RESEARCH ARTICLE

Importance-Performance Analysis of Korea's Relay Broadcast of the 2022 FIFA World Cup : A Sociological Perspective on Media and Culture Identity

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Abstract
This study aimed to analyze the importance and performance of various elements of Korea's relay broadcast of the 2022 FIFA World Cup to assess viewer perceptions and provide guidance for future broadcasting improvements. An online survey was conducted in January 2023 with 490 Korean individuals who had watched the World Cup relay broadcasts. The questionnaire contained 39 items evaluating the importance and performance of 19 broadcasting sub-factors. Data were analyzed using frequency analysis, reliability testing (Cronbach's α), descriptive statistics, paired t-tests, and Vavra's revised Importance-Performance Analysis (IPA). Results showed that for 17 out of 19 sub-factors, perceived importance significantly exceeded actual performance ($p < .001$), suggesting service gaps. No significant difference was found in the sub-factors "impression of the relayer" and "viewer corner participation." Based on Vavra's revised IPA, 10 sub-factors were identified as important performance factors, 5 as basic factors, 4 as unimportant performance factors, and none as excitement factors. These findings indicate the need to enhance relayer professionalism and viewer interaction tools. Strategic improvements in key areas can increase satisfaction with sports broadcasting, particularly in large-scale events like the FIFA World Cup and the Olympics.

Keywords
Broadcasting, IPA, Viewers, Korea, Satisfaction, Sports

INTRODUCTION

The 22nd Fédération Internationale de Football Association (FIFA) World Cup was held in Qatar between 20 November and 18 December 2022. This was the first World Cup held in the Middle East and the Arab region and the second one held in Asia after the 2002 World Cup, which was jointly hosted by South Korea and Japan. The 2022 World Cup was also the first World Cup held in winter, considering Qatar's hot weather. Today, the FIFA World Cup is the most beloved sporting event worldwide. Consequently, Qatar's World Cup received worldwide attention.

Since people all over the world are captivated by the World Cup, they desire to watch it directly from the stadium. However, owing to limited seating capacity and physical distance from stadiums, most football fans have no choice but to watch the game through relay broadcasts. With the development of information technology (IT), sports broadcasting has also evolved. In this study, "relayer" refers broadly to the on-screen commentator or broadcaster who narrates and explains the game during live relay broadcasts. Sports relay broadcasts show the game, the play of players, and the performance of teams in real time, providing viewers an experience similar to that in the stadium without being in the stadium. They allow people to enjoy sports, draw public attention, and foster a sense of belonging and cultural significance.

The development of broadcasting technology has improved the quality of relay broadcasting and made it more interesting to watch. Broadcasting companies and video providers are making great efforts to improve the quality of relay broadcasting. As an IT powerhouse, Korea is employing various

broadcasting technologies to enhance viewers' experience. Notably, sports and media have always had an impact on each other (Bellamy, 2009). Considering this, it is meaningful to analyze viewers' perception of sports relay broadcasting and seek ways to improve its quality (Lee, 2021). In this study, the term "relayer" refers broadly to the commentators and anchors who verbally deliver the match proceedings, provide play-by-play narration, analyze game situations, and often serve as the primary communicators between the match and the viewers.

In the early days, the FIFA World Cup was broadcasted on radio. Its television broadcast began from the 1954 World Cup, and in the 1966 World Cup, replay technology was introduced so that key scenes could be seen again. Global satellite broadcasting and color television broadcasting of World Cup matches began from the 1970 World Cup. With the start of television broadcast from the 1954 World Cup, FIFA began to earn a sizeable revenue from selling the broadcasting rights for the World Cup matches (Chisari, 2006). FIFA used the profits to support and globalize football, and it globalized the World Cup through satellite broadcasting. However, while World Cup broadcasts were traditionally delivered to the public through TV and radio, they are now increasingly accessible via real-time streaming services on smartphones and computers. In South Korea, three major broadcasters (KBS, MBC, and SBS) competitively strive to provide better broadcasting services.

The FIFA World Cup is the largest sporting event, and it exerts a significant impact on not only football but also popular culture (Horky, Clavio & Grimmer, 2020). The Qatar World Cup ended with about 1.5 billion people watching the final, entertaining soccer fans around the world for a month (Alvarez et al., 2024). Therefore, every broadcasting company endeavors to broadcast the World Cup. These companies are building colorful and clear screens using various cutting-edge IT technologies. Relay broadcasts of the Qatar World Cup incorporated metaverse platforms, AI-based match predictions, and multiple audio streams (Plumley & Wilson, 2022).

This study analyzes the importance and performance of various aspects of the broadcast of the 2022 FIFA World Cup, held in Qatar. By employing an Importance-Performance Analysis (IPA) on the different aspects of the Qatar World Cup broadcast, this study identifies aspects that can be improved in future sports broadcasts. The IPA is a simple and effective analysis that can show areas for improvement and facilitate the establishment of marketing strategies based on consumers' direct evaluation of factors. This analysis can be of great help to working-level staff (Deng, 2007; Hansen & Bush, 1999). The IPA grid derived by analyzing the two dimensions of importance and performance can identify priority areas that require improvement as well as under- and over-performing areas (Matzler et al., 2004). Therefore, the results of an IPA can help establish marketing strategies focused on increasing customer satisfaction (Lee, 2021).

Several studies have been conducted on sports relay broadcasting by using IPA. Lee (2021) analyzed and compared the importance and performance of different aspects of Korea Baseball Organization relay broadcasting using traditional and modified IPA methods. Veal & Darcy (2014) analyzed and compared the internet broadcasting quality of the National Basketball Association and the Commonwealth Broadcasting Association using the revised IPA. Lee (2021) studied the public confidence of the commentators of the 2014 FIFA World Cup using IPA and multidimensional scaling techniques.

There have also been numerous studies on the broadcast of the FIFA World Cup. Through a content analysis, Horky, Clavio & Grimmer (2020) compared different elements of the television broadcast of the 2014 World Cup in Germany, Ghana, Portugal, and the United States. Gratton & Solberg (2007) calculated the economic effect by analyzing the number of viewers of the relay broadcasts of World Cup matches. Chisari (2006) reported a study on the emergence and development of media in the World Cup.

Therefore, there have been numerous studies on sports relay broadcasting using IPA and the broadcasting of the FIFA World Cup. However, research remains scant on improving sports broadcasting, specifically by investigating the importance and performance of different aspects of broadcasting the FIFA World Cup. During the COVID-19 pandemic, many professional and international sports events were held without spectators. Spectators highly interested in watching sports were not allowed to attend matches in stadiums, therefore they had to watch match broadcasts. Considering this unique context, it becomes imperative to empirically analyze how

viewers perceived the relay broadcast of the 2022 World Cup and improve the quality of sports broadcasting. To deepen the sociological lens, this study incorporates theories such as media framing, cultural imperialism, and social identity theory. These perspectives provide insight into how media structures influence viewer perceptions and reinforce or challenge national identity through global sporting events (Entman, 1993; Tomlinson, 1991; Tajfel & Turner, 1979). While several studies have used IPA to assess traditional sports broadcasting, few have applied the revised IPA framework to football broadcasting in the context of new media environments. This study addresses this gap by focusing on the 2022 FIFA World Cup, where digital participation and multiscreen viewing have transformed the broadcasting landscape. For instance, recent research shows that social media interactions during live sports events significantly enhance viewer engagement and sense of co-presence (García & Murillo, 2022). Moreover, second-screen usage is increasingly common, with audiences consuming content across multiple platforms simultaneously, thereby influencing satisfaction and media expectations (Pizzo et al., 2021). Unlike earlier IPA-based studies that focused primarily on linear TV formats or domestic sports (Lee, 2021), the present study incorporates these emerging media trends to reflect evolving viewer behavior and technology adoption.

MATERIALS AND METHODS

Vavra's Revised IPA

The IPA was developed by Martilla & James (1977). It has been used in many studies because it is easy to understand and can provide clear implications for key service factors. However, in the IPA grid, most factors tended to be concentrated in Quadrants I and III. Kano et al. (1984) pointed out the problems in the IPA developed by Martilla & James (1977) and suggested a three-factor model to improve them. Vavra (1997) presented a way to operationally quantify Kano et al. (1984)'s theory.

In a traditional IPA grid, the performance level is set on the X-axis and importance level on the Y-axis (Vavra, 1997). In contrast, in Vavra's revised IPA, explicit importance measured based on consumers' direct evaluation is set as the X-axis. Measured by deriving the regression coefficient of the overall satisfaction from each factor, implicit perceptions captured in the study and should be interpreted with caution.

importance is set as the Y-axis (Vavra, 1997). For each sub-factor, a bivariate linear regression was conducted with overall satisfaction as the dependent variable and the performance score of the sub-factor as the independent variable. The resulting standardized beta coefficient was then used to represent implicit importance. For instance, if the regression equation is $Y = \beta X + \epsilon$, where Y is overall satisfaction and X is the performance of a sub-factor, the value of β quantifies its implicit importance. Notably, statistically derived implicit importance has higher predictive validity than directly measured explicit importance. Moreover, it is persuasive because, among several factors, it selects those with a comparative advantage in contributing to the overall performance level as strategic opportunity factors (Ko, 2013). Therefore, we utilize the Vavra (1997)'s revised IPA to identify improvement areas in broadcasting the FIFA World Cup. Many previous studies have also used this analysis by determining the explicit and implicit importance of different aspects of broadcasting.

Participants

Using Google Forms, a non-face-to-face online survey was conducted in January 2023. Through convenience sampling, the survey targeted 500 Koreans who had watched the relay broadcast of the 2022 FIFA World Cup. After excluding the data of 10 participants who answered the questionnaire insincerely, the data of 490 participants were used for data analysis.

The study was conducted in accordance with the guidelines of the Declaration of Helsinki and was approved by the Institutional Review Board of Kyungdong University (IRB 2023-004). Participants provided informed consent before taking part in the survey. The consent form clearly explained the purpose of the research, procedures, potential risks and benefits, confidentiality measures, and participants' rights. All data were collected anonymously, and strict confidentiality was maintained throughout the study to protect participants' privacy and well-being. Table 1 presents the demographic characteristics of the participants. Although convenience sampling enabled efficient data collection, it may limit generalizability of the findings. In particular, there was a noticeable skew toward the 40–49 age group, which comprised 43.7% of the respondents. This overrepresentation could influence the overall

Table 1. Participants' demographic characteristics

Characteristic	Groups	Frequency (n)	%
Sex	Male	300	61.2
	Female	190	38.8
Age (in years)	20–29	130	26.5
	30–39	44	9.0
	40–49	214	43.7
	50+	102	20.8
	Total	490	100

Instruments

The study questionnaire comprised 41 questions: two questions about participants' demographics and 39 questions about the relay broadcast of the 2022 FIFA World Cup. A nominal scale was used to measure participants' sex (male and female) and age group (20–29, 30–39, 40–49, and 50+ years). The questions concerning the relay broadcast of the 2022 FIFA World Cup were modified based on this study's purpose by using the 19 factors in Lee (2021)'s study. These 19 factors were derived from the questions used in previous studies (Berlo, Lemert & Mertz, 1969; Hovland & Weiss, 1951; Lee, 2021). The content validity of this modified scale was verified using the Delphi technique. In this technique, a closed-type (two-point scale) survey was conducted with five experts: one full professor specializing in sports sociology, two doctoral candidates in sports media and communication, and two PhD researchers in sports broadcasting and journalism. All panelists had published peer-reviewed research related to sports media within the past five years.

As a result, the final sub-factors for evaluating the broadcast of the 2022 FIFA World Cup were identified as follows: (1) impression of the relayer, (2) voice of the relayer, (3) communication ability of the relayer, (4) knowledge of the relayer, (5) ability of the relayer to progress, (6) ability of the relayer to explain situations, (7) help provided by the relayer in watching the game, (8) video composition, (9) relay screen data, (10) relay screen composition, (11) video presence, (12) voice realism, (13) delivery of player records, (14) delivery of team records, (15) delivery of background knowledge, (16) delivery of information about match schedule, (17) ability to participate in the match event, (18) ability to participate in the viewer corner, and (19) ability to share opinions. In the questionnaire, there were two questions for each of these sub-factors to measure

their importance and performance, and one question measured overall satisfaction. The 39 questions were rated on a five-point Likert scale, with 5 denoting "completely agree," 4 denoting "agree," 3 denoting "neutral," 2 denoting "disagree," and 1 denoting "completely disagree.".

After data collection, the scale's intra-factor consistency was verified through Cronbach's α. Cronbach's α of the importance and performance items was 0.925 and 0.954, respectively, both being higher than 0.700, which is the criterion for reliability verification. Therefore, there was high internal consistency (Weaver & Maxwell, 2014). Additionally, there was no item in which the "alpha if item deleted" value was higher than the Cronbach's α. Hence, all items were retained in the final questionnaire.

Procedure and Data Analysis

The data collected were analyzed using SPSS (version 18.0; IBM Corp., Armonk, NY, USA). First, a frequency analysis was conducted to confirm participants' demographic characteristics. Second, we verified the reliability of the research tool using Cronbach's α. Third, a paired samples t-test was conducted to analyze differences in the importance and performance of the sub-factors of the broadcast of the 2022 FIFA World Cup relay. Finally, we verified the importance and performance of each sub-factor of the broadcast using Vavra (1997)'s revised IPA.

RESULTS

Difference in importance-performance levels of the sub-factors of the broadcast of the 2022 FIFA World Cup

As stated earlier, a paired t-test was conducted to examine whether statistical differences exist between the importance and performance of the sub-factors of the relay broadcast. Table 2 presents the results. The average importance was higher than

the average performance of 17 of the 19 sub-factors of the relay broadcast of the 2022 FIFA World Cup, showing a statistically significant difference (p<0.001). The importance and performance of the sub-factor knowledge of the relayer had the largest difference (t=13.150). No difference was found between the importance and performance of the sub-factors impression of the relayer (t=-0.648) and the ability to participate in the viewer corner (t=1.371).

Table 2. Difference between the importance and performance of the sub-factors of the relay broadcast of the 2022 FIFA World Cup

Factor number	Sub-factor	Importance		Performance		Mean difference	Rank difference	t	p
		Mean	SD	Mean	SD				
1	Impression of the relayer	4.36	0.81	4.38	0.66	-0.02	18	-0.648	0.517
2	Voice of the relayer	4.64	0.57	4.36	0.71	0.28	7	8.289	< 0.001***
3	Communication ability of the relayer	4.65	0.61	4.31	0.70	0.34	2	11.119	< 0.001***
4	Knowledge of the relayer	4.79	0.47	4.39	0.71	0.40	1	13.150	< 0.001***
5	Ability of the relayer to progress	4.64	0.59	4.33	0.67	0.31	4	10.101	< 0.001***
6	Ability of the relayer to explain situations	4.70	0.60	4.36	0.71	0.34	2	10.665	< 0.001***
7	Help provided by the relayer in watching the game	4.57	0.68	4.42	0.71	0.15	14	5.172	< 0.001***
8	Video composition	4.62	0.60	4.33	0.71	0.29	6	9.889	< 0.001***
9	Relay screen data	4.56	0.63	4.48	0.66	0.08	15	3.321	< 0.001***
10	Relay screen composition	4.56	0.59	4.30	0.72	0.26	8	9.445	< 0.001***
11	Video presence	4.58	0.63	4.33	0.68	0.25	9	8.541	< 0.001***
12	Voice realism	4.57	0.62	4.26	0.78	0.31	4	9.738	< 0.001***
13	Delivery of player records	4.51	0.64	4.31	0.69	0.20	11	6.814	< 0.001***
14	Delivery of team records	4.48	0.67	4.27	0.74	0.21	10	7.661	< 0.001***
15	Delivery of background knowledge	4.47	0.69	4.21	0.75	0.26	8	8.812	< 0.001***
16	Delivery of information about match schedule	4.51	0.62	4.32	0.69	0.19	12	7.617	< 0.001***
17	Ability to participate in the match event	3.88	1.00	3.80	0.98	0.08	15	2.691	0.007**
18	Ability to participate in the viewer corner	3.67	1.16	3.63	1.05	0.04	17	1.371	0.171
19	Ability to share opinions	3.98	1.01	3.80	0.96	0.18	13	5.252	< 0.001***

IPA Using Vavra (1997)'S Revised Method

Figure 1 shows the IPA grid obtained from conducting Vavra (1997)'s revised IPA. Explicit importance measured by respondents' evaluation of the sub-factors of the relay broadcast of the 2022 FIFA World Cup is shown on the X-axis. Implicit importance derived from the regression coefficient for overall performance is shown on the Y-axis.
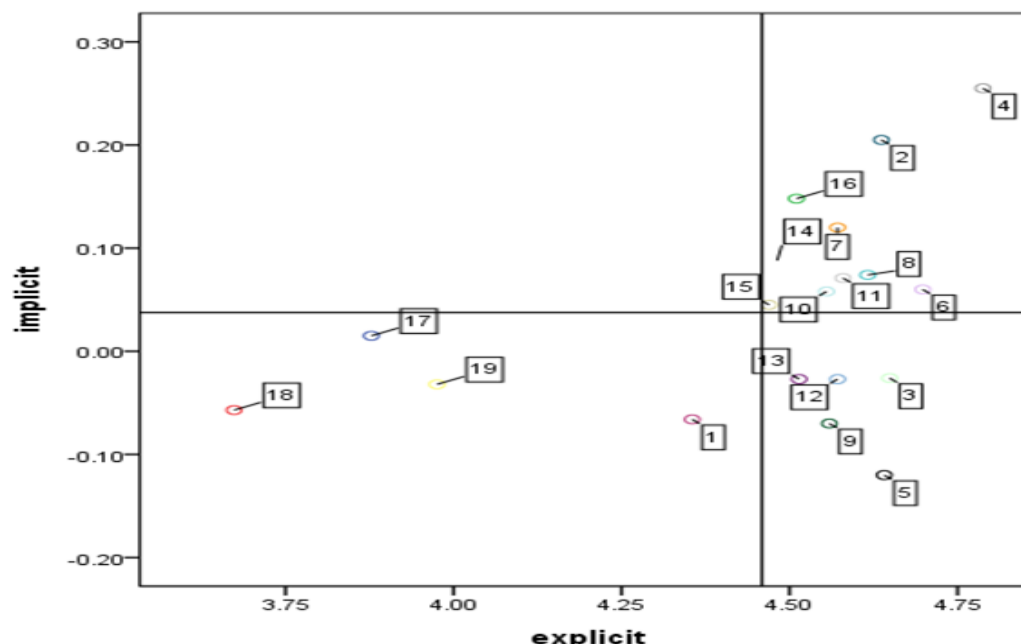

Figure 1. Revised IPA grid showing explicit vs. implicit importance derived from Vavra's (1997) revised IPA

Table 3. Summary of findings

Quadrant	Vavra (1997)'s revised IPA	Interpretation
I	Important performance factors (2) Voice of the relayer (4) Knowledge of the relayer (6) Ability of the relayer to explain situations (7) Help provided by the relayer in watching the game (8) Video composition (10) Relay screen composition (11) Video presence (14) Delivery of team records (15) Delivery of background knowledge (16) Delivery of information about match schedule	As the level of relay broadcasting improves, the level of satisfaction perceived by viewers also improves. Therefore, these factors must be constantly managed.
II	Excitement factors None	These factors do not cause dissatisfaction even if not satisfied but affect satisfaction when intrinsically satisfied.
III	Unimportant performance factors (1) Impression of the relayer (17) Ability to participate in the match event (18) Ability to participate in the viewer corner (19) Ability to share opinions	These factors positively affect overall satisfaction if they are met. However, they negatively affect overall satisfaction if they are not met.
IV	Basic factors (3) Communication ability of the relayer (5) Ability of the relayer to progress (9) Relay screen data (12) Voice realism (13) Delivery of player records	These factors do not elicit a lot of satisfaction if they are met. However, they elicit dissatisfaction if they are not met because they are expected to be met.

The IPA grid obtained from conducting Vavra (1997)'s revised IPA comprised a three-factor model. The average values of implicit and explicit importance (4.459 and 0.0375, respectively) were used as intersection points to divide the matrix into four quadrants. Quadrant I shows important performance factors, which elicit high implicit and explicit importance. Quadrant II shows excitement factors, which elicit high implicit importance and low explicit importance. Quadrant III shows unimportant performance factors, which elicit low implicit and explicit importance. Finally, Quadrant IV shows basic factors, which elicit low implicit and high explicit importance (Ko , 2013).

Ten sub-factors of the relay broadcast were located in Quadrant I, eliciting high implicit and explicit importance: (2) voice of the relayer, (4) knowledge of the relayer, (6) ability of the relayer to explain situations, (7) help provided by the relayer in watching the game, (8) video composition, (10) relay screen composition, (11) video presence, (14) delivery of team records, (15) delivery of background knowledge, and (16) delivery of information about match schedule. Four sub-factors were located in Quadrant III, eliciting low levels of implicit and explicit importance: (1) impression of the relayer, (17) ability to participate in the match event, (18) ability to participate in the viewer corner, and (19) ability to share opinions. Five sub-factors were located in Quadrant IV, eliciting low implicit importance and high explicit importance: (3) communication ability of the relayer, (5) ability of the relayer to progress, (9) relay screen data, (12) voice realism, and (13) delivery of player records. No sub-factors were located in Quadrant II, which shows factors that elicit high implicit importance and low explicit importance. Table 3 presents the summary of the findings.

DISCUSSION

Relay broadcasting is an important component of sports events as it allows fans to watch the event when they cannot watch it from the stadium. The development of broadcasting technology has made sports broadcasts more informative and interesting to watch. Sports relay broadcasting technology is expected to develop even more in the future, which makes it important to study the relay broadcasting of mega sports events. Accordingly, this study examined viewers'

perception of the relay broadcast of the 2022 FIFA World Cup with the aim of creating a development plan for sports relay broadcasts. The following results were obtained.

First, the importance of 17 of the 19 sub-factors of the relay broadcast of the 2022 FIFA World Cup was higher than their performance. Based on this result, it can be inferred that the relay broadcast did not meet viewers' standards in those 17 aspects. Regarding the remaining two factors (impression of the relayer and ability to participate in the viewer corner), no statistical difference was found in their importance and performance. In sports relay broadcasting, viewers generally watch real-time game scenes and listen to the relay through the voice of the relayer. Thus, viewers consider the relayer's voice (mean=4.64) more immersive than their appearance (mean=4.36).

This result may reflect deeper differences in sport-specific viewing cultures. In baseball, which involves frequent pauses between innings and visible commentator appearances during breaks, the relayer's on-screen impression can significantly influence viewer experience. Conversely, football offers continuous action with fewer visual interruptions and minimal relayer screen time, making vocal attributes more salient than visual presence. This suggests that viewer expectations for the relayer's appearance may be inherently lower in football, contributing to its classification as an unimportant performance factor in this context. Therefore, they perceive the relayer's voice as a crucial sub-factor and the impression of the relayer as a relatively unimportant sub-factor. Lee (2021) used the same scale in their study and found that the importance of all 19 factors exceeds their performance. This result is partially different from the one derived in this study. This can be due to the differences in the characteristics of baseball and football. These differences may stem from the intrinsic characteristics of each sport. Baseball, with its segmented play and slower pace, often provides viewers with more opportunities to absorb supplementary content such as statistical graphics, expert commentary, and relayer presence. Football, on the other hand, is characterized by continuous play and fewer breaks, making real-time game flow and auditory commentary more critical. Accordingly, viewer expectations and attention may shift toward auditory and contextual information delivery rather than visual or appearance-based aspects. This aligns with findings

from Solberg and Helland (2011), who highlighted the influence of sport-specific temporal structures on broadcast expectations.

Baseball tends to demand intense focus and delivers information in a more complete form, whereas football encourages audience engagement and leaves more room for interpretation (Conway & Ouellette, 2020). More specifically, baseball is often divided into offense and defense, therefore the relayer often appears on the screen. In contrast, football is played almost continuously for 90 minutes, and the relayer's appearance is generally limited to before the start of the game, during the half time, and after the end of the game. Therefore, viewers do not pay much attention to the relayer's appearance. Moreover, there are many breaks during a baseball match, for instance, when teams switch between offense and defense. This provides a lot of opportunities for viewers to participate. In contrast, there are not many breaks during a football match, and this can be inferred as the cause of difference in the results of the two studies. Based on these results, it is necessary to come up with various measures (such as integrating social network services, providing the function of real-time communication, having a Q&A bulletin board for questions about the game, and having a win-loss prediction program) to increase the satisfaction of viewers concerning "the impression of the relayer" and "ability to participate in the viewer corner" in the relay broadcast of football matches, especially FIFA World Cup matches.

Second, Vavra (1997)'s revised IPA revealed that 10 sub-factors (Sub-factors 2, 4, 6, 7, 8, 10, 11, 14, 15, and 16) are located in Quadrant I and are "important performance factors," which elicit high implicit and explicit importance. More than half of the 19 factors fall in this quadrant. These factors require continuous management because as the level of relay broadcasting increases, viewers' satisfaction also increases (Kano et al., 1984). We also found that mainly the sub-factors related to the relayer fell in this quadrant. Thus, it can be inferred that the relayer plays a crucial role in making viewers experience the same emotions as they would if they were watching the match in the stadium and feel satisfied (Kunert & Kuni, 2023). Many previous studies (Kong, Jung & Lee, 2010 ; 2010; Solberg & Helland, 2011) have also claimed that broadcasters must strive to regularly improve their professionalism to increase viewers' satisfaction. Solberg & Helland (2011) found that

game-related knowledge and the ability to explain the game situation as a relay team are the most important factors in the objectivity and professionalism of a relay team. Horky, Clavio & Grimmer (2020) emphasized the importance of pre-game coverage in television broadcasting. They also argued that panel discussions and "expert" commentaries are very important, supporting the results of this study.

Third, no sub-factors were located in Quadrant II. That is, no sub-factors were "excitement factors," (Kano et al., 1984), which elicit high implicit importance and low explicit importance. Fourth, four sub-factors (Sub-factors 1, 17, 18, and 19) were located in Quadrant III and were "unimportant performance factors," which elicit low implicit and explicit importance. As stated earlier, unimportant performance factors are factors that positively affect overall satisfaction if they are met but negatively affect overall satisfaction if they are not met (Kano et al., 1984). Therefore, broadcasters should consider what viewers need in related to these factors and take measures to increase the overall performance of relay broadcasting (Lee, 2021). The two sub-factors whose importance and performance were not statistically different, "impression of the relayer" and "ability to participate in the viewer corner," fell in this area. Since mainly the sub-factors related to viewers were located in Quadrant III, it is necessary to devise specific measures to encourage viewers to participate more actively in the relay broadcast of the FIFA World Cup. These results also reflect structural differences in how football and baseball are experienced by Korean audiences. Football, with its continuous 90-minute play, offers fewer natural pauses than baseball, reducing opportunities for relayers to appear onscreen or engage directly with viewers. In contrast, baseball's segmented structure allows more frequent commentary switches and visual exposure of relayers, which increases the relevance of their on-screen impression. Additionally, football audiences in Korea tend to focus more on immersive gameplay rather than relayer characteristics, which may explain the low implicit and explicit importance of the "impression of the relayer" factor. Moreover, compared to Lee (2021), which focused on domestic baseball broadcasts, the present study highlights a significant shift in viewer expectations during global events like the FIFA World Cup. This suggests that sports type and event scale mediate the

perceived role of relayers. Finally, the current technological context further modifies viewer perceptions. Innovations such as real-time chat overlays, metaverse-based match viewing, and AI-generated highlight reels are shaping new interaction norms (Plumley & Wilson, 2022; Kunert & Kuni, 2023). As such, relayers' traditional roles are being supplemented—or even replaced—by platform-based interaction features. Future broadcasts should explore hybrid approaches that combine expert commentary with immersive, user-directed technologies.

For example, a corner can be prepared where viewers ask questions, and a commentator answers them in real-time during relay broadcasts. This could satisfy viewer curiosity and deepen their understanding of sports broadcasting. Additionally, virtual and augmented reality can be used to provide viewers with a more realistic experience, make them feel as if they are watching the game in the stadium, and provide various opportunities to interact. Recent advancements show that immersive technologies like VR and AR are being integrated into live sports broadcasting, allowing fans to select camera angles, access biometric data, or interact with 3D game replays in real time. For example, FIFA and multiple broadcasters have begun piloting metaverse-based viewing platforms, offering customizable viewing environments and social co-watching functions. These innovations reshape viewer expectations from passive reception to active interaction, making it likely that factors related to immersion and interactivity currently low in importance may move into the high-importance quadrant in future IPA analyses (Alvarez et al., 2024; Plumley & Wilson, 2022). Since technologies related to this are only recently being developed broadcasting stations will need to adopt a strategy that actively reflects these technologies and provide them to viewers.

Fifth, five sub-factors (Sub-factors 3, 5, 9, 12, and 13) were located in Quadrant IV and were "basic factors," which elicit low implicit and high explicit importance. As stated earlier, basic factors do not induce a lot of satisfaction if they are met, but they elicit dissatisfaction if they are not met (Kano et al., 1984). Therefore, broadcasters should pay special attention to satisfy the factors that fall in this quadrant. These factors are necessary but not sufficient to increase viewers' satisfaction, are expected to be met, and are generally taken for granted (Lee, 2021). Solberg & Hammervold

(2019) asserted that delivering information, such as team profiles, during live football games improves viewership ratings, and these factors are the most basic elements of sports broadcasting. Therefore, broadcasters should closely manage these factors to avoid viewer dissatisfaction. A retired football player commented a relay broadcast in Korea. Owing to their unclear voice and usage of inappropriate broadcasting terminology, information was not delivered properly to the viewers. Resultingly, the game relay was not smooth, and viewers' dissatisfaction increased rapidly (Alvarez et al., 2024). To avoid repeating these mistakes, broadcasting companies must meticulously prepare for the most basic elements of relay broadcasting.

Conclusion

We derived the following conclusions from this study. First, no statistical difference exists in the importance and performance of the sub-factors "impression of the relayer" and "ability to participate in the viewer corner" of the 2022 FIFA World Cup relay broadcast. However, the importance of the remaining 17 sub-factors exceeds their performance. Second, based on Vavra (1997)'s revised IPA, 10 sub-factors are important performance factors, four sub-factors are unimportant performance factors, and five sub-factors are basic factors. No sub-factors are excitement factors.

These findings lead to several recommendations for future research. First, we obtained meaningful results by examining Korea's relay broadcast of the 2022 FIFA World Cup. However, since the FIFA World Cup is a mega sporting event attracting viewers from many countries, examining the importance and performance of the FIFA World Cup relay broadcast can yield different results depending on the country. Therefore, future research should have participants from different countries and compare their results with those of this study. Second, During the 2022 Qatar World Cup, Korea's three major terrestrial broadcasters (KBS, MBC, SBS) provided relay broadcasts to viewers. However, this study did not distinguish between the three broadcasters or take their differences into account. Future research should examine the differences in relay broadcasting among the three broadcasters during mega sporting events such as the World Cup or the Olympics. Also, In the past, when smart devices were not yet developed, viewers could only

watch relay broadcasts unidirectionally through TV or radio. However, with the recent advancements in smart devices, viewers now have the option to watch relay broadcasts not only through TV and radio but also via real-time streaming services on smartphones and PCs. Additionally, features such as comment sections enable bidirectional communication. This study did not take into account these diverse methods of watching relay broadcasts. Therefore, future research should consider comparing traditional methods of watching relay broadcasts with the new methods. Furthermore, this study focused exclusively on Korean viewers of terrestrial broadcasters (KBS, MBC, SBS). With the growing popularity of streaming platforms such as YouTube, Coupang Play, and mobile apps, viewer expectations and experiences may differ significantly. Younger demographics, in particular, often consume sports content through second screens and social media engagement, which may not be fully captured in this study. Future research should thus consider cross-cultural comparative studies and longitudinal designs to explore how broadcasting preferences evolve over time and across platforms. Such approaches would offer a more comprehensive understanding of global viewer dynamics in the post-pandemic media landscape.

Future research should explore comparative studies across different cultural contexts and broadcasting systems to examine how perceptions vary by country or region. Longitudinal studies tracking shifts in viewer expectations—especially in the post-pandemic era—would also be valuable in understanding how technological advancements and media convergence are transforming the relay broadcasting landscape.

In addition to these future research directions, this study offers practical and theoretical contributions. Practically, the findings can serve as a foundational guideline for broadcasters aiming to improve viewer satisfaction during mega sporting events. By identifying priority areas through Vavra's revised IPA, broadcasters can optimize commentary quality, visual elements, and viewer interactivity in an increasingly digital and multiscreen environment. Theoretically, this study bridges the gap between media studies and sports sociology by analyzing how cultural and technological factors shape audience perceptions. As such, the research provides a conceptual framework for future interdisciplinary investigations into media convergence, cultural identity, and sports communication across global contexts.

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Author Contributions

The study was conducted according to the guidelines of the Declaration of Helsinki, and approved by the Institutional Review Board of Kyungdong University (IRB 2023-004).

Informed Consent Statement

Informed consent was obtained from all participants involved in the study.

Conflict of Interest

No potential conflict of interest was reported by the authors.

Author Contributions

Study design, SL and BK; Data collection, SL; Statistical analysis, SL; Data interpretation, SL, Literature search, SL and BK. Writing of the Manuscript, SL, SC and BK. All authors have read and approved the published version of the manuscript.

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