

# Organization and analysis of costs related to the participation of judo athletes in international competitions during the pandemic period.

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**Abstract**— he COVID-19 pandemic, emerging a century after the Spanish flu, posed unprecedented challenges to global health and various sectors, including sports. This article examines the profound impact of the pandemic on the sport of judo, exploring the adaptations, protocols, and challenges faced by the International Judo Federation (IJF), athletes, and organizers. The study analyzes the dynamics of the virus, preventive measures, and the development of judo-specific protocols, highlighting the need for a collective global response. Unique challenges faced by judo athletes, coaches, and organizers are discussed, including changes in training processes, isolation measures, and the economic impact on the sports industry. The study presents a detailed overview of the IJF's COVID-19 protocol, encompassing vaccination requirements, testing procedures, and entry conditions for participants. The judo community's response to the pandemic is contextualized within the broader context of global sports, emphasizing the need for innovative solutions and collaborative efforts. The article concludes with a comprehensive analysis of the financial implications of the pandemic on judo competitions, revealing a substantial increase in costs due to health and safety protocols. The global economic impact on the sports industry is outlined, emphasizing the need for targeted assistance and the exploration of digital solutions.

**Keywords**— Judo, sport management, Covid-19 pandemic

## I. INTRODUCTION

Pandemic in the history of our globe occurs once every 100 years (Kałucka 2020). The Covid-19 pandemic appeared exactly one hundred years after the Spanish flu. In 2019, a flu-like infectious viral disease was detected in China, and soon all

over the world. The initial symptoms were confusing, as they were mainly cough, runny nose, and high fever. Soon, everyone around the world realized that these symptoms signaled something much worse than the regular flu. When this new form of the coronavirus family (SARS-CoV-2) emerged, it was a great lesson for all the inhabitants of the earth (Lima et al. 2020, Wang et al. 2020). What we could see in disaster movies suddenly became a reality. The collective action of countries around the world led to the search for the best recipes, procedures to save as many people as possible. The development of the pandemic in the world took place at different rates in different regions, and the procedures of individual countries produced different effects. Symptoms were examined, reactions were observed, the spread of the virus around the world was monitored, and the most effective preventive procedures were sought. Dozens of vaccines were developed, but only a few were effective (Zawilska et al. 2021).

When vaccines finally appeared, problems with distribution and production arose, and most importantly, convincing an already experienced population of the effectiveness of vaccines and compliance with proposed procedures. In the public space, media, and social media, "information bombs" and disorientation appeared in the flood of information coming from different sources and channels (Kashte et al. 2021, Rotshild et al. 2021).

The actions of the International Judo Federation. This duality of a life-threatening disease and a large part of the asymptomatic population led to the decision to completely stop practicing sports, just like most other sectors. Judo had to stop

to minimize the risk of spreading the virus during training, competitions, and meetings. Judo, as a contact sport, is in a family where there is an even greater risk (de Souza et al. 2020, Morales et al. 2021). The COVID-19 pandemic has had a significant impact on the sport of judo. As a contact sport, judo has been deemed unsafe during the pandemic due to the high risk of transmission through droplets, breath, or saliva. As a result, many important international, regional, and national judo events have been canceled or postponed since the pandemic began. In 2020, no judo competitions were held following the announcement of the pandemic.

The observation and analysis of existing cases have shown that the incubation period of the virus ranges from 2 to 14 days, with an average time of 4-6 days (Peckham et al. 2020). This short period necessitates frequent PCR tests to detect and prevent the spread of the virus among the judo community (Teymouri et al. 2021). Until effective prevention methods, such as vaccinations, become widely available, and until the conduct of classes without safety measures is globally accepted, all participants in any IJF event will need to follow the same protocol to protect themselves and others. They have implemented measures such as pre-event testing, post-event monitoring, on-site precautions like wearing masks and washing hands, and the use of isolation zones, "bubbles," to protect themselves and others in the spirit of unity and solidarity, which is enshrined in the judo moral code.

The COVID-19 pandemic has challenged the judo community worldwide, but judo practitioners have risen to the occasion by applying the principles of mutual respect, responsibility, and safety. The judo community has achieved a significant milestone in managing the COVID-19 pandemic. Exemplary cooperation in mitigating the risk, combined with the changing nature of the virus, has led to the proven conclusion that there is reduced risk for all, which must be reflected in the COVID-19 protocol of the International Judo Federation (IJF).

The pandemic has led to the implementation of new, unprecedented procedures under the IJF COVID-19 protocol, which have resulted in disqualifications and the exclusion of players from competitions. The senior group was the most affected in the preparation and elimination for the Tokyo 2020 Olympic Games, which eventually took place in 2021. Therefore, the problem of how to continue the process of preparing players and adapt it to specific organizational and financial conditions becomes an important issue.

## II. SPORTS TRAINING IN JUDO AND START IN THE COMPETITION DURING THE OUTBREAK

The pandemic has presented challenges to professional sports training, with regulations in different countries and regions prohibiting physical contact. The closure of training facilities and the requirement to wear masks during training have made physical activity challenging. As a contact sport, judo has required special procedures to ensure the safety of participants during competitions. Few judo tournaments were

held during the pandemic, with the few that did take place, being held under very uncertain and changing circumstances. In addition to being vaccinated according to WHO guidelines, participants were also required to undergo frequent testing and follow strict protocols to ensure their safety and that of others. Even if it is not mandatory, mask wearing regulations in a given country were published in the event description. Only individuals with a negative COVID-19 test result were allowed to enter the official venue on the day of the competition, starting from the official transportation to the venue. In case of a positive test result for one or more team members, the entire team was subject to quarantine. The quarantine period took place at a hotel indicated by the judo competition organizer at the expense of the interested parties.

- New regulations regarding the organization of events and sports competitions

In most countries, the number of athletes allowed to participate in competitions has been significantly reduced due to the square meter ratio. No more than 150 participants may attend sporting events (competitions). Based on the exchange of information and experience, procedures have been introduced:

- D for Distance
- D for Disinfection
- M for Mask
- A for the STOP COVID – ProteGO Safe app
- W for Ventilation Maintaining a distance of at least 1.5 meters from other people, frequent hand washing with soap and water, and avoiding touching the face.

Sports competitions and events – without an audience. In order to limit the spread or potential exposure of athletes to infection, it was established that all sporting events take place without an audience. Vaccinated athletes who passed tests participated in competitions, which were divided into special zones of sanitary regime. Competitions were held without outsiders who did not go through the entire testing procedure. Before entering the competition hall, hand disinfection, mandatory masks, warm-up, and finally the fight! Handshaking after the fight was prohibited. Medals were awarded without a handshake. Athletes were required to wear masks during the ceremony. To complete the formalities, athletes, coaches, and officials were also tested for the presence of the coronavirus after the competition. Depending on the regulations of a given country, a certificate was required at the border. All of these behaviors were aimed at developing a procedure that would allow for the continuation of judo competition. Governments and non-governmental organizations exchanged information, providing sports clubs and organizations worldwide with guidance on health and safety and other international standards and protocols that would be applicable to future sporting events and the safe conditions for their organization. This would enable all stakeholders to collaborate as a team to meet current challenges and facilitate future sporting events that are safe for everyone.

TABEL 1. JUDO FEDERATION

1st series of vaccination	1 dose (Janssen, Sputnik Lite, or other)	Minimum 28 days from receiving the dose	Maximum 6 months from receiving the dose
	2 doses of any 2 dose vaccines	Minimum 14 days from the 2nd dose	Maximum 6 months from the 2nd dose
	Recovery from infection and 1 dose	Minimum 14 days from receiving the dose	Maximum 6 months from receiving the dose
	1 dose and recovery from infection	Minimum 5 days from the positive PCR	Maximum 6 months from the positive PCR
Additional series of vaccination	Booster/revaccination dose(s)	From the day of the last dose	To be determined by the WHO, currently no end of validity
Recovery	Recovery from infection	Minimum 5 days from the positive PCR	Maximum 6 months from the positive PCR

Source: COVID-19 protocol information from the International Judo Federation (IJF).

Each country has its own entry requirements. Each is responsible for complying with the applicable entry rules (validity of passport, visas, entry and exit permits, COVID-19, etc.) of the host country. The sports ecosystem, which includes producers, broadcasters, fans, companies, owners, and athletes, had to find new and innovative solutions to mitigate the negative effects of COVID-19 on the sports world. This includes finding ways to engage fans to ensure event safety. Judo in the time of the pandemic - challenges for athletes, organizers, and trainers

The outbreak of the COVID-19 pandemic has affected many aspects of life around the world, including sports. Judo, as a contact sport, faced many challenges during this time. The International Judo Federation (IJF) had to adapt to the new reality and implement new rules and procedures to ensure the safety of athletes, officials, and spectators.

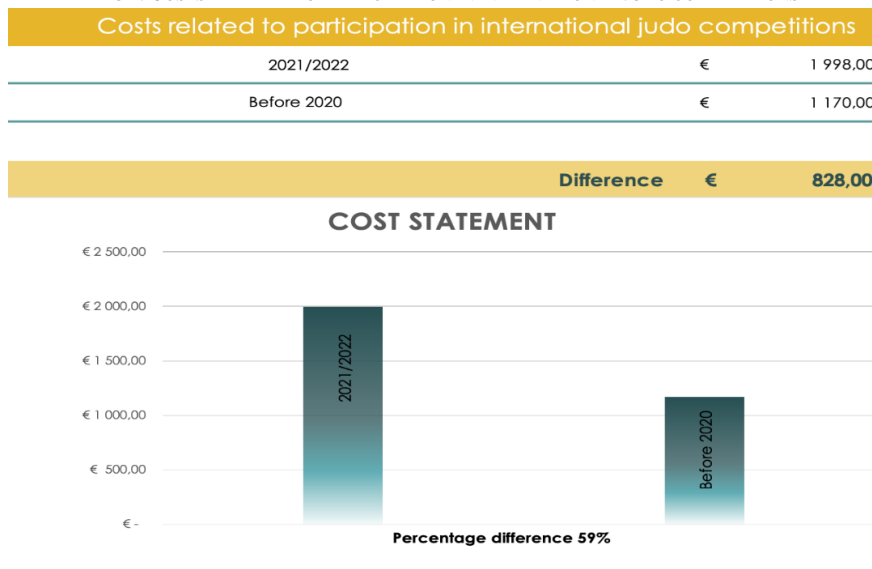
Local Organizing Committees (LOC) had to ensure that all relevant and applicable actions in their country were published in the event's communication description. National Judo Federations had to ensure that they had the consent of each team member, and in the case of a minor, the consent of their parent or guardian. If a delegate did not give their consent, the National Federation had to inform the IJF by writing to registration@ijf.org.

Changes from the athlete's perspective. The pandemic period was a difficult time for many people around the world. On

March 30, 2020, the International Olympic Committee announced that the Olympics would take place from July 23 to August 8, 2021. We all had to learn to live in a new reality. From 2021, the competition and qualifications continued.

Judo athletes and other sportsmen and women fought for their dreams and Olympic qualifications. Sport had a difficult task due to its specific nature. Isolating athletes during preparation. The training process changed significantly, individualization occurred due to the lack of access to sports infrastructure, and the reconstruction of micro and macro cycles of athlete preparation. Coaches had to take into account many new and changing factors. As we all know, competing in international competitions required coordination of a lot of data. Athletes and coaches had to consider a contingency plan in case of coronavirus infection. This was a time when access to medical services was very difficult, which means that all procedures automatically lengthened, not to mention statistically occurring athlete injuries, whose surgery and rehabilitation were also postponed. Athletes also had limited access to central funding and private sponsors, for whom the priority was to maintain the financial condition of their companies. Athletes were not spoiled during these times, and they only showed them a more winding road to achieving their sports success

FIG 1. COSTS RELATED TO PARTICIPATION IN INTERNATIONAL JUDO COMPETITIONS



Analysis of the cost of one competitor's trip to a judo competition across Europe - a four-day trip

Source: own elaboratio

FIG. 1 AVERAGE EXPENSES FOR JUDO COMPETITORS BEFORE 2020

Average expenses related to travelling to judo competitions before 2020	
Position	Average price
Transportation - Plane, Bus	€ 400,00
Travel Insurance	€ 55,00
Vaccinations against Covid	€ -
Hotel /Hotels - covid procedure	€ 400,00
Possible forced quarantine	€ -
Fee Competition	€ 75,00
Food	€ 240,00
Covid tests	€ -
Analysis of a competitor's trip to a judo tournament (four-day) trip within Europe	

Source: own elaboration

FIG. 2. AVERAGED COSTS FOR JUDO COMPETITORS IN 2021/2022

Averaged costs of trips to judo competitions 2021/2022	
Position	Average price
Transportation - Plane, Bus	€ 550,00
Travel Insurance	€ 78,00
Vaccinations against Covid	€ 150,00
Hotel /Hotels - covid procedure	€ 600,00
Possible forced quarantine	€ -
Fee Competition	€ 150,00
Food	€ 320,00
Covid tests	€ 150,00
Analysis of the cost of one competitor's trip to a judo competition across Europe - a four-day trip	

Source: own elaboration

### III. ADAPTATION CHANGES IN THE SCOPE OF ORGANIZATION AND TRAINING IN JUDO

Changes from the perspective of national judo associations. Lack of stability, additional unforeseen budget costs, unstable regulations, high organizational risk, and lack of support from cities and local governments, which, given the situation in the world, were focused on various coronavirus-related funds. Costly trips of the national judo team often ended in quarantine and additional costs related to procedures and the simultaneous lack of points in Olympic qualifications. Logistic problems - dynamically changing regulations regarding transport and international exchange caused problems in moving or even reaching the target competitions. Since the first lockdown introduced in 2020, the regulations have changed several times. Temporary hotel closures, adherence to sanitary regimes, closed pools, saunas, and restaurants. All of this had an impact on a significant increase in hotel prices. There were cases

where, due to safety, competitions were canceled by the decision of a given government or region the day before the competition. Taking into account the increase in costs related to maintaining sanitary safety, there was an increase in the cost of camps, sports gatherings, and trips to competitions.

Changes from the perspective of the competition organizer. The possibility and validity of organizing large international events during the pandemic period were very low. Starting from sanitary procedures that imposed many additional costs and obligations related to restrictions. Disinfectants, gloves, masks, closed zones requiring additional employees to monitor procedures, documents, reports, and related administration. The slogan "event safety" has taken on new significance, changing the role of the event organizer and tasks in this matter. The legal responsibility of the organizer of a public event (not just mass events) has also changed. The cost of renting a hall, the cost of hotel rental, the cost of service + maintaining them in a sanitary regime has increased. Costs related to COVID procedures, the price of all kinds of insurance has increased. High investment risk, government and local government units supporting event organization withdrew from projects. High economic instability and unpredictability halted decisions of potential and current sponsors.

#### Summary

In summary, analyzing the example of the costs of athletes' participation in judo competitions in Europe during the pandemic, it can be observed that costs have increased by up to 59%. This is due to increased costs associated with the implementation of health and safety protocols, such as COVID-19 testing, equipment disinfection, and restrictions on the number of participants, as well as additional requirements regarding accommodation and transportation.

However, it should be noted that costs may vary depending on the country where the competition takes place and the individual needs and requirements of the athletes. The global value of the sports industry is estimated at \$756 billion annually. In the face of COVID-19, millions of jobs are threatened worldwide, not only for athletes but also for people in related sectors such as retail trade and sports services related to leagues and events, including travel, tourism, infrastructure, transportation, catering, and media broadcasting.

Professional athletes are also under pressure to change their training schedules while trying to maintain their fitness at home and risk losing professional sponsors who may not support them according to their initial agreements. For example, the cost of organizing the Olympic Games in Tokyo has already reached \$15.6 billion, more than twice the original estimate. The cost of pandemic safety measures alone amounted to \$3 billion, and food, beverage, and souvenir manufacturers withdrew from sponsorship contracts because they had no one to sell their products to. Even Toyota, the main sponsor of the Olympics, withdrew its "Olympic" advertisements from Japanese television. Even for Japan, organizing the Olympics has become a problem, and the pandemic has led to talk of minimizing losses rather than making profits.

Sport and physical exercise are particularly important in circumstances caused by the pandemic because they strengthen

physical and mental resilience. According to data, isolation has caused some people to engage in individual sports more frequently and actively, while others have observed a lack of physical activity during isolation, which could have potential consequences for public health.

Sports facilities and stadiums, as essential elements of the social ecosystem of sports and culture in our society, need to work at full capacity after reopening, which will certainly have a significant impact on the health and well-being of citizens and revive the economy, both now and in the future.

The pandemic has very harmful effects on the entire sector at all levels, especially in sports organizations and clubs, gyms, and fitness centers, among athletes, coaches, sports staff, and negatively affects the business of sports, including sports event organizers and sports media. The road to recovery will be difficult, and targeted assistance will be needed. During the crisis, digital solutions such as sports apps were used more frequently. Certainly, further digitization of the sports sector will increase its resilience to future crises. The pandemic and its consequences have created new challenges for the sports industry, which must adapt to the changing circumstances and be creative in finding new solutions to keep sports accessible and enjoyable for everyone.

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