



Utilizing Digital Public Relations Tools and Artificial Intelligence Techniques to Transform Sports Events into Engines for Investment and Strengthening National Identity: FIFA World Cup Qatar 2022 as a model

Dr. Wafaa Salah Abdel Rahman Khalil

Assistant Professor of Public Relations and Advertising
Faculty of Arts, Zagazig University

Abstract

This study examines the impact of digital public relations tools, new technologies, and artificial intelligence techniques in transforming sports events into engines for investment and strengthening national identity. Using the FIFA World Cup Qatar 2022 as a model, the research explores how digital communication strategies, AI-powered engagement, and technological innovations contributed to enhancing economic returns, global visibility, and national branding.

The study highlights key digital PR strategies, including AI-driven content creation, immersive fan experiences,



real-time data analytics, and social media engagement, demonstrating their role in maximizing audience interaction, sponsorship value, and international perception. Additionally, it investigates how Qatar successfully utilized these tools to reinforce its national identity by showcasing cultural heritage, technological advancements, and organizational excellence.

Findings suggest that the strategic integration of digital PR and AI in sports events can significantly boost investment opportunities and long-term national branding. The research concludes that leveraging emerging technologies in public relations is essential for optimizing the economic and social impact of global sporting events. Future studies may further explore the adaptability of these strategies across different sports industries and cultural contexts.

Keywords: Digital Public Relations, Artificial Intelligence, Sports Events, National Investment, National Identity

استخدام أدوات العلاقات العامة الرقمية وتقنيات الذكاء الاصطناعي لتحويل الأحداث الرياضية إلى محركات للاستثمار وتعزيز الهوية الوطنية: كأس العالم FIFA قطر 2022 نموذجاً

د . وفاء صلاح عبد الرحمن خليل

استاذ العلاقات العامة والإعلان المساعد قسم الاعلام كلية الاداب جامعة الزقازيق

ملخص:

تبحث هذه الدراسة في تأثير أدوات العلاقات العامة الرقمية والتقنيات الجديدة وتقنيات الذكاء الاصطناعي في تحويل الأحداث الرياضية إلى محركات للاستثمار وتعزيز الهوية الوطنية. باستخدام كأس العالم FIFA قطر 2022 كنموذج، يستكشف البحث كيف ساهمت استراتيجيات الاتصال الرقمي والمشاركة المدعومة ب الذكاء الاصطناعي والابتكارات التكنولوجية في تعزيز العوائد الاقتصادية والرؤية العالمية والعلامة التجارية الوطنية.

وتسلط الدراسة الضوء على استراتيجيات العلاقات العامة الرقمية الرئيسية ، بما في ذلك إنشاء محتوى قائم على الذكاء الاصطناعي، وتجارب المعجبين الغامرة ، وتحليلات البيانات في الوقت الفعلي ، والمشاركة في وسائل التواصل الاجتماعي ، مما يدل على دورها في تعظيم تفاعل الجمهور وقيمة الرعاية

والإدراك الدولي. بالإضافة إلى ذلك، يبحث في كيفية نجاح قطر في استخدام هذه الأدوات لتعزيز هويتها الوطنية من خلال عرض التراث الثقافي والتقدم التكنولوجي والتميز التنظيمي.

وتشير النتائج إلى أن التكامل الاستراتيجي للعلاقات العامة الرقمية الذكاء الاصطناعي في الأحداث الرياضية يمكن أن يعزز بشكل كبير فرص الاستثمار والعلامات التجارية الوطنية طويلة الأجل. ويخلص البحث إلى أن الاستفادة من التقنيات الناشئة في العلاقات العامة أمر ضروري لتحسين الأثر الاقتصادي والاجتماعي للأحداث الرياضية العالمية. قد تستكشف الدراسات المستقبلية قدرة هذه الاستراتيجيات على التكيف عبر مختلف الصناعات الرياضية والسياقات الثقافية.

الكلمات الدالة: العلاقات العامة الرقمية، الذكاء الاصطناعي، الأحداث الرياضية، الاستثمار الوطني، الهوية الوطنية، كأس العالم FIFA قطر 2022

Introduction:

The sports and entertainment sectors are key drivers of economic diversification and cultural development, particularly in the context of initiatives like Vision 2030 in the Arab world (Brown, R. T., & Green, S. P., 2017). It also plays a significant role in enhancing financial streams (Smith, J. A., 2020) and supports sustainable development in the Arab world, creating new job opportunities. Moreover, the sports sector stimulates non-governmental sectors to take on their role in contributing to strengthening the outputs of activities and services that support financial aspects (Johnson, L. M., 2018). The sports sector is considered one of the fastest-growing sectors due to its low infrastructure requirements, especially when sports facilities are already equipped with the latest global standards required for sports. This development opens all doors for the private sector to invest in football and sports, which in turn boosts the market value of sports and leads to higher ticket prices, sponsorships, and club products, ultimately transforming it into a full-fledged industry with its entire ecosystem.

This study examines the transformation of sports events from entertainment into economic industries, emphasizing their potential to support sustainable development, create job opportunities, and enhance national identity. Examples such as Qatar's hosting of the FIFA World Cup 2022

Literature Review

When reviewing the research and studies related to this topic, we find that many studies, such as those by (Al-Shammari, M. 2019), (Smith, J. 2021), (Martinez, L. 2023), and (Al-Saeed, R. 2023), have focused on the role of digital public relations in the sports field. Digital public relations is considered a key tool in modern sports, significantly contributing to the creation of a positive image for sports clubs, players, and federations, strengthening relationships with fans and commercial partners,

and helping to build a cohesive digital identity for sports brands across various digital platforms. Additionally, digital public relations facilitate partnerships with influencers, who can reach a wide audience and influence purchasing decisions.

According to (Thompson, R. 2023) and Al-Buqami, N. (2023), digital public relations provide interactive platforms that allow fans to communicate with clubs and players, build fan communities, and help understand the needs and expectations of the audience, which in turn aids in making better marketing decisions. As noted by (Lewis, J. 2023) and (Al-Salem, R. 2024), digital public relations also helps measure the performance of marketing campaigns and fan engagement, improving marketing strategies based on the data and analytics collected. Moreover, as (Johnson, L. 2022) pointed out, digital public relations offer live coverage of sports events online and provides multimedia content (photos, videos, articles) covering various aspects of the events, thereby increasing audience reach. According to (Roberts, A. 2023), digital public relations offer its sports services through various digital means, such as sports organizations' and players' websites, mobile applications providing services to fans, and email for direct communication with fans and partners. Social media platforms like Facebook, X, Instagram, YouTube, and others also play a crucial role in this regard. Research has highlighted the importance of social media as a primary tool for communication between clubs, federations, and their fans. According to (Al-Ali, S. 2020), (Al-Asiri, N. 2023), and (Al-Qahtani, A. 2022), social media platforms serve as spaces for building fan communities, marketing events, and raising funds.

artificial intelligence, play a pivotal role in enhancing the presentation of sports events. For instance, IBM's Watson system helped create diverse content tailored to modern viewing habits, such as real-time highlights and detailed analysis. The system also developed an AI-based audio analysis app to identify the most exciting moments of a match. Additionally, a Japanese company introduced AI-driven techniques to predict match

outcomes based on player data, enriching the viewer experience and enabling innovative marketing strategies to attract audiences (Hani Mahmoud, 2021).

According to (Johnson, L. 2020), (Al-Fahd, M. 2024), (Al-Qahtani, S. 2024), (Al-Johani, M. 2023), (Williams, T. 2024), and (Al-Salem, R. 2024), AI is used to analyze vast amounts of data related to player and team performance, helping coaches make better decisions. AI models have also been developed to predict match outcomes, which helps improve the coverage and marketing of sports events. According to (Al-Fawal, M. 2023), AI can provide a personalized viewing experience for each fan based on their interests and preferences.

Virtual reality (VR) has also influenced the way sports content is presented, making it more interactive, thereby providing marketing opportunities and creating new experiences for audiences (Kim, J., & Biocca, F., 2018). The concept behind VR technology is to enhance the fan experience, sports entertainment, and their interaction with their favorite sport (Statista, 2022). Most statistics indicate the growing role of virtual reality in the sports field to create new experiences for fans, as it places them in the midst of the action through a virtual world, providing access to information that those watching the game in the stadium or even on television would not have (Smith, R., 2020). The ways fans and supporters interact with football matches have also changed, with VR and 3D imaging technologies likely to turn the viewing experience into a unique event (Phelps, J. E., & Hartsell, T., 2021). These technologies allow fans to simulate the experience of watching a match in the stadium and even sit next to a friend who is on the other side of the world, watching the match in real-time (Johnson, M., 2023).

Augmented reality (AR) has helped integrate spectators into live broadcasts by replicating and enhancing the real environment with virtual elements that do not exist in reality. In other words, it blends the real scene that the user sees with the virtual scene

created by computer applications. One of the successful systems currently in use is the OZ Arena, the result of a collaboration between OZ Sports and RVX, a company specializing in cinematic visual effects and involved in many virtual reality projects. The system has successfully brought fans from their homes to live stadium viewings, allowing them to wear team uniforms, cheer in real-time, and sit in actual seats, making it a success in dynamically integrating spectators into live broadcasts (Thompson, J., 2022). This system can also replace the entire stadium, increasing the number of spectators in empty stadiums, and it comes with advanced audio support that enables fans to add their voices to the live broadcast. Servers then aggregate the fan voices using low-latency response synchronization and AI algorithms to manage sound levels (MarketsandMarkets, 2021).

The VAR (Video Assistant Referee) technology is one of the most prominent technologies used in football today. Many matches are now managed using VAR, allowing viewers to make judgments about the results of the game (Williams, A., 2022). Some websites and channels have capitalized on powerful marketing phrases to encourage the audience to watch the matches, such as the slogan "See for yourself if the goal is correct or not and watch the disallowed goal in 3D." Referees can also refer to it, especially for major decisions such as red card incidents, penalty kicks, and disputed goals (Horky, T., & Schmid, A., 2021). There are other systems that rely on robotics, such as the Tracab system developed by the Swedish company Chyron-Hego (Ratten, V., 2020).

Nanotechnology has also impacted every stage of media production, leading to a qualitative leap in content quality and the diversity of its applications. It has contributed to the development of high-density electronic components and high-speed execution, which has helped run editing programs, graphics, and audio-visual processing. Additionally, it has improved light sensors and electronic circuits used to process signals in cameras, enhancing the quality of lenses. The technology has made it possible to

eliminate the issues of ghosting and flare by applying a layer of microscopic particles to reduce light reflection on the lens, which causes these phenomena (Thompson, C., 2023).

Nanotechnology has also contributed to the creation of new types of LEDs with chip-on-board technology, offering high light intensity and lower energy consumption, which reduces the heat emitted by floodlights inside stadiums. Additionally, it allows for digital and wireless control of light levels, enabling gradual lighting adjustments to capture scenes in all their variations. Microphones have also become significantly smaller, more sensitive, and are known for their high sound quality, all while not requiring an external power source. These microphones are multi-directional, allowing for even and excellent sound capture from all angles, as needed (Smith, R., & Patel, S., 2022).

As previously mentioned, sports events have been widely used to increase national investment and have become a major industry contributing significantly to the national income. According to (Al-Dosari, F. 2021), hosting major sports events can attract foreign investments and boost economic growth, leading to an improvement in the quality of life for citizens. Additionally, it has contributed to an increase in the number of tourists and enhanced the country's image as a tourist destination. As a result, many countries have begun to increase investment in developing advanced sports infrastructure to host major events.

Given the significant importance of sponsoring global sports events, it is considered a long-term investment in building a strong national identity. It helps enhance the sense of belonging, build a positive image of the country, support the national economy, unite people, promote positive values, and develop infrastructure. As highlighted by several studies such as those by Brown, A. & Green, T., Al-Zahrani, A. (2023), Davis, M. & Carter, J. (2023), Ben Said, F. (2023), Evans, P. & Miller, R. (2023), Al-Khalidi, R. (2024), Al-Freidi, A. (2023), Roberts, A. (2023), Green, H. (2023), Al-Majidi, A. (2023), Clark, R. & Thompson, H. (2023), Al-Qahtani,

A. (2023), Taylor, S. & Anderson, L. (2023), Roberts, K. & Wilson, P. (2023), Al-Saeed, R. (2022), and Davis, M. (2022), the success of sponsoring global sports events strengthens the sense of belonging by associating the country's name with a major international sports event, which generates a sense of pride and belonging among citizens. They see their country represented on the global stage, strengthening social bonds. Sports events also play a vital role in building a positive image of the country, as they showcase its customs, traditions, and culture to the world, contributing to enhancing its status on the global map. The country benefits from hosting global sports events by promoting its tourist destinations, as visitors from all over the world flock to attend the events, boosting the economy.

Research Problem

By 2050, advancements in technology, especially artificial intelligence and digital media, are expected to revolutionize football. Viewers may gain the ability to control camera angles during matches, enhancing their viewing experience. Player training will also evolve, utilizing smart balls that provide feedback on ball control, shooting accuracy, and kick power. Robots could assist in simulating movements during training sessions.

To engage fans effectively, sports clubs will need to incorporate these technologies into their marketing strategies. The rise of digital fans, or "e-sports fans," presents an opportunity for teams to create specialized digital experiences, such as stadium apps and live presentations on smartphones, which will boost engagement and revenue.

Countries sponsoring global sports events can benefit significantly by promoting their attractions and products, drawing visitors, and enhancing their global image. Successful events can lead to full hotels, high-demand transportation, and increased patronage for local businesses, as seen in Qatar after the 2022 World Cup. These developments can strengthen a country's identity and status on the global stage.

This research addresses the question: How do digital public relations and artificial intelligence transform sports events into drivers of investment and national identity enhancement?

Research Importance:

This study aims to clarify the digital public relations tools and artificial intelligence technologies that can be effectively utilized in the marketing of sports events. It seeks to contribute to the development of the sports sector by offering innovative strategies for event promotion and investment attraction. Additionally, the research emphasizes the significant role of sports in shaping national identity, exploring how modern technologies can further enhance this impact. The findings will provide valuable insights for policymakers to design strategies that foster investment in the sports industry. Moreover, the study supports scientific advancement by opening avenues for future research at the intersection of sports and technology.

Research Objectives:

- Assess the impact of artificial intelligence and digital public relations on marketing FIFA World Cup Qatar 2022 .
- Analyze the relationship between these technologies and increased investments.
- Study their role in enhancing national identity.

Theoretical Framework

This study applies the Technology Acceptance Model (TAM), which posits that perceived usefulness and ease of use influence technology adoption. The model provides a lens to evaluate the public's acceptance of innovations such as AI and VR in sports marketing.

The Technology Acceptance Model (TAM) was developed by (Davis) in 1989 and it is considered one of the most widely used and applied models in the field of new technology adoption. It

posits that the acceptance of new technology by individuals or users is determined by two key variables: perceived usefulness and perceived ease of use, and that these variables are influenced by several external factors (Davis, 1989).

The model was developed based on the Theory of Reasoned Action (TRA), proposed by Ajzen and Fishbein in 1980, alongside the Theory of Planned Behavior (TPB). Both theories suggest that user behavior is rational, meaning users gather and evaluate available information systematically, while also considering the potential impacts of their actions (Ramayah et al., 2002).

In the original model, Davis explained the user's motivation to use an information system based on three factors: perceived usefulness, perceived ease of use, and attitude toward use. He assumed that the user's attitude is the primary determinant of actual use or non-use of the system (Davis, 1989). Figure (1) below illustrates the Technology Acceptance Model.

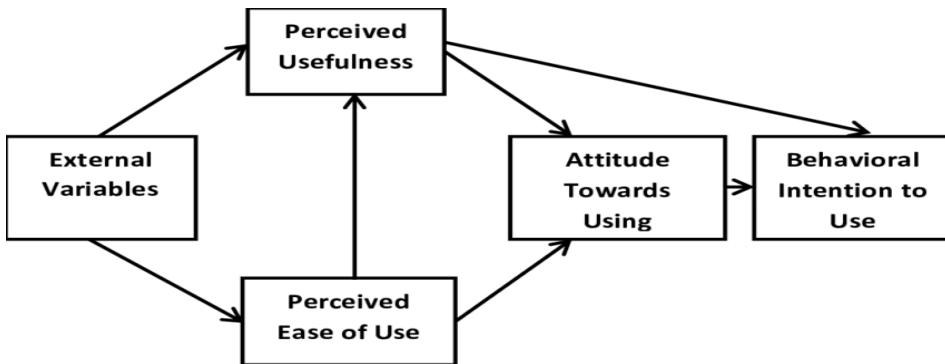


Figure (1) Technology Acceptance Model

The Technology Acceptance Model (TAM) introduces external and behavioral factors that help measure the acceptance of technology. It is also distinguished by its flexibility, which allows for the measurement of how the public and marketers accept technological innovations, such as artificial intelligence, virtual

reality, augmented reality, nanotechnology in equipment production, and high-quality imaging capabilities. These technologies significantly influence the audience and capture their attention (Smith, A., 2022), which in turn increases their engagement with the media outlets that use these technologies in their coverage. Therefore, these factors can be relied upon in marketing activities, focusing on the concept of perceived benefit, which is defined as the extent to which an individual believes that using a particular system will enhance their job performance (International Data Corporation (IDC), 2021).

Research Questions:

1. What are digital public relations tools which utilized in marketing FIFA World Cup Qatar 2022?
2. How were digital public relations tools contributing to enhancing the viewer experience and improving audience targeting, personalizing marketing messages for FIFA World Cup Qatar 2022?
3. How has digital public relations tools in FIFA World Cup Qatar 2022 contributed to attracting foreign investments?
4. How are digital public relations tools in FIFA World Cup Qatar 2022 used to build national identity?

Methodology

The research belongs to descriptive research, as it aims to describe artificial intelligence tools, modern technological techniques, and digital public relations tools used in marketing methods and media coverage of the Qatar 2022 World Cup matches, and how these techniques and tools contribute to improving the viewing experience and increasing the admiration and interaction of the public, which enhances the national identity of the country, increasing investments and a great benefit to support the national economy. Based on the results of previous



studies on the relationship of the public and their follow-up to football matches, the research community is represented by males of different Arab nationalities (18-50) who are football lovers, and who follow media coverage and sports analysis of matches, whether through television, the Internet, direct attendance, and an average or higher economic level (has the financial ability to purchase modern technology tools). The application was applied to a random sample of 500 researchers from the followers of the World Cup held in Qatar 2022, whether by physical attendance of the matches or following them through television or digital media.

Data Collection Tools:

1. **Content Analysis:** Examines media coverage and marketing techniques in the 2022 World Cup in Qatar, which hosted the 2022 FIFA World Cup, is an example of great success, not only for the unique and impressive organization in hosting this major global event but also for the greater achievement of serving as a bridge that allowed for cultural and civilizational interaction between the peoples of the world. This was achieved through an outstanding marketing and media plan to promote Qatar's participation in the tournament. The primary goal of the plan was to ensure that fans purchased tickets for the national team's matches early. The Qatar Football Association launched a promotional campaign on social media platforms as soon as FIFA announced the release of tickets. The Association also held coordination meetings with its commercial partners to discuss the promotional strategies for the national team's participation in this global event. Additionally, they participated in workshops organized by FIFA to learn more about the marketing and media side of the event.

The Qatar Football Association's Marketing and Communications Department launched a campaign using images of the national team

players on the streets to support the team in its first World Cup appearance on home soil, among its own fans. There was coordination with some government agencies to display images of the players on their main buildings. The Public Relations and Marketing Department organized many events to celebrate Qatar's participation in the World Cup at various schools and government institutions. Multiple campaigns were launched on social media platforms with diverse and varied content, emphasizing that Qatar was ready and prepared to welcome global fans, offering the best conditions for comfort and hospitality.

- 2- **Electronic Questionnaire:** Measures audience responses to technological innovations and marketing methods used in football matches during the 2022 World Cup in Qatar. The focus is on improving the viewing experience, increasing audience follow-up, and their interaction, which ultimately affects investment growth and strengthens national identity.

Results:

First: Digital PR tools and methods used in marketing the 2022 World Cup held in Qatar

The 2022 FIFA World Cup Qatar witnessed an unprecedented digital revolution, employing artificial intelligence technologies, smart analytics tools, advanced judging systems, as well as digital PR strategies to improve the viewing experience. This was also confirmed by the results of the study of (Al-Shammari, M. 2019), (Smith, J. 2021), (Martinez, L. 2023), and (Al-Saeed, R. 2023). , promote national investments, and consolidate national identity. In this analysis, he reviewed the most important of these methods and tools and how they were employed to achieve marketing goals to improve the viewing experience, which contributed significantly to increasing investments and strengthening national identity in the following:

1. **Public relations tools employing technological techniques and artificial intelligence tools in improving the viewer's**

experience and increasing his admiration and interaction with the matches of the Qatar 2022 World Cup:

The marketing campaigns of the Public Relations Department for the World Cup relied on showing the outputs of the Qatar 2022 World Cup with new technology to create an ideal experience in tourism and sports culture for the World Cup, which was established based on digital public relations tools, smart digital navigation science, the Internet of Sports Things, sports medicine, virtual reality, augmented reality and artificial intelligence, which opened up more ample future opportunities to drive more technologies developed in Qatar, the region and the world at large. The digital and real world has been incorporated and their meeting points have increased, allowing fans to interact with players and teams in new ways which confirmed by the results of the study of & (Thompson, R. 2023) (Buqami, N 2023-AI), and these methods have contributed to raising awareness of the event on a large scale, especially among young people, and providing richer and more interactive viewing experiences. It has also contributed to the personalization of content as viewing has become more personalized Which corresponds to the results of Roberts, A.) (2023, so fans can choose the content they want to watch and receive personalized recommendations. These methods are as follows:

1.1 Employing social media sites and websites

- **Live streaming on multiple platforms:** The matches were broadcast live on various social media platforms, such as Facebook, YouTube and X, allowing millions of viewers to follow the events from anywhere in the world. Interactive forums were also provided for fans to discuss matches, exchange views, and provide the latest news and information on sporting events.
- **Analyze fan sentiment:** World Cup-based management used artificial intelligence to analyze fans' comments on social media to understand their opinions and feelings towards the

event, teams, and players. and make personalized recommendations for fans. Negative and positive comments of the event were monitored and tracked on social media platforms, and quick and effective response to any comments or questions.

- **Social Media Marketing (SMM)**

- The following campaigns were launched on Facebook, Instagram, YouTube, X and TikTok
 - **Reach** to reach the advertising of the products of the sponsoring companies of the World Cup to the largest possible number of target audiences.
 - **Engagement** for the interaction of the target audience with these advertisements and knowing the behavior of the audience accurately, and its opinions on the techniques through which the matches are presented to identify the development of technologies and the use of more beloved technologies, to encourage the audience to participate and interact with the events of the World Cup and its sponsoring companies.
 - **Video views** to increase the number of views of the videos of the sponsoring advertisements for the World Cup, and to know the extent of the public's interest in them, and the marketer can know the result through the time period of the video that received a great turnout from the audience without getting bored and skipping the ad,
 - **Lead generation** to collect information and data of the target audience who interacted with those ads and build a potential customer base, in order to communicate with them when advertising similar products.

1.2 Mobile Apps:

There are many mobile applications that have been designed specifically to follow the World Cup matches and provide many services to the following public. It is represented in:

- **Official App (2022 World Cup Qatar):** Introduced a wide range of features, including match schedule, stats, news, and match tickets, the app also helped fans navigate easily in Doha by providing information on traffic and the best routes to reach stadiums.

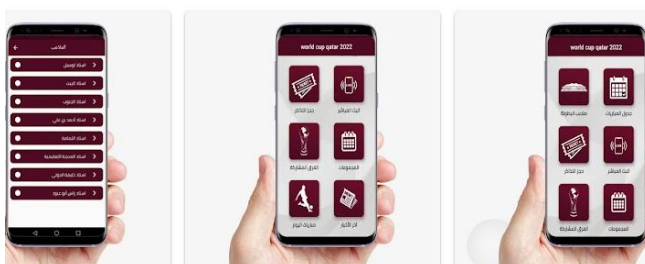


Figure (2) 2022 World Cup Qatar App

- **FIFA Player App**

FIFA in collaboration with the International Professional Footballers' Association (FIFPRO) has developed the FIFA Player app, which is being used for the first time in Qatar 2022. The app gives analytical performance metrics of physical exertion, readings of improved football metrics such as: receiving location and pressure on the player in possession, and the app provides an opportunity to access individual player performance data shortly after each match, so that players participating for the first time in the 2022 World Cup in Qatar can get insights on Their performance on the pitch.



- FIFA App+

The app uses artificial intelligence to view statistics, heat maps, and snapshots from different angles, all of which are available to media professionals and journalists alike. The FIFA+ app, which is used for the first time in the world at Qatar 2022, is a revolution in fan interaction.



Figure (4) FIFA App +

- FIFA App + Stadium Experience

It is an application for iOS and Android that the user needs to watch matches in Qatar, and be present in stadiums to make the most of them. By pointing the camera at the stadium, the app uses augmented reality to provide a full range of features. The app mainly displays the augmented reality interface with many possibilities. It is possible to see the players' "chips" on the field as if it were a video game, the alignment of the two teams and even details such as the offensive heat map or the distance traveled by each player. All this is shown on the pitch via AR. The interface

also has a built-in player so you can watch the best moments, replay the best goal situations or relive different moments from the game. The app also provided them with unique features that allowed followers and followers outside the stadium to live the experience of the World Cup. These features include watching the shot from different angles, activating augmented reality technology directly while watching, and accessing heat maps, statistics, opinions, and more.



- Figure (5) FIFA App + Stadium Experience

The most striking feature is the one that allows you to record yourself celebrating a goal, and the best celebrations are displayed on the large screens of the stadium when the user's team scores a goal.



- Figure (6) record celebrating a goal in FIFA App + Stadium Experience

DIRECTV also introduced its innovative metaverse streaming platform that allows enjoying different interactive environments inspired by real scenarios in Qatar, the host country of the World Cup. The metaverse was launched and many people had the opportunity to live an immersive experience and experience live content in a virtual environment. This experience combined live coverage, but in a virtual reality environment with a person's avatar, passing through a virtual stadium, standing on stage and interacting with other participants in a real immersive experience, and being able to see the match on a huge screen.

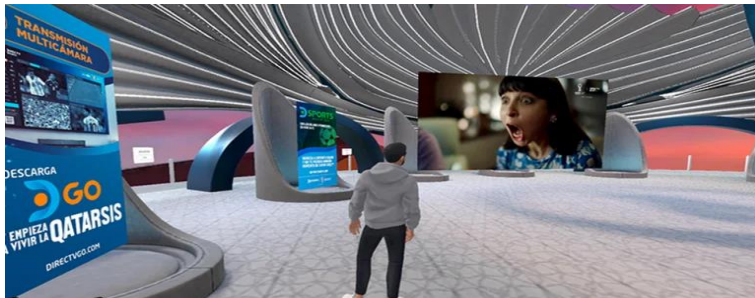


Figure (7) metaverse streaming platform in FIFA App + Stadium Experience

-Bonocle app for the blind

The app helps individuals with visual impairments enjoy the World Cup watching experience just like everyone else. It converts the digital content of the World Cup into Braille, allowing blind football fans to access and enjoy World Cup, and Bonocle's strength comes from its use of technologies that interact with smart devices. The app was developed as a tool for working, learning, playing and employing the sense of touch in Braille or voiceover, and Bonocle's technology allows interaction with it through buttons, movement and speech.



Figure (8) Technology Bonocle for the blind

- **Feelix App for the visually impaired**

American startup Feelix has developed touchscreen communication devices to transmit Braille-like messages to visually impaired fans during matches, as the company produces wearable haptic communication applications. The company was patented after providing users with real-time wireless communication via external devices.



Figure (9) **Feelix App for the visually impaired**

-**NavBuddy app for seamless indoor navigation**

The World Cup in Qatar introduced the application (NavBuddy) to achieve easy individual navigation without

getting lost, as the application provides information about all stadiums, hospitals and restaurants, and the fastest way to go to them, and it even makes internal navigation easier because it depends on real-time data, and users can also search for specific points such as seats, bathrooms, kiosks and parking near the entry gates near their seats, and directions of the fastest routes to their destination, and the application has a control panel that allows the place management to obtain analytics Transform the audience to extract insights and use them in crowd management to improve the event experience.



Figure (10) NavBuddy app for seamless indoor navigation

- ASAPP App

ASAPP stands for As soon as possible, a mobile application for delivering delivery in seats, transport stations and sports venues focused on niche markets within the stadium, making the experience of fans and visitors during the tournament easy and enjoyable, and available to download it on a smartphone for free.



Figure (11) ASAPP App

- Hayya App

This app helped fans plan their trips and navigate within the country easily. The app has helped the fan experience and contributed to improving the overall impression of the tournament.

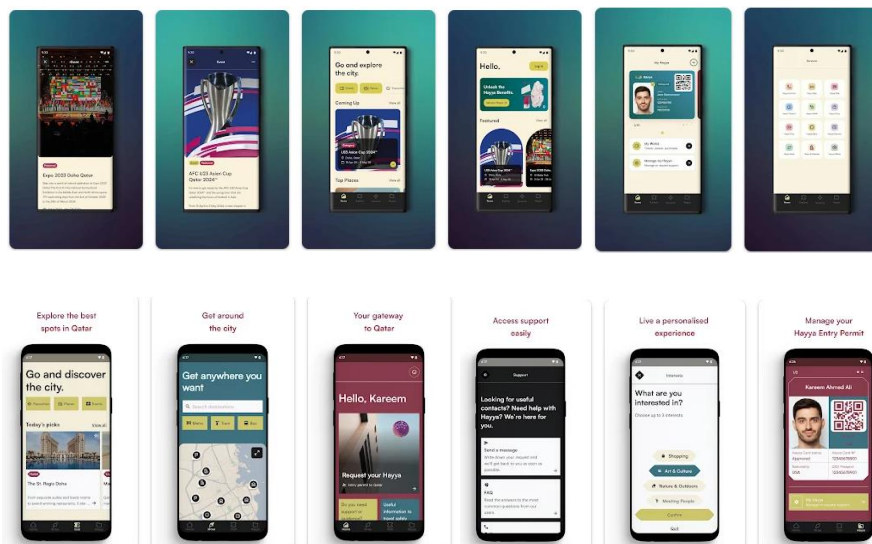


Figure (12) Hayya App

1.3 Sensory rooms

The World Cup in Qatar has sensory viewing rooms for young fans with sensory processing problems or autism. The room will provide a safe space for fans to relax and enjoy the matches, and plenty of additional tools to ensure an interactive experience, as the fidget tools and visuals help them stay focused in a quiet environment.



Figure (13) Sensory rooms in World Cup Stadium

1.4 Public relations tools to promote sustainability and innovation

Through its multiple tools, the Public Relations Department has been able to show Qatar as an innovative country that supports environmental sustainability by focusing in its promotional activities the following points of excellence:

- Stadiums to be dismantled after the tournament ends

Qatar has prepared eight stadiums for the World Cup: Al Bayt Stadium, Lusail Stadium, Education City Stadium, Al Janoub Stadium, Ahmed Bin Ali Stadium, Al Thumama Stadium, Khalifa International Stadium and Stadium 974. Qatar has adopted a sustainable strategy, as most of the stadiums are dismantled after the tournament to support Qatar's sustainable environmental vision and directions. It is a country with a small geographical area and a small population density. Therefore,

this large number of stadiums that will be used for one month and then abandoned is a great financial and geographical loss.



Figure (14) **Qatar** eight stadiums for the World Cup

World Cup stadiums are also equipped with giant high-resolution screens that display live match statistics, slow replay at different angles, and provide interactive information about players and teams. Fan zones equipped with interactive screens have also been provided that allow fans to interact with each other and share content via social media.

- EIP Palm Smartphone Charging Stations

The tournament has made it possible to charge fans' phones from EIP Palm stations scattered in many places, where they can sit under its shade and charge their phones quickly through the USB port or wirelessly, and also you can connect to Wi-Fi while waiting. All stadiums in Qatar are available on 5G internet at high speed, with screens containing a scannable barcode to connect to the network



Figure (15) EIP Palm Smartphone Charging Stations



Figure (16) 5G

- Electronic portals

The stadiums are equipped with electronic gates that count fans about their entry and exit from the stadiums. While devices were provided to monitor journalists and media professionals, as well as workers in the match and ensure that they have a permit. The monitoring technology also allows to ensure that the stadiums are empty before they close.



Figure (17) stadiums electronic portals

- Approved Monitoring System

Fans entering stadiums to watch World Cup matches were tracked by a system of 15,000 cameras with facial recognition technology to detect any potential security threat in the stands

during the tournament. It was operated and technically by the Aspire Command and Control Centre for the World Cup stadiums and extended to nearby train and bus stations. Drones were also used in all matches to estimate the number of fans present in the stadium.

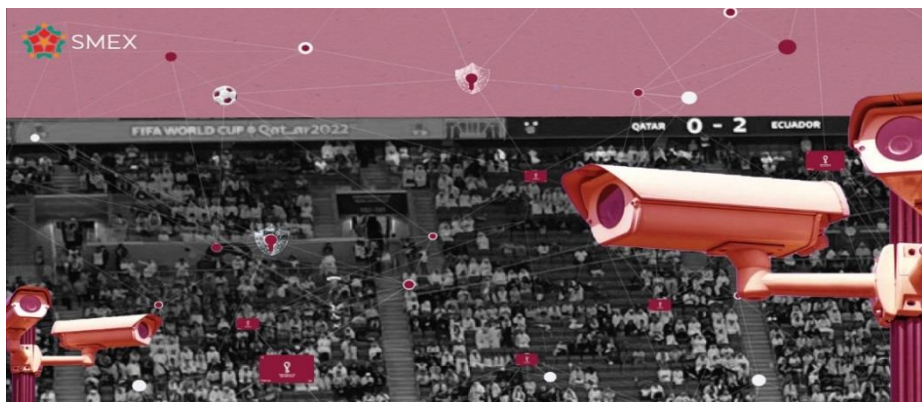


Figure (18) Face recognition screens

- **LED Stadium Lights More Energy Saving**

All stadiums in Qatar have LED lighting because it is energy-saving, non-toxic and has a longer lifespan.

- **Electric buses**

The World Cup in Qatar introduced carbon-free electric buses with the latest cooling technology to transport fans to and from their stadiums. These buses are easily accessible and considerate for people of determination who are experiencing mobility difficulties.



Figure (19) Electric buses

1.5 Augmented Reality and Virtual Reality:

During the World Cup, FIFA's Public Relations Department worked to provide technical content and analysis of matches and make it available in a simplified manner to the public through various means of communication, so that each match has a unique package of video data that is provided during and after the match in the form of augmented reality or graphs that provide a detailed and clear definition of all the important moments in the match. Augmented reality technology was also used to display interactive content to audiences.

Virtual reality experiences have been developed to showcase Qatari culture and tourist attractions, these technologies have strengthened national identity and contributed to the promotion of tourism, and three-dimensional imaging techniques have been used to revive historical monuments virtually. These technologies have been used to provide interactive experiences for fans, such as analyzing player performance, wearing their favorite team uniforms or touring the stadium virtually.



Figure (20) using Augmented Reality by audiences

1.6 AI bots and digital assistant services

Qatar has hired three robots powered by artificial intelligence systems, and the "smart investigator" is the first robot to face crowds at airports, border crossings and sensitive places. Developed by the Internal Security Forces (Lekhwiya), the robot is dedicated to detecting vital signs of the human body, pupils and body temperature, and integrating them into an algorithm for security uses. It is used to detect suicide bombers, secure sporting events for the tournament, discover hidden dangerous materials and secure state ports and various checkpoints. This device works by standing in front of the person to remotely scan the person's eyes and temperature, and then determine whether the person is nervous, using drugs or carrying an epidemic disease.

The second is a robot produced by the Qatari company "Al-Salam", which participated in the activities of "Milipol Qatar", and the specialization of these robots is to help patients in health centers and travelers at the airport to reach all needs.

The third is robots developed by the Qatari company «Al-Salam» as well, whose mission is to help the World Cup audience, and it has answers to all inquiries and provide immediate

information, and it also interacts with the language of the person who used it, and as soon as the question is asked, you see a smile on his face before he begins to meet the questioner's request. These robots have achieved great success, especially that the visiting person prefers to deal with the digital human than ask anyone on the street, for several reasons, the most important of which is that he knows that the digital person is loaded with the correct information.



Figure (21) AI bots and digital assistant services

In addition, dancing robots were used in fan zones to entertain fans, adding an innovative technological touch to the tournament.

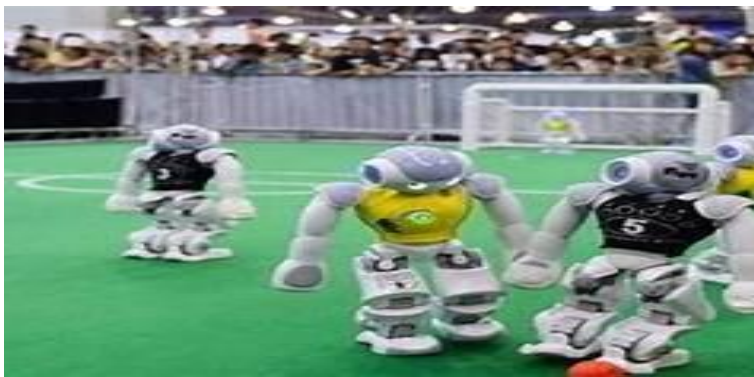


Figure (22) dancing robots

The "semi-automatic offside" system was also used through the robot "Line Man" that uses 10 cameras to track 29 physical points for each player with high accuracy, and was instrumental in calculating penalties near him.



Figure (23) Line Man robot

1.7 Nanotechnology:

Seven of the eight World Cup stadiums featured advanced cooling technology to keep the atmosphere cool inside the stadium. Qatar stadiums for the 2022 World Cup used advanced nanotechnology cooling technology supported by solar-powered cooling systems to ensure environmental sustainability designed to ensure a constant temperature of around 26 degrees Celsius, as power centers were built near the seven stadiums that push cold water into a pipeline connected to the stadium to ensure cool air in the seating areas of spectators and players. AI sensors were used to maintain optimal indoor temperatures, enhancing the comfort of players and fans, and contributing to the improved live viewing experience. Nanomaterials also have been used to disinfect surfaces and eliminate germs, and in the manufacture of artificial turf and benches to provide a better experience for viewers.



Figure (24) Using nanotechnology cooling technology inside the stadium

1.8 Interactive screens:

World Cup stadiums are equipped with giant high-resolution screens that display live match statistics, slow replay at different angles, and provide interactive information about players and teams, fan zones equipped with interactive screens that allow fans to interact with each other and share content via social media, and interactive screens have been used in metro and bus stations to guide fans and provide information on the match schedule.

1.9 Artificial Intelligence

- AI has been used to analyze vast amounts of textual data on social media to understand audiences' opinions about the event, and identify the strengths and weaknesses of marketing campaigns. Interactive social media campaigns such as "#SeeYouInQatar" have also been launched. It has contributed to attracting fans from all over the world and increasing global interaction with the tournament. Data analytics techniques were used to tailor content to audiences' interests. Fan demographic and behavioral data was used to deliver personalized offers, such as providing discounted tickets to certain groups. AI-powered live streaming platforms were also used to deliver a personalized

viewing experience that enhanced the viewing experience by providing multiple angles and instant statistics, and virtual reality technology was integrated into the live stream to enable a 360-degree viewing experience.

- Video Assistant Referee (VAR)

The technology relies on real-time data analysis using artificial intelligence algorithms and has been enhanced with player motion analysis systems and pattern recognition tools in live footage to deliver accurate refereeing decisions, which improved sports fairness and increased transparency, contributing to enhancing the viewing experience.



Figure (25) Video Assistant Referee

- Semi-automated intrusion technology (SAOT)

FIFA has used a new system to detect the location of football and help referees make offside decisions accurately and quickly. The technology relies on artificial intelligence to identify offside situations with high accuracy through 12 advanced cameras and an in-ball sensor, which provides an automatic alert to offside referees every time the player

commits this error, reducing reliance on lengthy replays with VAR technology to determine whether the player is offside or not. This technology has accelerated refereeing decisions and reduced errors, boosting fans' confidence in the integrity of matches.



Figure (26) Semi-automated intrusion technology

1.10 Smart Flight Ball

The ball has accurate sensors that improve the accuracy of offside and penalty decisions, supported the intelligent analysis of matches and contributed to the provision of accurate statistics, and equipped with wireless communication systems to transmit data to refereeing systems in real time.



Figure (27) Smart Flight Ball

1.11 Influencer Marketing:

Influencers' recommendations significantly influenced purchasing decisions among audiences, especially young people, and influencers also contributed to building online communities around the event, increasing interaction and communication among fans.

2- Public relations methods used to promote FIFA World Cup Qatar 2022 events to promote investments and support national identity

Qatar successfully delivered an exceptional opening ceremony for the 2022 FIFA World Cup, using a range of innovative methods to enhance its national identity and increase investments in various sectors. This was confirmed by the results of the study (Al-Dosari, F. 2021), Through these methods, Qatar succeeded in achieving multiple goals through the opening ceremony, for the entire duration of the World Cup, attracting investments through tourism marketing, technology, sustainability, and global partnerships, and strengthening its national identity by highlighting Arab culture and heritage. The main objective of the opening ceremony of the 2022 FIFA World Cup Qatar, according to FIFA, is to bring all the peoples of humanity closer together and overcome differences through humanity, respect and inclusiveness. The opening ceremony lasted 30 minutes and consists of 7

segments performed by international artists and blending Qatari traditions with global culture, while celebrating the 32 participating teams, former World Cup host countries, tournament volunteers, and hundreds of performers, musicians and dancers, will encourage diversity and inclusion. Therefore, the researcher believes that the concert succeeded in integrating **sports, culture, and economy** into one global event. The following is a detailed analysis of the methods used by the Public Relations Department responsible for the opening ceremony and organization of the entire sporting event:

2.1 Public relations methods and tools used in World Cup and helped increase investments

Many factors contributed to improving the country's image as an attractive investment destination, which encouraged investors to inject more money, attracted more investments in various sectors, diversified sources of income and increased economic growth, as this diversification contributed to reducing dependence on oil, and contributed to creating new job opportunities, which led to improving the standard of living for citizens, and contributed to raising the country's position at the regional and international levels and improving sports and tourism infrastructure. These factors are as follows:

- Tourism marketing to Qatar through the opening ceremony, where the ceremony presented panoramic views of various landmarks of Qatar such as The Pearl, which is considered a high-end tourist and investment destination, Souq Waqif, which is the traditional market that attracts tourists, Katara, a cultural district that combines arts and heritage., Museum of Islamic Art, which encouraged international tourism. Aerial photography techniques of Qatar's beaches and desert were used in an attractive way, stimulating ecotourism and adventure to highlight Qatar's urban beauty and nature, and increasing investor interest in the tourism sector.

- Relying on technology and innovation, hologram display techniques and artificial intelligence were used to attract public attention and enhance Qatar's image as a technologically advanced country, displaying holograms and modern visual symbols representing innovation and sustainability, attracting technology companies to invest in Qatar.
- Supporting sustainability and environmental projects, eco-friendly stadiums such as Stadium 974 made of recyclable shipping containers were highlighted, sending a strong message to investors about Qatar's interest in sustainability and green construction.
- Presentations on clean energy projects such as sustainable stadiums based on solar energy, electric and sustainable electric bus transport used in the tournament, and Lusail Smart City, which represents a model of sustainability, encouraging investments in the renewable energy sector.
- Entertainment areas such as fan zones, music festivals, and laser shows were promoted, increasing Qatar's appeal for sports tourism.
- Contracting with international production companies to present the opening ceremony at a high-quality cinematic level, using modern technologies that made it a unique visual experience, and Qatar also attracted international production companies to film the event, which helped promote the film and media industry in the country, which strengthened Qatar's position as a destination for media and artistic production.
- The opening ceremony was broadcast in more than 200 countries, giving Qatar a huge promotional opportunity as a global investment destination, and the tournament was broadcast on international channels, giving Qatar an opportunity to market itself as an investment and tourism

destination around the world. Media broadcasting has also attracted more major companies to advertise and sponsor major sporting events in the future.

- Collaborations with major companies such as Adidas and Nike for sportswear care, Coca-Cola and McDonald's for food and beverage care, Hyundai and Toyota to support transportation and infrastructure, Visa and Virgin Mobile to promote communications and technology; these partnerships have strengthened Qatar's position as a profitable investment destination, boosted the local economy and increased the flow of investments.
- The presentation of Qatari products within the tournament, which supported the small and medium business sector in Qatar, and the development of products and services specifically for the event, increasing their attractiveness to consumers.
- Targeted digital marketing was used to increase sales across online stores, while providing secure and convenient electronic payment options, which increased the reach of products to new markets and encouraged online shopping.
- Qatar has collaborated with local companies to organize various events in the food and hospitality industry, opening up opportunities to increase local investment in the tourism and hospitality sector.
- Partnership agreements have been signed with global companies such as Microsoft and Google, reflecting Qatar's interest in boosting its investments in technological innovation and artificial intelligence.
- The use of international advertisements at the ceremony to promote Qatari brands in the real estate, tourism, and financial services sectors, strengthening Qatar's economic position on the global stage.



- Integrated tourism packages have been developed that include match tickets, accommodation and travel, and offer unique tourist experiences, such as visiting historical and cultural monuments, making Qatar an attractive tourist destination, attracting tourists from around the world.
- New residential complexes and hotels were built. These investments have contributed to the strengthening of the local economy and made Qatar an attractive investment destination in the field of real estate.

2.2 Methods and tools of public relations in World Cup and their impact on strengthening national identity

Qatar has used technology to showcase its culture and heritage, contributing to the consolidation of its national identity on a global level. Digital initiatives have helped build a positive image of Qatar as an advanced sports and cultural destination. The production of digital promotional content has helped to showcase Qatar's cultural and historical diversity.

Many factors have contributed to strengthening the national identity of the masses, increasing the sense of belonging to the homeland, and building a positive image of the country at the regional and international levels, which was clearly reflected in the great public enthusiasm behind the national team for all fans, and in the collective celebrations that contributed to boosting morale and increasing the sense of belonging, and left a sustainable legacy through new infrastructure and social projects. This is consistent with many of the results of previous studies such as Al-Khalidi, R. (2024). This experience can be used to organize other major events and strengthen national identity in other countries. These factors are as follows:

- Outstanding organization High level of efficiency and professionalism. The opening scene began with the traditional tent. The stadiums are designed in the shape of a

traditional Bedouin tent (such as Al Bayt Stadium), and Lusail Stadium hosted the final and is an architectural masterpiece. This made the tournament reflect Qatari culture even in infrastructure, and symbolize generosity and Arab hospitality.

- Combining Qatari heritage and global culture, Qatar relied on highlighting its Arab and Islamic culture through decorations, and traditional costumes in some performances, such as thobe, ghutra and aqal, in exchange for modern clothes worn by international participants, which reflects the interaction between cultures, and artistic performance by presenting Qatari folk dances, such as the Qatari ardha, which represents national strength and unity, which gave the ceremony a distinctive character.
- Introducing traditional figures such as commentator Ghanem Al-Muftah, a Qatari Goodwill Ambassador who recited verses from the Holy Quran, which showed Islamic values and openness to other cultures, and presented a positive image of Islam and a global message of tolerance.
- The concert opened with the official song "Dreamers" sung by South Korean pop star and BTS member Jungkook, and Qatari singer Fahad Al-Kubaisi, and the concert also included international musical performances such as the singing performance of the famous singer John Bellagio and the Qatari singer Dana, which gave the concert a global character. This helped promote Qatar's cultural image as a country that accepts and celebrates cultural diversity.
- He witnessed a dialogue between the famous American actor, Morgan Freeman, and the young Qatari, Ghanem Al-Muftah, who was born with a rare disease that prevented the growth of his lower body. "We gather here as one big tribe and the land is the tent where we all live," Freeman said.
- The use of Qatari symbols such as the Arabian falcon, Arabian horses and traditional dhow ships represent an

important part of Qatar's history, reinforcing the Qatari identity in front of a global audience.

- Promoting the Arabic language through the use of the Arabic language in visual and audio performances, as well as translation into other languages, in addition to introducing Nabati poetry in audio clips, which is part of the Gulf cultural heritage, and using Arabic calligraphy in artistic performances and digital screens, which contributed to spreading Arab culture and strengthening national belonging.
- Highlighting Arab hospitality and authentic values, the ceremony focused on the idea of "hospitality" as a core value in Qatari and Arab culture, highlighting Arabic coffee, Qatari majlis, and traditional customs in receiving guests, reflecting the hospitable nature of the Qatari people.
- Highlighting the success stories of local athletes helped build a sense of pride in national achievements that became a source of inspiration for young people and sparked in them a spirit of competition and determination.
- Highlight Lusail City, which will be the hub of future major events, such as the Olympic Games or world sports tournaments.
- The event was used to market local products such as Qatari cuisine and handicrafts in several event areas, where Qatari dates and local perfumes were presented, giving visitors an opportunity to learn about and interact with Qatari heritage.

Second: Survey Results

According to **FIFA Association (FIFA, 2022)** Five billion fans have interacted with the FIFA World Cup Qatar 2022 around the world, an unprecedented record far exceeding what was achieved in previous editions, as the figures confirm that the 2022 edition is the greatest in the tournament's 94-year history.

FIFA's social media channels also saw a heavy following, with total engagements (811 million) up 448% from 2018, with 3.6 billion views of relevant videos counted during the tournament, representing an increase of 202%. The analysis also shows an increase in the consumption of content related to the tournament, reflecting the evolution of the broad media landscape, which includes terrestrial, satellite and digital/online television broadcasting, social media platforms, and platforms owned and operated by FIFA (FIFA, 2022).

When the electronic questionnaire was applied to 500 researchers from the followers of the World Cup, the results were as follows:

1. Factors Driving Respondents to Follow Sporting Events:

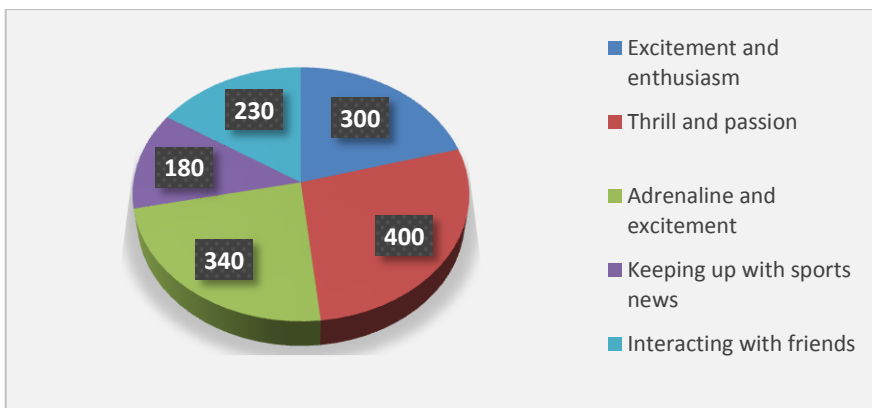


Figure (28) Factors for Following Sporting Events

Sporting events are among the most attractive social phenomena worldwide. The psychological, social, and cultural factors that drive viewers to follow sports events are diverse. Respondents confirmed that their interest in sporting events is linked to their affiliation with a team or their country, as they associate the success of the team or athlete they support with their personal success. This enhances their self-confidence

and gives them a sense of achievement. The results also showed that entertainment and recreation are among the most significant reasons for watching football matches. Sports events are characterized by excitement and intense competition, which provide viewers with a dose of adrenaline and thrill, offering an opportunity to escape the daily routine and immerse themselves in another world filled with enthusiasm and adventure. The results revealed that sporting events encourage social interaction and communication with others who share the same interest.

2. **The Most Notable Technological Features That Caught the Attention of Respondents During the Coverage of the FIFA World Cup Qatar 2022, and Enhanced the Viewing Experience**

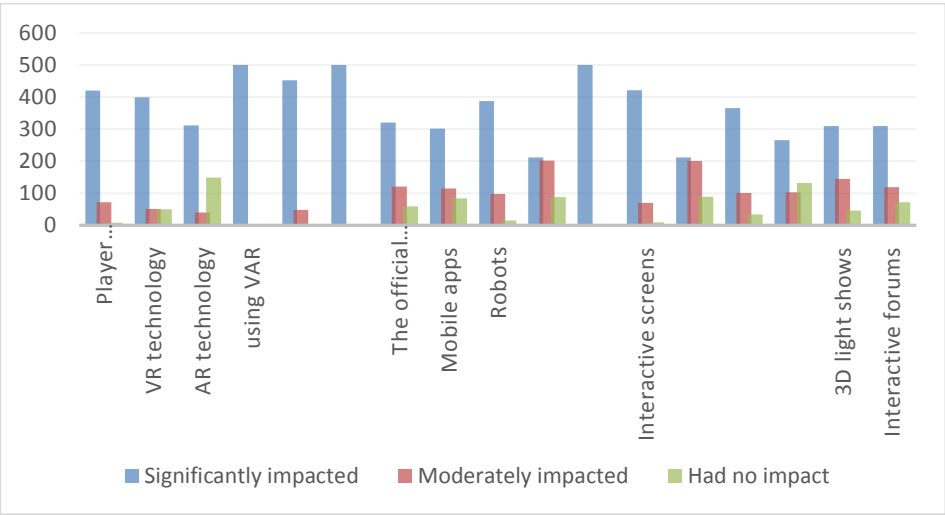


Figure (29) Technological Features That Caught the Attention of Respondents in the Coverage of FIFA World Cup Qatar 2022

Respondents confirmed that the technological advancements used in the coverage of the FIFA World Cup Qatar 2022 had a significant impact on their enjoyment and engagement with the event. These advancements greatly enhanced their viewing

experience by increasing excitement, providing high-quality viewing, helping them understand the game in greater detail, and encouraging interaction between viewers and the sporting event.

The Impact of These Technologies on the Behavior of Respondents:

A. Increased Engagement and Interaction:

1. Respondents confirmed that virtual reality (VR) and augmented reality (AR) allowed them to feel like they were part of the event this is consistent with the results of (Statista, 2022), whether by wearing VR headsets to attend the match from special seats or by using AR applications to display player statistics in 3D ,this is consistent with the results of (Thompson, J., 2022) study. This enhanced their excitement and interaction. Which corresponds to the results of (MarketsandMarkets, 2021)
 - Interactive voice commentary encouraged them to participate in discussions and express their opinions . Which corresponds to the results of (Thompson, R. 2023) and Al-Buqami, N. (2023).
 - Interactive competitions increased their engagement with the event and with each other. Which corresponds to the results of (Al-Asiri, N. 2023), and (Al-Qahtani, A. 2022).
 - Interactive forums provided a platform for them to discuss the matches and exchange views.

B. Enhanced Viewing Experience:

- The survey results indicated that high-quality, multi-angle live broadcasts allowed them to analyze plays more deeply and enjoy a richer viewing experience.
- Giant screens provided additional information about the match, which increased their enjoyment.

- Official applications provided all the necessary information about the matches, making it easier to follow them.
- The use of robots in stadiums and public areas helped provide services and facilitate movement.
- Cooling technology ensured comfort for both players and spectators in the hot weather conditions.
- Screens available at metro stations and bus stops helped them navigate the city more easily.

C. Changing Viewing Habits:

- New technologies encouraged more individual viewing of matches through smart devices and VR, but at the same time, they enhanced social interaction through online forums and groups.
- Respondents became more interactive with sports content, as they were able to participate in polls, vote for the best plays, and comment on performances.

Acceptance of Technology by Respondents:

Overall, the technologies used during the FIFA World Cup Qatar 2022 received widespread acceptance from respondents, especially among the youth who are more accustomed to technology. These technologies provided them with unique and memorable experiences. However, they also expressed some challenges they encountered, including:

- Some technologies, such as VR headsets, were too expensive for some respondents.
- Some technologies required a high-speed internet connection, which may not be available in all areas.
- Certain technologies required learning new skills.

3. Aspects That Respondents Believe Contributed to the Success of the FIFA World Cup Qatar 2022 in Increasing Investments:

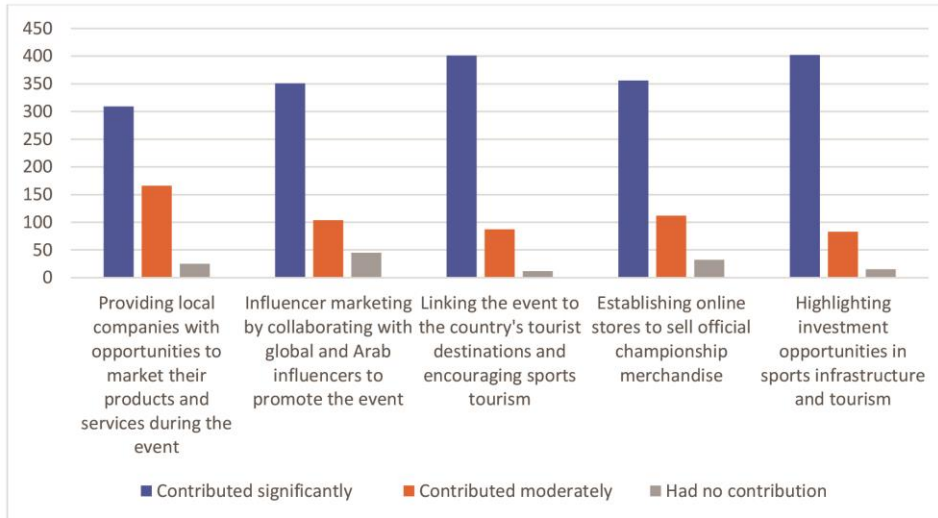


Figure (30) Respondents' Views on the Factors Contributing to the Success of the FIFA World Cup Qatar 2022 in Increasing Investments

When analyzing respondents' opinions on the contribution of media coverage and marketing methods for the FIFA World Cup Qatar 2022 in attracting investments, it was found that local fans felt proud and connected when they saw their local brands associated with a major global event. This strengthened their sense of national identity and they believed it supported the local economy. On the other hand, international fans were able to discover new products and services through these partnerships, opening new avenues for trade and investment.

Respondents confirmed that influencer marketing played a significant role in increasing investments. They generally trust the recommendations of influencers they follow, which made marketing messages more impactful. These influencers can reach

a wide and diverse audience, thereby increasing the spread of marketing messages. Additionally, respondents stated that linking the event with tourist destinations contributed greatly to increasing investments. They sought a holistic experience that went beyond simply watching the matches. Connecting the event with tourism destinations provided them with this experience, allowing them to discover new cultures and experience different traditions.

Respondents also expressed their satisfaction with the ease of purchasing official merchandise from online stores, where a wide range of products was available to meet their needs. They also believed that the success of the sporting event led to increased confidence in the local economy, attracting more investments. Moreover, they felt that investments in infrastructure and other sectors could create new job opportunities.

4. Aspects That Respondents Believe Contributed to the Success of the FIFA World Cup Qatar 2022 in Strengthening National Identity

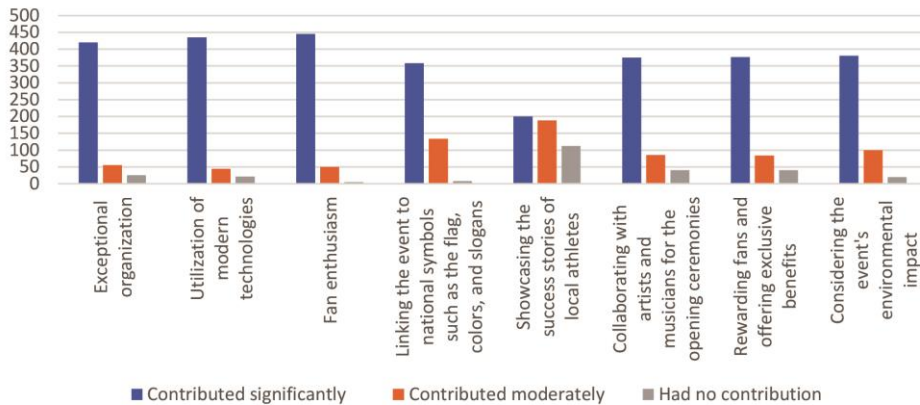


Figure (31) Respondents' Views on the Factors Contributing to the Success of the FIFA World Cup Qatar 2022 in Strengthening National Identity

Respondents believe that the media coverage and marketing strategies used during the FIFA World Cup Qatar 2022 significantly contributed to strengthening national identity through a variety of factors that positively affected them. These factors helped build a positive image of the country, increased the sense of belonging and loyalty, and fostered optimism about the future. These factors include the exceptional organization of the sporting event, where respondents felt pride and admiration for the efficient and effective management of the event, which enhanced their confidence in their country's ability to host such major global events. Respondents saw that the remarkable organization presented a positive image of the country, contributing to changing the traditional perceptions of it abroad.

Respondents also confirmed that the use of modern technologies made them feel like an integral part of the event, increasing their connection to it. These technologies showcased the country's development and its focus on innovation, which made them proud of their nation. Additionally, respondents emphasized the significant contribution of the public's enthusiasm in strengthening national identity. They felt a sense of unity and solidarity among the community, which reinforced feelings of belonging and national unity. Therefore, it can be said that the massive public enthusiasm helped in promoting the image of the country as a vibrant and passionate nation.

Moreover, respondents confirmed that linking the event to national symbols helped solidify national identity in their minds, especially among the youth. This connection increased their attachment to and pride in their country, as well as their pride in the achievements of local athletes. Respondents also pointed out the role of collaboration with famous artists and musicians in highlighting the country's cultural identity, presenting an authentic image of the country's heritage and traditions.

As for rewarding fans and offering them exclusive benefits, respondents felt appreciated by the organizers for offering exclusive perks, which contributed to increased participation and interaction with the event. The results also highlighted the contribution of addressing environmental issues to strengthening national identity. The event set an exemplary model for environmental sustainability, raising respondents' awareness of the importance of preserving the environment.



Conclusion:

This study has explored the transformative role of digital public relations tools, new technologies, and artificial intelligence in leveraging sports events as engines for investment and national identity reinforcement. Through an in-depth analysis of the FIFA World Cup Qatar 2022, the research highlighted how strategic digital communication, AI-driven engagement, and technological innovations contributed to maximizing economic returns, enhancing global brand positioning, and fostering national pride.

The findings indicate that the integration of digital PR strategies with AI-powered analytics and immersive technologies such as augmented reality, virtual fan experiences, and real-time data-driven interactions has significantly elevated audience engagement, sponsor value, and the overall perception of Qatar as a global sports hub. Furthermore, the study underscores the potential of these tools in crafting compelling narratives that strengthen national identity by showcasing cultural heritage, technological advancements, and organizational excellence on the world stage.

In conclusion, the success of the FIFA World Cup Qatar 2022 serves as a model for future mega-events, illustrating that a well-executed digital PR strategy, backed by cutting-edge technology and AI capabilities, can turn sporting events into powerful catalysts for investment and national branding. This research emphasizes the need for continuous innovation in digital public relations and AI-driven communication strategies to sustain and enhance the long-term impact of global sports events. Future studies may further investigate the scalability of these strategies in different cultural and economic contexts, offering insights into their adaptability across diverse sporting landscapes.

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