PUBLIC TRUST AND TOKYO 2020 OLYMPIC GAMES: ASSESSING WHO, IOC, AND TOCOG'S INFLUENCE

Abstract - The Tokyo 2020 Olympic Games, held amid the COVID-19 pandemic, faced unprecedented challenges in gaining public endorsement. This study examines how trust in three key organizations—the World Health Organization (WHO), the International Olympic Committee (IOC), and the Tokyo Organizing Committee of the Olympic and Paralympic Games (TOCOG)—influenced public support for hosting the Games. Using a survey of 1,004 Japanese residents conducted between September and October 2021, Structural Equation Modeling (SEM) was employed to analyze the data. The findings reveal that trust in WHO played a crucial role, indirectly affecting the endorsement of the Games by bolstering trust in the IOC and TOCOG. This hierarchical relationship highlights WHO's influence on the credibility of other organizations involved in the Games. The proposed model, which best fits the data, suggests that the interconnected trust between these organizations is essential for securing public support during a global crisis. The study underscores the importance of effective communication and collaboration among international organizations in managing public perception and trust, particularly when hosting large-scale events during health crises. These insights contribute to understanding the dynamics of organizational trust in a pandemic context, offering valuable lessons for future events.

Keywords: public perception; health crisis; event management; organizational trust; Olympic movement.

CONFIANÇA PÚBLICA E OS JOGOS OLÍMPICOS DE TÓQUIO 2020: AVALIANDO A INFLUÊNCIA DA OMS, COI E TOCOG

Resumo - Os Jogos Olímpicos de Tóquio 2020, realizados em meio à pandemia de COVID-19, enfrentaram desafios sem precedentes para obter o apoio público. Este estudo examina como a confiança em três organizações-chave — a Organização Mundial da Saúde (OMS), o Comitê Olímpico Internacional (COI) e o Comitê Organizador dos Jogos Olímpicos e Paralímpicos de Tóquio (TOCOG) — influenciou o apoio público à realização dos Jogos. Utilizando uma pesquisa com 1.004 residentes japoneses realizada entre setembro e outubro de 2021, foi empregada a Modelagem de Equações Estruturais (SEM) para analisar os dados. Os resultados revelam que a confiança na OMS desempenhou um papel crucial, afetando indiretamente a aprovação dos Jogos ao fortalecer a confiança no COI e no TOCOG. Essa relação hierárquica destaca a influência da OMS na credibilidade das outras organizações envolvidas nos Jogos. O modelo proposto, que melhor se ajusta aos dados, sugere que a confiança interconectada entre essas organizações é essencial para garantir o apoio público durante uma crise global. O estudo ressalta a importância da comunicação eficaz e da colaboração entre organizações internacionais na gestão da percepção pública e da confiança, particularmente ao realizar eventos de grande escala durante crises de saúde. Essas percepções contribuem para a compreensão da dinâmica da confiança organizacional em um contexto de pandemia, oferecendo lições valiosas para eventos futuros.

Palavras-chave: percepção pública; crise da saúde; gestão de eventos; confiança organizacional; movimento Olímpico.

CONFIANZA PÚBLICA Y LOS JUEGOS OLÍMPICOS DE TOKIO 2020: EVALUANDO LA INFLUENCIA DE LA OMS, COI Y TOCOG

Resumen - Los Juegos Olímpicos de Tokio 2020, celebrados en medio de la pandemia de COVID-19, enfrentaron desafíos sin precedentes para obtener el respaldo público. Este estudio examina cómo la confianza en tres organizaciones clave — la Organización Mundial de la Salud (OMS), el Comité Olímpico Internacional (COI) y el Comité Organizador de los Juegos Olímpicos y Paralímpicos de Tokio (TOCOG) — influyó en el apoyo público para la realización de los Juegos. Utilizando una encuesta realizada a 1,004 residentes japoneses entre septiembre y octubre de 2021, se empleó la Modelación de Ecuaciones Estructurales (SEM) para analizar los datos. Los resultados revelan que la confianza en la OMS desempeñó un papel crucial, afectando indirectamente la aprobación de los Juegos al fortalecer la confianza en el COI y el TOCOG. Esta relación jerárquica destaca la influencia de la OMS en la credibilidad de las otras organizaciones involucradas en los Juegos. El modelo propuesto, que mejor se ajusta a los datos, sugiere que la confianza interconectada entre estas organizaciones es esencial para asegurar el apoyo público durante una crisis global. El estudio subraya la importancia de la comunicación eficaz y la colaboración entre organizaciones internacionales en la gestión de la percepción pública y la confianza, particularmente al organizar eventos de gran escala durante crisis de salud. Estas perspectivas contribuyen a la comprensión de la dinámica de la confianza organizacional en un contexto de pandemia, ofreciendo lecciones valiosas para futuros eventos.

Palabras-clave: percepción pública; crisis sanitaria; gestión de eventos; confianza organizacional; movimiento Olímpico.

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Introduction

The global onset of COVID-19 in late 2019 swiftly brought about substantial changes worldwide. A March 2020 survey conducted by Sato and Oshimi[1] targeting Japanese citizens indicated a split opinion regarding the Tokyo Olympics 35.2% opposed the event, while a nearly identical 35.3% supported its hosting. In response to the prevailing circumstances, the International Olympic Committee (IOC) and Tokyo 2020 Olympic and Paralympic Games Organizing Committee (TOCOG) jointly announced on March 24, 2020, the postponement of the Tokyo Olympics by one year due to the global COVID-19 pandemic. The rescheduled event was slated to occur during the corresponding period in 2021. During the announcement, IOC President Thomas Bach underscored the paramount importance of prioritizing the health and safety of athletes and stakeholders. He emphasized the need for unified collaboration and concerted efforts among the IOC and its affiliates to make informed decisions and demonstrate responsible actions amidst the COVID-19 pandemic[2]. This decision symbolized unity and global peace, fundamental tenets of the Olympics, aiming to instill hope worldwide.

The repercussions of the COVID-19 pandemic led to the cancellation or postponement of numerous significant mass gatherings worldwide, including sporting competitions, religious ceremonies, cultural festivities, and other major events. Events such as the Formula 1 Grand Prix in China, the Euro 2020 football championship, the Six Nations rugby championship held in Italy and Ireland, the Mobile World Congress in Barcelona, and Olympic boxing qualifying events were among those affected[3]. The Olympics, being a costly large-scale event, accentuates the importance of strategic planning and effective communication strategies to garner public support, particularly during standard conditions[4]. While existing studies explore factors influencing public attitudes toward the Olympics[5-8], there remains limited understanding of organizing such events amid a global crisis like a pandemic.

A survey conducted on May 21, 2021, during the ongoing disruptions caused by the pandemic, revealed a substantial opposition within the Japanese population to hosting the Tokyo Olympics. This opposition stemmed from their inability to fully recuperate from the pandemic's aftermath[9]. As of July 1st, 2021, Japan continued to grapple with a precarious public health situation[10]. Nonetheless, despite the anticipated challenges, the postponed Tokyo Olympic and Paralympic Games were successfully held and concluded

on Sunday, September 5th, 2021, without any reported major incidents or casualties[11]. Furthermore, a post-Games survey indicated a majority of Japanese respondents had a positive attitude towards holding the Olympic Games amid the COVID-19 pandemic[12].

Consequently, this study aimed to ascertain the correlation between the credibility of the IOC, WHO, and TOCOG and the endorsement of hosting the Tokyo 2020 Olympic Games. By investigating the factors influencing public attitudes toward hosting large-scale events amidst a global calamity posing health risks, this study offers an original contribution to the field.

Literature Review

Jasanoff and Hilgartner[13] conducted a cross-national analysis of the COVID-19 policy responses in 16 countries, examining the varied national strategies and public responses. Their study underscores the influence of cultural and contextual factors on policy effectiveness and public perception during global crises, providing a comprehensive overview of how different nations have responded to the pandemic[13]. A significant review and meta-analysis conducted by Luo and Guo[14] in Psychological Medicine focused on the psychological impact of COVID-19 lockdowns. Synthesizing data from longitudinal studies and natural experiments, the study reveals heightened levels of anxiety, depression, and general mental health symptoms among the general population during the pandemic. This research is pivotal in understanding the profound psychological impact of such unprecedented times, which is critical to comprehend public attitudes towards large-scale events under pandemic conditions[14]. The summaries encapsulate the global responses and psychological effects of the pandemic, crucial for understanding public perceptions, particularly in the context of major events such as the Olympics. They highlight the significance of cultural and contextual influences on policy effectiveness and the mental health repercussions on the general population, offering essential insights for comprehending public attitudes towards large-scale gatherings in pandemic circumstances.

Ando and Samahito[15] revealed in their study on Tokyo Olympic volunteers that female volunteers with a strong perception of friendship that is one dimension of the Olympic value, showed higher support for hosting the Games. However, in hosting the Olympic Games, securing the endorsement of not only volunteers but also the general

public is essential. Public endorsement in the context of Olympic hosting is a crucial factor, and the IOC also considers it significant when selecting host countries[5-8]. Thus, to clarify in Japanese citizens' support for hosting the Games before and after the event holds significant implications for garnering public support in future Olympic events. To elucidate this point, a study referencing the influenza pandemic of 2009, predating the COVID-19 pandemic, was consulted. Prati and Pietrantoni[16] underscored a relationship between adherence to recommended behaviors and trust in media, confidence in the Ministry of Health, levels of concern, and the perceived severity of the illness. These behaviors were associated with beliefs regarding the heightened risk of contracting pandemic influenza H1N1 2009, governmental efforts in managing it, media sensationalism, and individuals' perceived capacity to manage their risk. Furthermore, a survey conducted by Quinn and Parmer[17] in the United States identified public health officials as the most credible spokespersons.

The researchers have proposed a hypothesis aimed at explaining the shift in public sentiment before and after the Games, which centers on the trust of the Japanese population in the World Health Organization (WHO). This trust potentially influenced their support for hosting the Olympic Games during the pandemic. Reports emerged before the Games regarding the WHO's participation in an advisory task force established by the IOC and TOCOG, providing guidance on COVID-19 measures[18]. Hoang and Al-Tawfiq[19] emphasized the critical need for current and comprehensive epidemiological data to make informed decisions regarding the Tokyo 2020 Olympic and Paralympic Games in an academic paper context. TOCOG updated its playbook before the Games, establishing behavioral rules for stakeholders. It explicitly stated that participants in the Games should undergo testing based on their frequency of contact with athletes to ensure no interaction between athletes and the Japanese citizens[20].

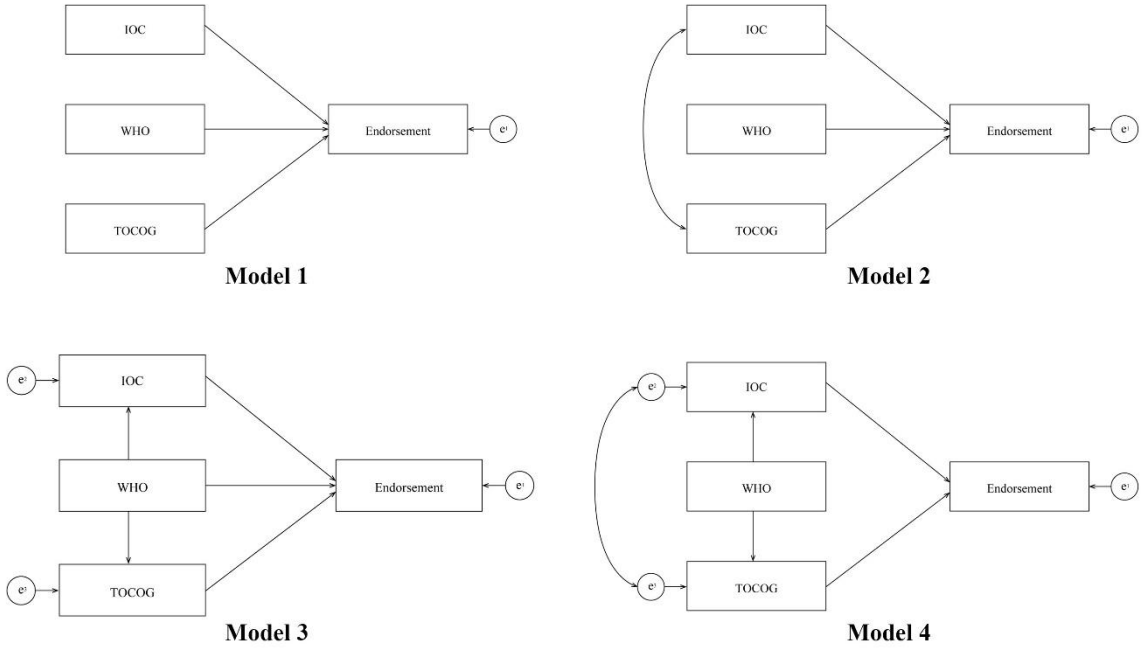
Dr. Brian McCloskey, Chair of the Tokyo 2020 Independent Expert Panel, emphasized that the historic approach taken by Tokyo 2020 Olympic Games demonstrated the correctness of WHO advice, indicating the potential to contain a pandemic by adhering to fundamental public health measures, supplemented by the implementation of testing programs[21].

Method

To accomplish the objective of this study, the researchers established four hypothetical models (Model 1 to Model 4) based on previous studies and employed a quantitative approach using a questionnaire survey to validate these models (Figure 1).

The four hypothetical models depicted present different structural relationships between the IOC, WHO, TOCOG, and public endorsement of hosting the Olympic Games. Model 1 hypothesizes direct paths from each organization to public endorsement without interactions between the organizations. Model 2 introduces bidirectional relationships between the organizations, suggesting mutual influence. Model 3 posits that public endorsement directly influences the organizations. Finally, Model 4 suggests a circular relationship among trust in the IOC and TOCOG and hypothesizes that trust in the WHO leads to trust in the IOC and TOCOG, which subsequently results in support for hosting the event.

Figure 1 - Four hypothetical models.



Source: authors.

Instruments

The questionnaire utilized for the quantitative survey comprised three sections. The initial section encompassed inquiries regarding the participants' demographics. In the second section, participants were asked to rate the credibility of the IOC, WHO, and TOCOG using a 7-item scale for each organization. The items, using Becker-Olsen, Cudmore and Hill's[22]. scale, comprised statements in the assessment items such as "I can trust the IOC/WHO/TOCOG," "The IOC/WHO/TOCOG takes care of its fans/people," "The IOC/WHO/TOCOG has a strong value system," and "The IOC/WHO/TOCOG is a sports/health/event institution I believe in." The third section centered on evaluating participants' support for the Tokyo 2020 Olympic Games. The questionnaire items, originally derived from Koenigstorfer and Preuss[5], were adjusted to specifically emphasize the transition from the broader concept of the Olympic Games to the Tokyo 2020 Olympic Games within the given context. These comprise the following three items: "I have favorable feelings towards Tokyo 2020 Olympic Games," "I am positive about the Tokyo 2020 Olympic Games," and "think the Tokyo 2020 Olympic Games is good." All items were assessed on a 7-point rating scale (anchored at 1 = 'do not agree at all' and 7 = 'fully agree').

Prior to distribution, this research instrument underwent evaluation by the ethics committee of Kasetsart University to ensure content validity and mitigate any ethical concerns. Subsequently, the research instrument was confirmed to have no ethical concerns (COA No. COA64/048).

Population and Sample

The population for this study encompassed Japanese females and males aged between 18 and 80 years residing in Japan. Data collection occurred post the Olympic and Paralympic Games Tokyo 2020, spanning from September 10 to October 30, 2021. An online questionnaire was utilized for data collection, with participants explicitly informed that their participation was voluntary, and their responses would remain confidential. The questionnaire did not solicit any personal identifying information. A total of 1,169 completed questionnaires were initially received. Following the exclusion of 165 participants who showed no variability in their ratings, the final sample size consisted of 1,004 individuals, with 51.1% women and 48.9% men. This gender

distribution closely mirrors the percentages of women (51.3%) and men (48.7%) reported in the demographic statistics of Japanese citizens by the Ministry of Internal Affairs and Communications, Japan (23), comprising 64,756,000 women and 61,411,000 men. The attributes of the sample are shown in Table 1, the age of respondents was 35-44 years old (24.5%), followed by 25-34 years old (19.4%). The participants' level of interest in sports was slightly lower than moderate (M = 3.82, SD = 1.83, rated on a 7-point scale, where 1 = 'not interest at all' and 7 = 'strong interest').

Table 1 - Sample description.

	Classification	Frequency (n = 1,004)	Percentage
Gender	Women	513	51.1
	Men	491	48.9
	Total	**1,004**	**100.0**
Occupation	Student	54	5.4
	Full-time worker	350	35.0
	Part-time worker	159	15.9
	Self-employment	58	5.8
	Employer	14	1.4
	None	292	29.2
	Others	77	7.7
	Total	**1,004**	**100.0**
Age	18-24	102	10.2
	25-34	195	19.4
	35-44	246	24.5
	45-54	185	18.4
	55-64	155	15.4
	65-74	101	10.1
	75+	20	2.0
	Total	**1,004**	**100.0**

	Classification	Frequency (n = 1,004)	Percentage
Interest in sport	7 (strong interest)	71	7.1
(M = 3.82, SD = 1.83)	6 (interest)	120	12.0
	5 (rather interest)	208	20.7
	4 (neither)	215	21.4
	3 (not rather interest)	107	10.7
	2 (not interest)	119	11.9
	1 (not interest at all)	164	16.3
	Total	**1,004**	**100.0**

Source: authors.

Analysis

To examine how trust in the WHO, IOC, and TOCOG affected Japanese citizens' support for hosting Tokyo 2020, Structural Equation Modeling was conducted using AMOS 28.0.

Result

Firstly, the mean values of each questionnaire item for four dimensions (Trust in IOC, Trust in TOCOG, Trust in WHO, Endorsement of Hosting the Tokyo 2020 Olympic Games) were computed as scale scores (shown in Table 2).

Table 2 - Descriptive Statistics of each dimension

	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
Trust in IOC	1004	1.00	7.00	2.9768	0.04779	1.51423
Trust in TOCOG	1004	1.00	7.00	3.0819	0.04866	1.54169
Trust in WHO	1004	1.00	7.00	3.2478	0.04793	1.51884
Endorse to the Tokyo Games	1004	1.00	7.00	3.7845	0.05394	1.70902
Valid N (listwise)	1004					

Source: authors.

Secondly, the model fit values were verified for four hypotheses based on previous studies. These measures provide the most fundamental indication of how well the proposed model fits the data[24], the Chi-Square is the traditional measure for evaluating overall model fit and, "assesses the magnitude of discrepancy between the sample and fitted covariances matrices (p. 35)"[25]. Although the Chi-Squared test remains widely used as a measure of fit, it possesses several significant limitations in its application. Therefore, in this study, the Chi-Squared test was not adopted as a model fit index, and instead, four indices— p-value, RMSEA, GFI, and CFI —were employed. In p-value, the researchers utilized the criterion of Barrett[26] (26). When the p-value is not significant (≥ 0.05), it indicates that the model is a good fit.

The RMSEA tells us how well the model, with unknown but optimally chosen parameter estimates would fit the populations covariance matrix[27]. In recent years it has become regarded as 'one of the most informative fit indices[28].' Below 0.08 shows a good fit[29]. The Goodness-of-Fit statistic (GFI) was created by Jöreskog and Sorbom as an alternative to the Chi-Square test and calculates the proportion of variance that is accounted for by the estimated population covariance[30]. Traditionally an omnibus cut-off points of 0.90 has been recommended for the GFI however, simulation studies have shown that when factor loadings and sample sizes are low a higher cut-off of 0.95 is more appropriate[31]. CFI index is included in all SEM programs and is one of the most popularly reported fit indices due to being one of the measures least effected by sample size[32]. A cut-off criterion of CFI ≥ 0.90 was initially advanced however, recent studies have shown that a value greater than 0.90 is needed to ensure that mis specified models are not accepted[25]. From this, a value of CFI ≥ 0.95 is presently recognized as indicative of good fit[25].

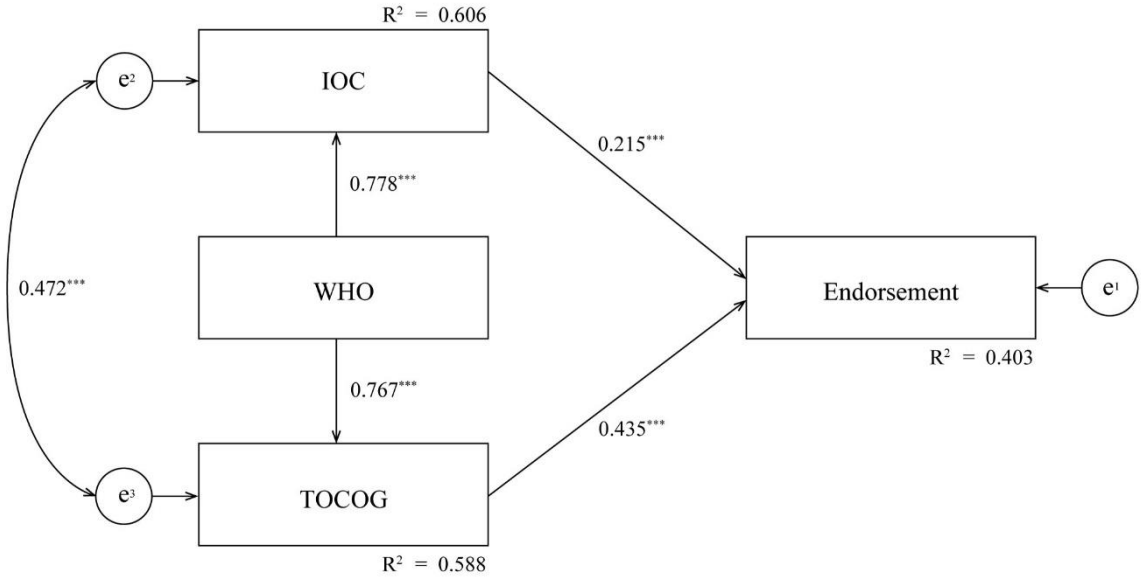
Table 3 - Model fit index comparison.

Model	*p*	RMSEA	GFI	CFI
Model 1	0.000	0.934	0.500	0.164
Model 2	0.000	0.705	0.760	0.683
Model 3	0.000	0.894	0.784	0.744
Model 4	0.873	0.000	1.000	1.000

Source: authors.

As shown in Table 3, the model fit statistics for Model 4 indicate an exceptionally good fit among the four hypothetical models. The p-value is 0.873 (≥ 0.05), the RMSEA is 0.000 (< 0.08), the GFI is 1.000 (≥ 0.95), the CFI is 1.000 (≥ 0.95), based on these above indicators, the fitness of the proposed Model 4 is recognized to be very good.

Figure 2 - Japanese Citizens' Support for Hosting Tokyo 2020



Source: authors.

Figure 2 shows a model which was assessed from among four models. The path analysis diagram illustrates a complex model of interactions between three organizations—IOC, WHO, and TOCOG—and their collective influence on the 'Endorsement' construct. External variables, denoted as e^2, e^3, and e^1, are posited to affect the IOC, TOCOG, and 'Endorsement', respectively.

The model shows a significant direct effect of the IOC on 'Endorsement' (β = 0.215, $p < 0.001$), indicating that actions or decisions made by the IOC have a substantial and positive impact on the 'Endorsement'. WHO is shown to have a significant influence on the IOC (β = 0.778, $p < 0.001$), suggesting a strong positive relationship between WHO's activities and the policies or positions adopted by the IOC. Similarly, TOCOG's actions are significantly influenced by WHO (β = 0.767, $p < 0.001$), which in turn has a significant direct effect on 'Endorsement' (β = 0.435, $p < 0.001$). These relationships are

indicative of a hierarchical influence process where WHO impacts both the IOC and TOCOG, which subsequently affects the 'Endorsement'.

The coefficients of determination (R^2) for the IOC, TOCOG, and 'Endorsement' are 0.606, 0.588, and 0.403, respectively, indicating that the model explains a substantial proportion of variance in these constructs. The external variables e^2 and e^3 have a notable direct effect on the IOC ($\beta = 0.472$, $p < 0.001$) and TOCOG ($\beta = 0.472$, $p < 0.001$), respectively, implying that external factors play a significant role in shaping the organizations' activities. However, the direct influence of the external variable e1 on 'Endorsement' is not provided in the diagram. The asterisks denote the level of significance, with three asterisks (***), indicating a p-value less than 0.001, reflecting a high degree of statistical significance for all reported path coefficients.

Discussions

Models 1 to 3 failed to meet the criteria for model fit, indicated by high RMSEA values and low GFI and CFI values, suggesting poor fit to the data. In contrast, Model 4 demonstrated excellent fit with a p-value of 0.873, RMSEA of 0.000, and both GFI and CFI at 1.000, implying a highly reliable model that accurately reflects the data. Model 4's unique fit among the four hypothetical models can be attributed to its nuanced approach in capturing the relationships among IOC, WHO, TOCOG, and public endorsement. Unlike the other models, Model 4 considers the interconnectedness and reciprocal influence among these entities, acknowledging that trust in organizations like WHO can extend to entities like IOC and TOCOG, ultimately affecting public support for events. This model's ability to mirror the complex realities of organizational influence and public perception in a dynamic global event scenario likely contributes to its superior fit.

The first thing to note in the results shown in Figure 2 is that confidence in WHO is essential to host the Olympics under the COVID-19 pandemic, and that confidence in WHO has a significant impact on the confidence in the IOC and TOCOG. Second, for endorsement of hosting Olympic Games, both the confidence in IOC and the confidence in TOCOG had significant impact. A model that depicted the path from WHO to Endorsement shows not suitable model fit. This result suggests a significant interdependency among the IOC and TOCOG, with a hierarchical flow of influence culminating in the 'Endorsement'. The external variables exert a notable impact on both

the organizations and the 'Endorsement' outcome, highlighting the importance of considering external factors in the organizational influence process.

The results confirm the pivotal role of WHO's credibility in influencing public trust in the IOC and TOCOG, which is crucial for garnering support for the Olympics during a pandemic. This is corroborated by the significant coefficients and R-squared values in the WHO to IOC and WHO to TOCOG paths. Integrating this with the findings from Luo and Guo[14] , it's evident that the pandemic's psychological burden on the public could translate into their trust in health governance and, subsequently, their support for large-scale events. The global response to the pandemic, as analyzed by Jasanoff and Hilgartner[13], further indicates that public trust is multifaceted, influenced by how effectively organizations communicate and implement health measures. These insights suggest that managing public perception requires not only immediate and transparent health responses but also a deeper understanding of the public's psychological state during such crises.

The significant correlation between Japanese citizens' opinions and their trust in WHO, IOC, and TOCOG suggests a broader implication that public trust in organizations is closely tied to perceived social legitimacy and status[33].

Conclusions

The empirical findings of this study affirm that public trust in the WHO plays a pivotal role in shaping trust in the IOC and TOCOG, which is critical for securing public support for the Olympic Games during a health crisis. This relationship highlights the importance of effective health governance and clear communication in building and maintaining public trust. The strong correlation between Japanese citizens' trust in these organizations and their opinions on the Olympics underscores the centrality of institutional legitimacy in fostering public confidence during crises.

The findings suggest that, during a pandemic, public trust in health and sporting organizations is closely tied to perceptions of these institutions' societal roles and responsibilities. This dynamic influences not only attitudes towards the Olympics but also broader behavioral patterns, potentially signaling shifts in public support for large-scale events in times of uncertainty.

The successful execution of the Tokyo 2020 Olympics, acknowledged by the IOC in August 2021, demonstrates the critical role of international collaboration and national resilience in managing such events under unprecedented conditions. The effective partnership between the IOC, WHO, and other global entities has set a precedent for how strategic alliances can enhance the capacity to navigate complex challenges, ensuring both the safety of participants and the legacy of the Games. This underscores the importance of continued cooperation with specialized organizations to safeguard the future of the Olympic Movement and its global standing.

This study emphasizes the intricate connection between public trust, organizational legitimacy, and support for large-scale public events. In the context of the Olympics, understanding how trust is constructed and sustained under crisis conditions is crucial for future event management and the broader societal implications of hosting such global events.

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