsion. | 200 | %100 | 0 | %0 | 0 | %0 |
| 4 | Players and team officials may attempt to influence the referee to request a review or to impact the video review process or the final decision. | 100 | %50 | 70 | %35 | 30 | %15 |
| 5 | Coaches and players are allowed to request a video review. | 30 | %15 | 40 | %20 | 130 | %65 |
| 6 | Administrative action is taken against any player, substitute, replaced player, or team official who enters the referee review area during a review. | 190 | %95 | 10 | %5 | 0 | %0 |
| 7 | The federation offers awareness and educational programs aimed at preparing and supporting fans to accept the guidance and decisions derived from VAR technology. | 150 | %75 | 20 | %10 | 30 | %15 |
| 8 | The federation provides an electronic portal offering instructional materials, support, and training on the VAR system tailored to different beneficiary groups. | 140 | %70 | 40 | %20 | 20 | %10 |
| 9 | The federation ensures the availability of technical, administrative, and operational personnel to clarify the roles and responsibilities of VAR technology to stakeholders. | 170 | %85 | 20 | %10 | 10 | %5 |
| 10 | The federation delivers instructional programs, support, and training on the VAR system through various media platforms. | 160 | %80 | 30 | %15 | 10 | %5 |

Note: Percentages of the second dimension.

Table 8. shows the Frequencies and percentages of respondents' opinions regarding the items of the third dimension (VAR-specific tools and equipment).

| No. | Items | Agree | | Somewhat Agree | | Disagree | |
|-----|--|-----------|------------|----------------|------------|-----------|------------|
| | | Frequency | Percentage | Frequency | Percentage | Frequency | Percentage |
| 1 | The Video Assistant Referee (VAR) uses a headset to communicate when necessary. | 190 | %95 | 10 | %5 | 0 | %0 |
| 2 | A team of VAR supervisors is responsible for installing and positioning the equipment in the designated areas of the stadium. | 200 | %100 | 0 | %0 | 0 | %0 |
| 3 | The VAR system utilizes specific devices for recording and playback, such as the IP Director or 3Play. | 160 | %80 | 40 | %20 | 0 | %0 |
| 4 | The core principle of VAR involves recording footage from multiple angles onto dedicated hard drives to support the referee in making accurate decisions. | 190 | %95 | 10 | %5 | 0 | %0 |
| 5 | The football federation contracts with a company to provide VAR referees with the required devices, including software and specialized recording hardware. | 190 | %95 | 10 | %5 | 0 | %0 |
| 6 | VAR systems record 90 minutes of footage from each stadium camera to ensure optimal image clarity and comprehensiveness. | 160 | %80 | 30 | %15 | 10 | %5 |
| 7 | The necessary power sources are secured and provided to operate the VAR system effectively. | 180 | %90 | 20 | %10 | 0 | %0 |
| 8 | The match commissioner coordinates with the receiving team and stadium security officer to implement all necessary measures for protecting the VAR team. | 180 | %90 | 10 | %5 | 10 | %5 |
| 9 | The Iraqi Football Association organizes theoretical and practical training courses for VAR officials on the use of the latest devices and tools incorporated in VAR technology. | 190 | %95 | 10 | %5 | 0 | %0 |
| 10 | The VAR system ensures fairness between the two teams on the field and resolves numerous refereeing errors. | 180 | %90 | 20 | %10 | 0 | %0 |

Note: Percentages of the third dimension.

refereeing errors, as these technologies contribute to fairer competition.

Carlos et al. (2019) emphasized that the implementation of the Video Assistant Referee (VAR) system has brought about a significant transformation in the decision-making process, resulting in increased accuracy of refereeing decisions in elite-level football matches. Similarly, Kolbinger and Lames (2017) discussed that despite technological advancements, refereeing tools such as VAR continue to face challenges related to the interpretation and application of the laws of the game in real time during matches. In response, Mahmoud et al. (2022) proposed several improvements to the VAR system, highlighting the need for specialized training and continuous updates to refereeing protocols in order to enhance officiating performance in professional leagues. Furthermore, Abdulkarim (2019) explained that the effectiveness of technological applications in match officiating varies greatly depending on the available infrastructure and the quality of training programs provided within each national league.

4. Conclusion

1. The performance of the Video Assistant Referee (VAR) system was deemed highly satisfactory as a first-time implementation in the Iraq Stars Football League.
2. The successful experience with VAR in this league suggests its potential for expansion and application across other divisions of the Iraqi Football League.

Recommendations

1. Organize international training camps and qualification programs, and establish partnerships with global football federations to stay informed of the latest technological developments in the sport.
2. Grant team coaches the right to request a single video review during matches.
3. Develop and maintain a digital platform, overseen by the Iraqi Football Association, that provides comprehensive explanations of how the VAR system operates, in order to prevent misjudgements and ensure better understanding among stakeholders.

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Conflict of interest

The authors declare that there is no conflict of interest.

Authors' contributions

- **Dr. Mais Mahmoud Salman:** Participant communication and distribution of the research instrument.
- **Dr. Raghda Hassan Ibrahim:** Statistical analysis.
- **Dr. Felix Arbinaga:** Scientific consultation.
- **Assistant Lecturer Maryam Abdul Jabbar:** Manuscript formatting.

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Data availability

The data that support the findings of this study are available on request from the corresponding author.

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