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CASE STUDIES & TEACHING CASES

The Tokyo 2020 Olympic Games: impacts of COVID-19 and digital transformation

Eduardo Russo [1]
Ariane Roder Figueira [1]
Clarice Secches Kogut [1]
Renato Dourado Cotta de Mello [1]

[1] Universidade Federal do Rio de Janeiro (UFRJ) / Instituto COPPEAD de Administração, Rio de Janeiro – RJ, Brazil

INTRODUCTION

In the beginning of 2020, the world was starting to experience the first months of what would be one of the worst pandemics in its history. At that time, it was not known for sure what was ahead, but it was only known that a new disease that emerged in the province of Wuhan, China was caused by a new species of coronavirus (COVID-19) that had symptoms similar to the flu. Its high rate of transferability called the attention of national and international authorities. At that time, the lack of expectations about a vaccine or the existence of an effective treatment meant that the only measures capable of containing the spread of the virus were limited to quarantine and social distancing.

Hiroto Nakami, the President of the Tokyo 2020 Organizing Committee at the time, was face with a situation of great uncertainty since the international escalation of the number of infections by the new virus put at risk the Olympic Games, which were scheduled to take place in just a few months. With the deterioration of the pandemic situation in the world and the increase of boycott threats and international pressure, the Japanese government was forced to officially request to the International Olympic Committee (IOC) on March 24, 2020 to postpone the Olympic and Paralympic Games scheduled to take place in Tokyo between July and September of that year. In order to preserve the health and well-being of delegations, residents, and visitors, the IOC sanctioned the first Olympic postponement in the 124-year history of the Modern Games. At the time of the decision to postpone the event by 12 months, COVID-19 was already responsible for more than 386,000 infections and 16,000 deaths on 5 continents (World Health Organization [WHO], 2010). In economic terms, it was calculated that this decision would generate an immediate loss of USD 3.54 billion to the organizers in addition to negative impacts of around 1.4% on the Japanese GDP and a 24.4% drop in the revenues of local companies. The deterioration of the world situation in the following months still raised the real possibility that the Tokyo Games would never take place, which could generate direct and indirect losses of USD 184 billion to the Japanese economy (Schreiber, 2020).

The financial issues would not be the only complicating factor. After the IOC sanction, all the planning made by the Organizing Committee in the last 7 years would no longer be useful. One of the biggest problems would certainly lie in the contractual renegotiation with around 75,000 suppliers in charge of serving the Games in 2020 in addition to sponsors and other support entities. The permanent environment of uncertainty caused by the pandemic combined with the losses on the Committee team, initially composed of more than 2,000 employees, and the different characteristics and scope of service of these suppliers brought additional challenges to their work.

With the maintenance of the pandemic scenario into 2021 and the availability of vaccines still very limited in Japan and in the rest of the countries, thinking about a new event format became more and more necessary if they wanted to make hosting the Olympic Games that year feasible. Around the world, sports competitions were reinventing themselves into a new format of mass testing of athletes and closed gates. However, thinking of a new standard of Olympics without audience and based only on digital and broadcasting attributes was until then something unthinkable or unprecedented. Amid the approach of the new date, Nakami knew that he had little time to make the necessary adaptations capable of making the event a success even in the middle of the Pandemic.

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THE TOKYO 2020 OLYMPIC GAMES

Tokyo had been chosen to host the 32nd edition of the Summer Olympic Games back in in 2013 after beating Istanbul in the final and Madrid in the preliminary rounds. After a failed attempt in 2016, Tokyo would have the opportunity to host the second Olympics in its history. Since the beginning of the modern Olympic Games era in 1896, the Asian continent had already hosted six other Olympics, three of which summer editions (Tokyo 1964, Seoul 1988, and Beijing 2008), and another three winter editions (Sapporo 1972, Nagano 1998, and Pyeongchang 2018). This time, Tokyo's candidacy brought a proposal to recover and rise the morale of Japanese society, which was still recovering from the Fukushima nuclear disaster in 2011.

Aiming to get aligned with the Agenda 2020 and the future of the Olympic movement, Tokyo brought in its speech the intention of holding a more conscious Olympics with less environmental impact, making it more sustainable (Trendafilova, Graham, & Bemiller, 2018) in terms of expenditure (Zarnowski, 1993), thus breaking the exacerbated proportions that the Olympic Games had taken over the last few editions (Chappelet, 2013). The project proposed to take advantage of the city's existing infrastructure, modernize some facilities originally built for the 1964 Games, as well as rent private spaces and assemble temporary arenas, which require less investment and could be easily demobilized after the end of the Games (Tokyo2020, 2018). As a way to reduce carbon emissions, Tokyo also aimed to hold about 60% of the competitions in existing venues in addition to create a 100% electric public transport system. In order to generate a tangible legacy (Beissel & Kohe, 2020) for the local population, the city also intended to promote other social and environmental sustainability (Paquette, Stevens, & Mallen, 2008) measures such as creating a zero waste policy that aimed to recycle everything produced by the Games, bringing greater integration of the city with nature by installing anti-heat pavements, building green areas, and protecting biodiversity, while taking measures to make use of minorities in the Games economy, ensuring respect for human rights, in addition to involving local communities through educational measures of cooperation.

Despite an initial forecast pointing to a project cost of USD 7.3 billion, by the end of 2019 the local government had already invested around USD 12.6 billion with the Games (Tokyo2020, 2020). In addition, it was expected that, motivated by the Olympics, the private sector would invest another USD 96 billion in areas such as technology (internet and transmission) and tourism support services in general (hotels, restaurants, and services). As a result, it was expected that the sum of these investments would leave a legacy of more than USD 310 billion and 2 million jobs for the region (Cord, 2018). The main projects were urban mobility (USD 35 billion), the new Olympic arenas (USD 5.2 billion), and the athlete's village (USD 3.9 billion) (Overmyer, 2017).

In addition to the increased investment in athlete training, what was also observed in the years of Tokyo's preparations for the 2020 Games was an effort by local authorities to promote Japan as a friendlier tourist destination for other publics outside Asia. Japanese society, historically stigmatized for being a closed people, began to introduce foreign languages more into their daily lives. As the Games got closer, it was possible to observe more and more the presence of signs, billboards, and advertisements in English. As a result, the country saw its number of foreign visitors jump from 5 million in 2011, when there was the Olympic bid, to more than 30 million in 2019. In that same year, these tourists left around USD 43.4 billion in the Japanese economy (Japan National Tourism Organization [JNTO], 2020).

THE JAPANESE DIGITAL STRATEGY

Japan, historically known for its proximity to technology and the robotics revolution, raised digital transformation as one of the flags of its bid for the 2020 Olympics. With the promise of being the most technologically advanced Olympic Games in history, they brought as principles various innovations that promised to transform the relationship with spectators based on experiences that would go far beyond the live broadcasting. This would be possible mainly due to the widespread use of streaming platforms in transmissions, which currently have dominated the market by offering their audience content on demand, at any time of the day. Furthermore, given the Japanese time difference that is averse to major Western countries, such flexibility was seen by organizers and sponsors as essential for a successful digital marketing strategy.

Such initiatives, which had as their main objective to place the spectator as a protagonist of their experience, also allowed customizing content according to the interest of the public, which had been in decline during the last Olympic editions, especially among younger people. In addition to this new way of consuming personalized content, the IOC also bet on so-called demonstration sports (Grohmann, 2020) as a way to get closer to this younger audience. The inclusion of rock climbing, skateboarding, surfing, and karate in the 2020 edition is a strategy to renovate the Olympic Games, which increasingly need to remain attractive in a world where the event has to compete more and more for user attention (International Olympic Committee [IOC], 2016).

Also as part of this strategy, Tokyo 2020 ended up investing in several mobile content transmission applications, providing viewers the possibility of a multi-screen experience with simultaneous interactions between television, computer, tablet, and smart phones. The goal was that all this would still be offered through a 5G platform, which would represent the latest generation in telecommunication technology, enabling faster and more comprehensive connectivity in terms of distance and number of devices. Partly motivated by the Olympic Games, Japan had invested around USD 38 billion by 2020 in telecommunication infrastructure based on 5G in an attempt to create a city with ultra-fast connection in time for the Olympics and ahead of all other cities in the world.

But perhaps the biggest difference was still in what the Japanese people know how to do best, the virtual world of games. The plan for Tokyo 2020 was to be the stage to create gamification and virtual reality experiences for visitors through immersion in 3D videos that would bring spectators closer to the experience of athletes from the most diverse Olympic sports. A movement that began at the PyeongChang Winter Olympics in 2018 would now be consolidated in Tokyo by using advanced artificial intelligence capable of capturing the biomechanics of athletes and generating insights as close to reality as possible. With this, the organization of the Games was betting on a successful recipe that would also use e-sports to create a virtual competitive environment, contributing to the atmosphere of confraternization of peoples brought by the Olympics.

All these technological "ostentations" promised by the Japanese could be observed in the venues and city spaces during or after the broadcasts of the events, certainly creating a very high expectation in the public. The feeling is that perhaps we were observing a technological milestone that would inaugurate a new digital era for the Olympic Games, even promising to put an end to paper tickets that were so common in previous editions (Campaing, 2016).

THE IMPACTS OF THE PANDEMIC ON THE EVENT PLANNING

Unlike past Olympic editions where several problems were observed in the delivery schedule of the venues (Baroghi, Ribeiro, & Lourenço 2018), Tokyo starts the year 2020 with most of the infrastructure designed for the Games already concluded. Due to the sense of commitment characteristic of Japanese culture, about 8 months before the Games it was already possible to see the new Olympic stadium hosting its first test events. In general, there was the feeling that everything was going according to plan, and as much as depended on local organization, the month of July 2020 would be reached without major complications. At that point, perhaps the only thing threatening the Games would be a new Tsunami of proportions that had occurred in Fukushima 10 years earlier (Holt, Campbell, & Nikitin, 2012).

The natural disasters that routinely hit Japan was something that had always bothered the IOC since the beginning of its candidacy. With this in mind, some adaptations had to be made to the original project such as the removal of sailing sports from Tokyo Bay due to the risk of Tsunamis. What was not imagined, however, was that a new epidemic of large proportions could affect the progress of the 2020 Olympic Games, especially because in the last 30 years humanity ended up learning to live with several viral outbreaks as observed in the cases of Sars (2002), Mers (2012), and Ebola (2014) (BBC, 2020).

The health threat, however, had already been present in other Olympic editions such as in the case of the Antwerp Games in 1920 when the world was still recovering from the Spanish flu that left more than 50 million dead between 1917 and 1918. In addition to this case, the Mexico Games in 1968 coexisted with the Hong Kong Flu, which killed 1 million people in the world in that period. Japan itself, at the Winter Olympics in Nagano (1998), witnessed an outbreak of the flu virus that killed

1,500 children and infected around 200 people linked to the organization of the Games. More recently, the Rio 2016 Games came to be threatened by a Zika epidemic, which was caused by mosquito bites and infected more than 1.5 million people in 2015 (Dom Total, 2020).

Initially it was not known for sure the proportions that COVID-19 could reach. However, with the escalation of cases and the increase in international pressure, there was no alternative but to postpone the Olympic Games. From that moment on, a period of great uncertainty took place for two main reasons: (1) historically it has been observed that large epidemics take more than 12 months to be controlled either by herd immunity or by the development of a vaccine; and (2) there would hardly be space for another postponement given that in the following years the Olympic calendar was already filled with the Beijing Winter Games in 2022 and the Paris Summer Games in 2024.

Shortly after the postponement decision, Nakami and his team realized that the complexity of the decision was much greater than imagined as the number of affected parties involved was enormous. At that time, it was not just about stopping building projects still in progress or a possible refund of tickets already sold, the postponement directly affected the planning of athletes and delegations, companies, suppliers with contracts already signed, and even people who would move to the Olympic village after the games and had to postpone their life plans. Although some of these costs can be calculated quantitatively, others are not so obvious. For example, what is the cost for an athlete in preparation to miss an Olympic cycle?

The decision to postpone was taken so close to the original date of the Olympic Games that basically all the communication had already been prepared under the name Tokyo 2020. In addition to the marketing campaigns of sponsoring companies that were already in the media, changing the name would require, among other efforts, the need to change the layout of the arenas, volunteer uniforms, and promotional material distributed throughout the 72 official stores across Japan ranging from US$ 2.00 pendants to limited editions of solid gold bars of US$ 15,000. The possibility of updating the name to Tokyo 2021 was even considered at first but was soon discarded as it was realized that these efforts would cost at least an additional US$ 1.2 billion and countless hours of marketing efforts. Amidst so many questions, the real possibility of a new postponement or even cancellation of the edition still loomed over the organizers.

At that moment, Nakami had more questions than answers and before he could even sit down with his team to start thinking about contingency plans for the obstacles that emerged, problems caused by the escalation of the pandemic kept arising. Most of the workers who were part of the Local Organizing Committee were foreign professionals from 28 different nationalities, many of whom were experts in the subject and used to following the Olympic Games throughout their editions. Right at the beginning of the global crisis, most of them had to leave Japan under the risk of not being able to return to their countries of origin due to the closing of the borders caused by the restrictive confinement measures.

Besides the loss of its most experienced employees, the Committee continued to suffer staff casualties across all of its 11 directories. Due to a dynamic that had never been seen before in its composition, a good part of the employees of the Organizing Committee were transferred from other government agencies and also from around 370 sponsoring companies. Despite this configuration generating savings with personnel and being in line with the fiscal responsibility model advocated in the Tokyo 2020 project, it ended up causing some problems. First, because a large part of these professionals had no affinity with the Olympic theme, which generated doubts in the ability of many to perform certain functions or assume specific projects. Another issue was that right at the beginning of the crisis, a good part of the employees transferred were requested back by their companies of origin, thus leaving a personnel vacuum at the most critical moment of the project.

The loss of the team directly affected Nakami's biggest problem at that time, which was precisely the contractual renegotiation with more than 75,000 suppliers. Due to the initial strategy of renting private spaces aiming at lower costs and environmental impacts, the renegotiation of these dates became the biggest complicating factor since most of the locations already had other commitments made for the following year. Nakami knew that without these spaces, which were responsible for hosting about 60% of the competitions, it would not be possible to deliver the Olympic Games in 2021 since there was no longer enough time or resources available to think about a plan B. So, along with the lack of personnel, the Committee also had to start managing all the rest of its operations remotely, which made it even more complicated given that most of the remaining employees still needed to adapt to the home office model.

These contractual renegotiations affected not only the Organizing Committee's operations, but they also took place in several other spheres and directly affected international federations and national Olympic confederations that had already planned to go to Tokyo in 2020. At the time of the postponement, only about 4 months before the Games, most of the national confederations had already mobilized their structure or had equipment on ships in route to Japan. Due to the air of uncertainty that was left and the high maintenance costs of this structure in Japan, these and other actors pressured the Organizing Committee for answers that they didn't have at the time. Nakami knew that something needed to be done so that the operational safety demonstrated over the last few years of Tokyo's preparation was restored.

UNCERTAINTIES AND PATHS TO THE FUTURE

Months had passed and the transition from 2020 to 2021 proved to be a turning point for the organization of the Games. By the end of 2020, the world had already registered 1.8 million deaths from COVID-19 (Grasso, 2020), and Nakami knew that even if the Olympic Games were to take place in mid-2021, little of the initial planning could be used in view of the adaptations that would be necessary to face the new reality of social distancing brought by COVID-19. It was already January again and the possibility of having the first closed-door Olympics in history reverberated more and more through the corridors of the Committee and in the conversations with the IOC, which together with the Japanese Government and the Government of Tokyo, shared the main decisions of a strategic nature regarding the Games.

Even though Nakami's decisions were limited by these three superior entities, he knew that at the operational level the Committee still had some autonomy to promote the necessary changes to make the Olympics viable. One great pressure it faced, however, was the growing unpopularity of the Games among the Japanese people, who were dissatisfied with the Games happening in middle of increasing COVID-19 cases in the world. A poll carried out at that time indicated that 47.1% of Japanese believed that there should be a further postponement due to the pandemic. Another 32.5% said that the Games should be completely cancelled, and only 14.5% believed that they should be held on schedule. In the following months, these numbers would increase even more, reaching 87.7% of the portion of the Japanese population concerned about holding the Olympics in 2021 (Almoguera, 2021).

Internally, the Committee also suffered from a lack of motivation from employees who were impacted by the lack of a project perspective, which they had dedicated years of their lives. Insecurity was evident in most of the teams either because of the uncertainty in the direction of the Pandemic around the world or because of the lack of clarity in the internal communication from the Committee's boards. For example, after adopting teleworking, it was common to see employees without things to do or having to redo activities due to sudden changes in planning. Another complaint was also in the number of excessive meetings, several times a day, which did not always leave a clear direction on the tasks that should be performed by each one, leaving the impression that they were adrift.

With the scenario of pressures and uncertainties that emerged, the Local Government was forced to announce that the 2021 Olympic Games would be held behind closed doors to the foreign public. This decision, while intending to appease local spirits, also aimed to reaffirm a speech of "Japanese Olympics for the Japanese", who were still recovering from the second greatest tragedy in its history. For Nakami, at the same time that this decision eased one side of the pressures, it generated new challenges that now needed to be overcome in the very short term. At that time, despite the original Tokyo project already contemplating the intensive use of technologies, it could never have been imagined that they would be so necessary.

Even though the adversity of the Pandemic could be the opportunity to present to the world a new model of digital Olympic Games, now in even greater evidence, Nakami knew that technology would hardly be able to solve all the problems caused by COVID-19. Despite the Olympic Games were undergoing a process of change, transferring to technologies the responsibility of compensating the lack of audience in the arenas, and making Tokyo a large-scale testing environment, could be a risky strategy. Parallel to this, several sectors such as tourism, hospitality, and services had already invested billions in experiences that traditionally were based on face-to-face contact with the user. How could these segments also take advantage of the digital transformation in order to minimize their losses?

Despite the unfavorable situation, Nakami was aware of the Organizing Committee's responsibility towards the Olympic movement and the Japanese population. Given the slow pace of vaccination in the world and in Japan, and the lack of perspective for bringing the pandemic under control in the short term, Nakami was aware that something needed to be done if he wanted to ensure the operational success of an Olympics in 2021. Everything would obviously depend on whether Nakami and his team would be able to first solve all the contractual problems and renegotiate the spaces that even months after the postponement were still reverberating internally. Amidst so many dilemmas, it was also necessary to think about the financial, image, operational, and technological implications of these actions. But among all of Nakami's reflections, there was one question that he couldn't get out of his head: would it be possible to prove to the world that a model of digital games with closed doors could prosper?

TEACHING NOTES

The Tokyo 2020 Olympic Games: impacts of COVID-19 and digital transformation

Abstract

The Olympic Games have been responsible for moving billions of dollars in direct and indirect investments during their winter and summer editions in the host cities, thus leaving tangible and intangible legacies that, if well used, can promote significant changes in the daily lives of societies. For the first time in the modern era of the Olympic Games, at the beginning of 2020, this cycle had to be postponed due to the COVID-19 pandemic that had killed more than 4 million people worldwide by July 2021. The teaching case puts the reader in the role of Hiroto Nakami, then President of the Tokyo 2020 Organizing Committee, to solve operational barriers and make it possible to create a successful digital Olympic Games model. It will be necessary to evaluate the financial and technological limitations in order to assess the impacts and legacies from these actions for the event and the local business environment. The case is suitable for multidisciplinary undergraduate and graduate students interested in discussing themes and concepts related to the area of strategic planning, crisis management, mega-events, and digital transformation.

Keywords: Olympic Games. Mega Sporting Events. Crisis Management. Digital Transformation. COVID-19.

Os Jogos Olímpicos de Tóquio 2020: impactos da COVID-19 e da transformação digital

Resumo

Os Jogos Olímpicos têm sido responsáveis por movimentar, ao longo das suas edições de inverno e verão, bilhões de dólares em investimentos diretos e indiretos nas cidades sede por onde passam, deixando assim legados tangíveis e intangíveis que, se bem aproveitados, podem promover significativas transformações no cotidiano das sociedades. Pela primeira vez na era moderna dos Jogos Olímpicos, no início de 2020, esse ciclo teve que ser adiado por conta da Pandemia da COVID-19 que deixou, até julho de 2021 mais de 4 milhões de mortos no mundo. O caso coloca o leitor no papel de Hiroto Nakami, então Presidente do Comitê Organizador dos Jogos Olímpicos de Tóquio 2020, para resolver os entraves operacionais e possibilitar a criação de um modelo de Jogos Olímpicos digitais de sucesso, ainda que a portas fechadas. Para tal, será necessário avaliar os limitadores financeiros e tecnológicos, de forma a avaliar os impactos e legados dessas ações para o evento e o ambiente de negócios locais. O caso é indicado para estudantes de cursos de graduação e pós-graduação multidisciplinares interessados em discutir temas e conceitos ligados à área de planejamento estratégico, gestão de crises, grandes eventos, e transformação digital.

Palavras-chave: Jogos Olímpicos. Mega Eventos Esportivos. Gestão de Crises. Transformação Digital. COVID-19.

Juegos Olímpicos de Tokio 2020: impactos de la COVID-19 y transformación digital

Resumen

Los Juegos Olímpicos han sido responsables de mover miles de millones de dólares en inversiones directas e indirectas durante sus ediciones de invierno y verano en sus ciudades sede, dejando así legados tangibles e intangibles que, bien aprovechados, pueden promover cambios significativos en el la vida cotidiana de las sociedades. Por primera vez en la era moderna de los Juegos Olímpicos, a principios de 2020, este ciclo tuvo que ser pospuesto debido a la pandemia de COVID-19 que dejó más de 4 millones de muertos en el mundo hasta julio de 2021. El caso pone al lector en el papel de Hiroto Nakami, entonces presidente del Comité Organizador de Tokio 2020, para sortear las barreras operativas y hacer posible la creación de un exitoso modelo de Juegos Olímpicos digitales aunque a puerta cerrada. Para ello, será necesario sopesar las limitaciones financieras y tecnológicas con el fin de evaluar los impactos y legados de esas acciones para el evento y el entorno empresarial local. El caso es apto para estudiantes de cursos multidisciplinarios de grado y posgrado interesados en discutir temas y conceptos relacionados con las áreas de planificación estratégica, gestión de crisis, megaeventos y transformación digital.

Palabras clave: Juegos Olímpicos. Megaeventos deportivos. Gestión de crisis. Transformación digital. COVID-19.

Teaching objectives

The Case aims to put students in the position of the protagonist Hiroto Nakami, the President of the Tokyo 2020 Organizing Committee at the time, so that they can analyze possible scenarios and make decisions about the operational problems and dilemmas faced by the event's organization. Through a complex case, we seek to invite participants to reflect on the impacts of the pandemic on the already accelerated process of digitization of social relations. Many of these changes will be irreversible, directly impacting areas such as education, health, business, and the international sporting mega-events themselves. At the end of the discussion it is also intended that students be able to: (1) evaluate aspects of strategic planning in uncertainty scenarios; (2) understand the impacts of digital transformation on the world of sporting mega-events; and (3) measure the importance of new technologies in breaking paradigms and business models.

Target audience

The case is recommended for graduate students or those who are in their final years of their undergraduate studies in management courses. Its application is recommended for disciplines of sports management, strategic planning, information technology, and innovation that want to deal with concepts such as crisis management, planning of mega events, and digital transformation.

Sources of information

Data collection took place between the months of August 2020 and May 2021 through secondary data sources such as scientific articles, consultancy reports, and journalistic material and also through primary data sources such as semi-structured interviews with individuals holding positions of middle and senior management in key sectors from 18 different entities participating in the Tokyo 2020 Olympics ecosystem, including Tokyo 2020, the International Olympic Committee, UNESCO, the Brazilian Embassy in Tokyo, and the International Olympic Academy. This case was derived from a doctoral thesis research, which gathered the narrative of 21 interviewees with 12 hours and 43 minutes of recordings and 248 pages of primary content.

Suggested teaching plan

Assignment questions

1. Which characteristics differentiate the Tokyo 2020 project from the previous editions?
2. What are the main challenges faced by the organization due to the postponement?
3. In Nakami's place, how would you ensure the success of a closed-door Game model?

Discussion plan and analysis

This teaching plan considers that there has been prior preparation by the students and a 2-hour class, as proposed below:

- Beginning of class and division of the room into small groups of 4 to 5 students (5 minutes);
- Discussion in small groups (30 minutes);
- Case presentation (10 minutes);
- Plenary discussion (70 minutes);
- Closing (5 minutes).

Introduction

It is suggested to warm up the discussion by asking the students to contribute to the context (discussion question 1) in which the event takes place. At this point, the instructor can ask the following question to the class:

Given the situation in which the case occurs, which trends do you see affecting the international mega sporting environment?

At this point, it is suggested that the instructor take notes on the board, and the following transition question can be asked as the main spaces are filled:

TQ1: How do you traditionally follow the Olympic Games? How many have watched an Olympics in person?

The instructor should say at this point that even when the Olympics take place in its traditional model, only a minority ends up traveling to watch the Olympic Games in loco. Since the event began to be broadcast internationally in the mid-20th century, the vast majority of spectators have always followed the competitions remotely. Sports in general has been directly influenced by the digitalization process present in the world (Xiao et al., 2007). According to these authors, in addition to the emergence of new digital sports modalities, the so-called e-sports and technological advances have directly affected the way athletes prepare and the way in which the public interacts with them. Dugalić (2018) explains that digitalization in the world of sports can be thought even more broadly as it also transforms the ways of doing business through sports by opening up new possibilities for transmission, sponsorship, and media while retiring others.

With regard to the Olympic Games, especially in times of pandemic and social distancing, a rapid assimilation of technological attributes becomes even more important for the survival and sustainability of the model. Japan has historically been known for its proximity to technology and robotics, guided by digital transformation as one of the pillars of its bid for the 2020 Olympics. Just as happened in 1964 in the first games broadcasted via satellite to the world, 2020 held the promise that they would be the most technologically advanced Olympic Games ever seen (James, 2020).

With the postponement in 2020, the digitalization process that was underway could now be accelerated in order to propose an alteration to the adaptation that the sports world has been undergoing due to the pandemic. Thus, the technological applications inaugurated by Tokyo may become a trend to be absorbed by other editions in the future. Seele and Lock (2017) also added that digitalization would become part of one of the principles of sustainability, meaning that from the intensive use of digital platforms, it would be possible to save several non-renewable natural resources. This concept of sustainable digitalization is gaining more and more strength not only in large events, but also in several other business areas (Stuermer, Abu-Tayeh, & Myrach, 2016).

After a brief discussion of TQ1, we suggest that the instructor take the students to realize which of the trends raised are identified as perennial, that is, they are here to stay. At this point the instructor introduces the first topic of discussion through transition questions:

TQ2: Given the need and trend of digitization of the Games, how could the structure be in order to ensure a successful digital Olympics model even with closed doors?

Analysis

Discussion 1: How can we make strategic decisions if we don't know what the future will be like?

Among the various predictive methodologies already developed, scenario planning is one of the best processes capable of preparing organizations and individuals for the future (Garvin & Levesque, 2005). According to the authors, the first step of this method involves research that is qualified in understanding the main forces capable of moving the world and businesses in different directions. Based on this information, it is then possible to start thinking about a small number of possible futures, which will be accompanied by a set of strategic actions that will guide organizations within each of these scenarios.

According to Schwartz (1996), scenario planning was developed to break with uncertainty by designing multiple possibilities that prepare you for the different futures that may arise. Furthermore, the scenario exercise could also act as a catalyst to move the world a little in the direction you want. Schoemaker (1991) also adds to the discussion that, unlike operational strategic planning that generally presupposes a better option, scenario analysis allows multiple possibilities. Thus, this technique becomes particularly useful in environments of high change and uncertainty. Companies from many sectors use the technique to complement strategic planning, improving the decision-making process on investment decisions and competitive moves.

Scenario analysis involves several components that together promote a vision of different futures. The first element starts with choosing a **key problem**, which usually is a significant future decision or a strategic uncertainty that has important, long-term consequences. Many of the key problems take the form of a question, which for this discussion case we can consider as, "Would it be possible to prove to the world that a closed-door Digital Games model could prosper?"

Another key component to the model is the **driving forces**. These can be understood as themes and trends that will influence the key problem, which is subdivided into 4 main categories: social dynamics, economic, political, and technological. Brief comments on how each of these categories behave in the case analyzed can be seen below:

- **Social dynamics:** in general terms, the social context of the Tokyo Olympic Games was unfavorable. The Organizing Committee and other competent agencies struggled against the low popularity of the games and the great dissatisfaction of the Japanese population, while also facing the escalation of COVID-19 cases in the world and the delay in vaccination.
- **Economic:** in this arena there were also major limitations since the project's budget had already been exceeded with even more pressure due to the additional costs with the postponement. Not only the Committee, but the entire local business environment also had to deal with the negative economic repercussions of holding the Olympics behind closed doors and without the international public.
- **Political:** it was possible to observe some attritions between the Japanese government, the IOC, and other Olympic committees of the countries since the decision to maintain the Olympics at any cost in 2021 had different opinions. Although Nakami did not have interference in most strategic decisions of the Games, the repercussions fall on his operations.
- **Technological:** the Tokyo Olympics, since its inception, were already intended to be the most technological Games in history with the presentation of several innovations that promised to take the experience of the public and athletes to a new level. Still, many of these had not yet been tested on a large scale, so their impacts and capabilities were still uncertain.

The model also predicts that these driving forces differ in terms of uncertainty and predictability with more unpredictable components having the ability to more significantly affect how the future influences the key problem (Ogilvy & Schwartz, 2004). In this sense, the two most influential driving forces would be classified as **critical uncertainties**. Following the line of discussion in the case of Tokyo, we could highlight the technological and social dynamics as the most critical uncertainties considering that, based on their performance, would have the greatest power to influence the others positively or negatively.

After that, each critical uncertainty would be transformed into an uncertainty axis with opposite cases at each end. The two axes when combined would be responsible for forming a 2x2 **scenario matrix** with four quadrants of uncertainty or futures to be explored. Continuing the discussion of the case, the first uncertainty matrix that includes the technological variable could consider the escalation or retraction of digital transformation in the world. The second axis of the social dynamics variable could be considered as continuing or ending social distancing practices in the world. These two axes, when combined, produce 4 distinct futures.

These different futures, called **scenarios**, are plausible hypotheses of how the world could unfold and are created with the objective of map risks and opportunities for the organization. According to Wilkinson (1995), there are no good or bad, desirable or undesirable scenarios. They are a mix of both. In the case of the international sporting mega-events analyzed here, a future in which digital transformation advances along with maintaining the need for social distancing, it would be

possible to increasingly observe a closed-door model with intensive use of technologies. On the other hand, if we consider a scenario of deceleration of digital transformation and the end of the need for social distancing, it may be that the traditional model of events with people in loco returns with more strength and technology be left in the background.

In turn, Millett (2003) contributes by saying that in order to increase the probability that scenarios are understood as realistic, it is necessary to understand how the world got there. For this, it is important to build coherent narratives or stories free from stereotypes. After creating these narratives, the central question should then be returned, placing the organizations in each of the scenarios in order to explore each **implication**. This effort aims to identify the strengths and vulnerabilities responsible for filling the gaps that will support critical business decisions.

Finally, it is also necessary to identify the **warning signs**, which are important indicators to highlight the likely emergence of one or another scenario. These signals are responsible for identifying some paths the world is taking, which are also important for mid-way reassessments. If carefully selected, these signals can give the organization competitive market advantages by identifying early signals not yet observed by competitors.

After the initial orientation moment where the key problem was defined as the challenges of proving to the world that a closed-door model of Digital Games could prosper, we moved on to the next stage of exploration where the driving forces were identified and divided between uncertain (technological and social dynamics) and predictive (economic and political). With this, the construction of scenarios and narratives takes place, which will serve as a basis for the options to be considered by the protagonist.

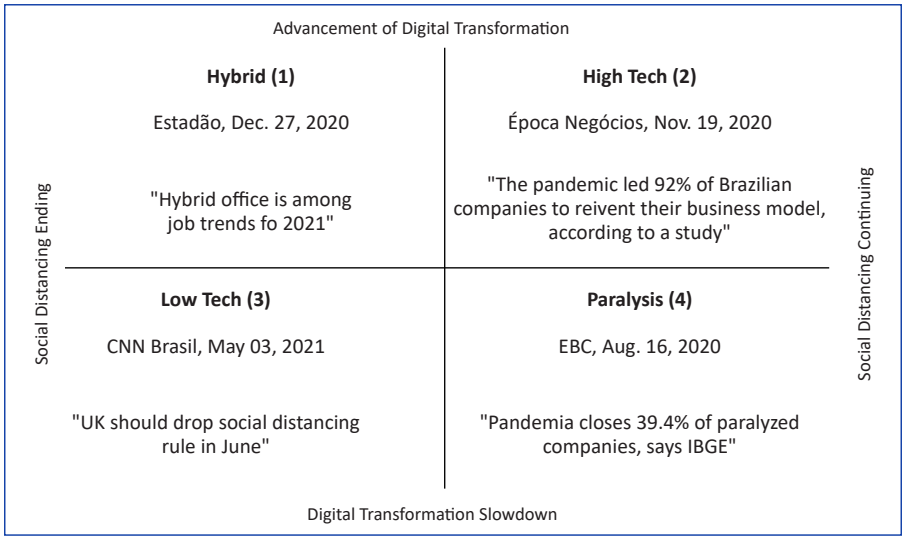
Scenario 1, called Hybrid, takes into account the advancement of digital transformation in parallel with the end of social distancing. As a form of narrative, we chose the article from *Estadão* newspaper from December 2020, which informs that flexibility in the combination of remote and face-to-face work should be one of the trends for the following year. As well as hybrid offices, other business models such as education itself must follow this same trend in the future. One of the main reasons for this trend is the observation that the flexible model tends to be the best option for people's mental health with positive impacts including on productivity and business.

Scenario 2, called High Tech, takes into account the same advance of digital transformation, but this time combined with the continuity of social distancing. As a form of narrative, we selected the *Época Negócios* report from November 2020 that highlights the high percentage of Brazilian companies that were forced to adapt their business model to a reality closer to the digital one given the lack of perspective caused by the pandemic. Faced with this scenario, many companies have had as one of their main concern to invest in more agile and robust IT infrastructures so that they can support long periods of innovation in digitization projects.

Scenario 3, called Paralysis, takes into account the continuity of social distancing, but combined with a slowdown in digital transformation, especially in specific sectors of the economy. To contribute to the narrative, the *Empresa Brasil de Comunicação* (EBC) report from August 2020 was used that points out that almost 40% of the businesses that chose to put their operations on hold at the beginning of the pandemic ended up having their doors permanently closed. Mostly belonging to the service sectors, these companies were not able to accelerate the process of adopting new technologies and keep up with the new characteristics of consumption, thus having to close down their operations.

Scenario 4, called Low Tech, combines the end of social distancing, causing a slowdown in digital transformation. As a narrative, we have the CNN report from May 2021 that informs the perspective of the United Kingdom, one of the most advanced countries in the world in the vaccination process, in abolishing the need for social distancing in the coming months of that year. Thus, this scenario takes into account the logic that this moment of pandemic and digitalization was fleeting and that people and businesses would be able to soon return to their previous status quo. The scenario matrix can be seen in Figure 1.

Figure 1
Tokyo 2020 Scenario Matrix



Source: Elaborated by the authors.

The instructor may ask the following question to start the final part of the discussion:

Discussion 2: Given the scenarios that were created, what implications and options do you see for Nakami?

The next phase involves generalizing the implications and options for the case protagonist to consider. It is the moment where the Organizing Committee must be placed at the center of the model so as to reflect on how each scenario impacts the **strategic choices** in order to determine gaps, vulnerabilities, and create a list of options that will guide the decision making process and the protagonist's decision. The matrix of options can be seen in Box 1.

Box 1
Tokyo 2020 Options Matrix

Scenario 1 – Hybrid	Scenario 2 – High Tech
Implications:	**Implications:**
• Pandemic slowdown	• Pandemic gets worse
• Greater receptivity to technological solutions	• Greater receptivity to technological solutions
• Decrease in unpopularity of the Games	• Increased unpopularity of the Games
• Olympics in 2021	• Olympics in 2021
Strategic options:	**Strategic options:**
• Japanese onsite and international audience at home	• Japanese and international audience at home
• Operational team onsite, administrative at home	• Event focused on the digital experience
• International image promotion through technology	• Smaller but more technological arenas
• Hybrid experience, union of tradition and technology	• Readmission of foreign staff via home office

Continue

Scenario 4 – Low Tech	Scenario 3 – Paralysis
Implications:	**Implications:**
• Pandemic slow down	• Pandemic gets worse
• Less receptivity to technological solutions	• Less receptivity to technological solutions
• Decrease in unpopularity of the Games	• Increased unpopularity of the Games
• Olympics in 2021	• Will we have the Olympics in 2021?
Strategic options:	**Strategic options:**
• Japanese and international audience (vaccinated) onsite	• Japanese and international audience at home
• Readmission of foreign team	• Event focused on sports competitions
• Local actions to encourage tourism	• Alternative and smaller arenas
• Focus on viewer experience	• New Olympic postponement or cancellation

Source: Elaborated by the authors.

At this point, it is important to also try to identify the most robust options, which are those that are best suited to a greater variability of scenarios or that may present low cost or risk in order to enable the organization to act quickly. Thus, the most robust options from the point of view of adaptability can be identified as: (1) Japanese and international audience at home, (2) Readmission of foreign staff via home office, (3) Small, but more technological venues, and (4) International image promotion through technology.

Heijden (1997) points out, however, that for a scenario strategy to be successful, it needs to be monitored and revised periodically. Also, because many of the strategies can only be applied in specific scenarios, it would be necessary to create warning signs that indicate the likely emergence of one scenario to the detriment of the other. Some of these signs applied to the case analyzed here could be described as increase or decrease in the number of cases and deaths from COVID-19 in the world, number of people vaccinated, emerging of new virus variants, increase or decrease in the price of IT solutions, indices for commercialization of products and services via digital media, among others.

After the students have discussed their decision preferences, which may be the same as or different from those presented, the instructor should point out that different scenario probabilities can only be estimated and not known exactly as they depend on external variables beyond the control of the Organizing Committee.

Closing

At the end, the instructor can also close the case with a poll asking the participants to put themselves once again in the protagonist's shoes, as suggested:

Abstracting from the Olympics context, how do you believe these scenarios and trends that emerged from the case end up impacting the business world as a whole?

DISCLAIMER

There are no conflicts of interest to be reported by the authors. The protagonists described in the case are unreal and were created for educational purposes only.

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Eduardo Russo
https://orcid.org/0000-0003-3094-9244

Master's Degree in International Management from the Institut d'Administration des Entreprises, University of Bordeaux (IAE-Bordeaux); Ph.D. Candidate in Business Administration at the COPPEAD Graduate School of Business, Federal University of Rio de Janeiro (COPPEAD/UFRJ). E-mail: eduardo.russo@coppead.ufrj.br

Ariane Roder Figueira
https://orcid.org/0000-0002-2900-3040

Ph.D. in Political Science from the University of São Paulo (PPGCP/USP); Associate Professor at the COPPEAD Graduate School of Business, Federal University of Rio de Janeiro (COPPEAD/UFRJ). E-mail: ariane.roder@coppead.ufrj.br

Clarice Secches Kogut
https://orcid.org/0000-0002-4760-654X

Ph.D. in Business Administration from the COPPEAD Graduate School of Business, Federal University of Rio de Janeiro (COPPEAD/UFRJ); Post-Ph.D. in Business Administration from the IAG Business School, Pontifical Catholic University of Rio de Janeiro (IAG/PUC-RIO); Collaborating Professor and Researcher in International Business at the COPPEAD Graduate School of Business, Federal University of Rio de Janeiro (COPPEAD/UFRJ). E-mail: clarice.kogut@coppead.ufrj.br

Renato Dourado Cotta de Mello
https://orcid.org/0000-0003-2345-1202

Ph.D. in Production Engineering from the Alberto Luiz Coimbra Institute for Graduate Studies and Research in Engineering, Federal University of Rio de Janeiro (COPPE/UFRJ); Associate Professor at the COPPEAD Graduate School of Business, Federal University of Rio de Janeiro (COPPEAD/UFRJ). E-mail: renato@coppead.ufrj.br