

RESILIENCE AND ADAPTATION: EVALUATING THE SOCIOECONOMIC IMPACT OF COVID-19 ON HANDBALL

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Abstract: The analysis of the socio-economic crisis and its impact on handball is based on concrete statistical evidence of the financial challenges imposed on handball sector during the COVID-19 crisis. This was exemplified in the cancellation and postponement of sports events. This study further explores the psychological impact of the COVID-19 crisis on players and staff. Alternative training methods, including virtual coaching and individual home training programmes were emphasised as crucial player development strategies. Moreover, the research highlights the important role of financial release packages in mitigating the socio-economic and psychological crisis. The employment decline in handball sector and surrounding industries is being examined along with the sector's adaptive policies to ensure optimal health conditions. The research aims at defining strategic responses to facilitate the handball tradition continuation and to ensure its visibility by mitigating the financial crisis. It also underlines the long-term shift towards digital and online platforms in sports management and fan engagement. Further research of handball development after the pandemic crisis and predominant online engagement is required. The innovative approaches in sports sponsorship along with the novel digital platforms and social media usage for online engagement are examined. The socio-economic influence of handball as a factor in general economy, both on global and local scale, is recognised through its interconnectedness with travel, commerce and wide range of businesses.

Keywords: handball, COVID-19, sport, socioeconomic impact.

Field: Social Sciences and Humanities

1. INTRODUCTION

The outbreak of the COVID-19 pandemic has caused an unprecedented global crisis, affecting various sectors of society and the economy (de Boer et al., 2021; Ratten, 2020). The sport of handball, encompassing both professional and grassroots levels, has not been immune to the ramifications of the pandemic (Hermassi et al., 2021; Mon-López et al., 2020). The interruption of regular sporting events due to health and safety concerns and safety measures has resulted in a complex array of socioeconomic challenges within the sport (Kehl et al., 2021). Prior to the COVID-19 pandemic, analysis of the sponsorships data indicated a stable global growth in sports investments. In Central and South America investments in sports increased from \$3.5 billion in 2009 to \$4.6 billion in 2018. A similar trend was observed in North America where investments were continuously growing from \$16.5 billion in 2009 to \$24.6 billion in 2018. European sponsorships also saw an increase from \$12.1 billion in 2009 to \$17.6 billion in 2018, comparable to the Asia Pacific region, which demonstrated an increase in investments from \$10 billion in 2009 to \$16.6 billion (Jedel, 2019). However, the onset of COVID-19 has disrupted this growth trajectory (Dašić et al., 2020).

Although International Handball Federation (IHF) reported substantial financial pressures due to medical precautions during the 2019 outbreak (Morgan, 2020) in order to preserve athletes' health, handball sports in general showed unique tendency to quickly bounce back as seen in the example of 27th IHF Men's World Championship held in Egypt in January 2021 and 25th IHF Women's World Handball Championship in Spain in December 2021. Moreover, IHF Men's Youth Championship held in August 2023 clearly shows the signs of recovery, lining up 32 participating teams, eight more than the previous tournament in North Macedonia in 2019.

The research aims at determining the role of COVID-19 socio-economic influence on handball through tournament cancelation, revenues reduction from sponsorships, all consequently leading to players income decrease. Additionally, handball development in specific COVID-19 health protection regime is being examined (Dašić et al., 2020). Ultimately, correlation between socio-economic factors

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and handball performance under unprecedented circumstances will enable the sports sector governing bodies to control and prevent any possible future crisis by implementing policies, strategic planning and best practices identified to strengthen resilience identified in handball sector as an optimal model for creating general sport guidances (Wiltshire et al., 2022).

2. THE ECONOMIC FALLOUT OF PANDEMIC-INDUCED DISRUPTIONS IN HANDBALL

Due to the inability to hold scheduled handball events and at the same time being obliged to refund tickets and renegotiate contracts, the President of IHF, Hassan Moustaf, at the meeting with the chairs of the IHF's commissions on 27 April 2020 highlighted the considerable financial pressure experienced by the sport on a global scale, not just handball (Morgan, 2020). During the online meeting between European Handball Federation (EHF) President Michael Wieder and Moustaf in 2020 confirmed the cancellation trend. As a consequence, the 2021 Men's World Championship, originally planned for January 2021, was postponed. Furthermore, six qualification events for the Tokyo 2020 Olympic Games, three each for women's and men's teams, were rescheduled (Ogasawara et al., 2021). Moreover, the women's team events in Spain, Hungary and Montenegro were moved to 19-21 March 2021. The men's tournaments in France, Germany, and Norway, initially scheduled for 17-19 April 2020, were also rescheduled to 12-14 March 2021. The IHF also postponed the Women's Junior World Championships in Romania from 2-13 December 2020 to 1-13 July 2021 along with the Women's Youth World Championships in Croatia. This tournament was supposed to take place from 18th August to 29th September, but was similarly postponed to 11th October 2020 (Morgan, 2020). This evidence clearly suggests a significant loss of income in the form of prize money, performance bonuses and ancillary revenues reduction, directly influencing teams and players in the handball sector (Horky, 2021; Wiltshire et al., 2022).

These losses have in some cases necessitated even contract suspensions and terminations, as well as reduced investment in player growth. Professional players, whose incomes are often closely tied to tournament outcomes, have faced significant financial uncertainty (Font et al., 2021). This had an escalating effect on their mental health, which further exacerbated their roles within their social groups, both within their respective teams and in the domestic environment (Mon-López et al., 2020; Pons et al., 2020). The financial wellbeing of handball teams was also at risk (Ratten, 2020). Many relied on the revenue from tournaments to maintain their operations, pay staff, and invest in player development.

The ripple effects of financial losses extend beyond the immediate sphere of handball to the broader economy (Nauright et al., 2020). Tournaments often generate significant economic activity in host cities and countries, benefiting a wide range of businesses, including hospitality, travel and local commerce (Pons et al., 2020). The cancellation of handball events has, therefore, had a detrimental impact on these sectors, leading to a broader economic downturn in regions where handball is a significant contributor to the local economy. Furthermore, the pandemic has caused a shift in fan consumption of sporting events, with a shift from personal to online attendance, consequently escalating the financial crisis in handball. This has had a cascading effect on media and broadcasting rights, as well as the advertising industry connected to handball. The decrease in consumer and business spending related to handball has highlighted the sport's interconnectedness with the larger economic system and its vulnerability to global disruptions such as the COVID-19 pandemic (Gheorghe & Mereuță, 2020).

The pre-COVID-19 crisis handball clubs heavily relied on sponsorship and advertising as pivotal sources of revenue (Hutchins et al., 2019). The economic crisis forced innovative approaches in sports sponsorship, with a focus on digital engagement and online events. Traditional marketing strategies were replaced with original approaches using digital platforms and social media for online engagement in order to attract sponsors and maintain fan interest (Skinner & Smith, 2021). Adopting digital platforms is perceived not merely as a temporary measure but as a potential long-term shift in the sports sponsorship paradigm.

The socio-economic ladder position of players and staff decreased during the pandemic (Ratten, 2020). Players and staff had to adjust to reduced earnings, and the industry as a whole had to adapt to this new economic reality by exploring financial support mechanisms and advocating for relief packages to aid those most affected (Nauright et al., 2020).

3. THE CHALLENGES OF PLAYER DEVELOPMENT STRATEGIES

The COVID-19 pandemic has dramatically impacted the sport of handball, leading to changes in talent recruitment processes, player skill development, professional progression and overall game quality (Font et al., 2021; Jaszczur-Nowicki et al., 2022). Specifically, the suspension of regular sports competitions and training sessions has had direct consequences on identifying and nurturing young talents, limiting opportunities for their improvement and advancement in the sport (Asai et al., 2023; Fikenzler et al., 2021). As a result, there is a potential shortage of emerging players entering the sport in the future, which could lead to a talent deficit in the coming years. This interruption may also affect the strategic planning of clubs and national teams, which rely on a steady influx of talent to maintain competitive standards.

For professional players, the pandemic has resulted in reduced access to high-level training conditions and competitive play, which were crucial for maintaining and improving performance (Hermassi et al., 2021; Ogasawara et al., 2021, Batalha et al., 2023). The deterioration of performance was further worsened by the increased injury incidence rate (Soligard et al., 2023). The lack of regular training sessions and competitive matches has not only impeded players' skill development but could have also potentially led to a decrease in the overall quality of the game. This decline in quality may have long-term consequences for the appeal of handball as a spectator sport, which is vital for its economic viability.

In response to these challenges, handball clubs and associations were exploring alternative training methods, including virtual coaching and individual training programs, in order to continue player development (Ogasawara et al., 2021). While these innovative approaches are not a complete substitute for traditional training methods, they still provided a means to maintain player engagement and skill progression during the pandemic. Additionally, there was a need for strategic investment in player development programs to ensure that once regular training resumes, the sport can quickly return to its pre-pandemic growth trajectory.

The economic repercussions of the pandemic have also affected employment within the handball sector (Begović, 2022; Grix et al., 2021). The loss of employment within the handball sector contributed to wider economic challenges, including decreased spending power and increased demand for social support services (Grix et al., 2021). To mitigate these effects, there have been calls for interventions such as financial relief packages for the sports industry, retraining programs for those who have lost their jobs, and increased support for the self-employed and contractual workers in the sports sector. Such measures were essential not only for the immediate support of those affected but also for the long-term recovery and stability of handball as a professional sport.

4. STRATEGIES FOR HEALTH AND FINANCIAL SUSTAINABILITY

The onset of the COVID-19 pandemic has necessitated an enhanced focus on health and safety measures within the sport of handball, with significant financial implications and the need for operational adjustments to balance safety with sustainability (Skinner & Smith, 2021). The implementation of rigorous health and safety protocols has resulted in increased financial burdens on handball organisations. Costs associated with regular virus testing, sanitation measures, personal protective equipment and adjustments to venues in order to facilitate social distancing have placed considerable strain on the financial resources of clubs and event organisers (Kehl et al., 2021; Suárez-Iglesias et al., 2023). The investment in these preventive measures, while imperative for the safe resumption of sports activities, has led to an increase in operational costs without a corresponding increase in incomes, particularly given the restrictions on spectator attendance which traditionally contribute to match-day revenues (Gheorghe & Mereuță, 2020).

To navigate these challenges, handball organisations have had to adapt their operational procedures extensively. This has included the reorganisation of training schedules to reduce contacts, the redesign of facilities to ensure hygiene protocols are followed and the management of travel arrangements to comply with various international and local travel restrictions. These changes have required a reassessment of logistical and strategic planning, with a focus on minimising risk while maintaining a level of operational continuity. The primary challenge has been to balance the imperatives of health and safety with the financial sustainability of handball as a sport. The handball sector's response to overall safety concerns has demonstrated adaptability and a commitment to the long-term sustainability of the sport.

5. CONCLUSION

This research has offered a comprehensive analysis of the socio-economic impact of the COVID-19 pandemic on the handball sector. The findings highlight the substantial financial losses due to cancelled or postponed events, the decrease in sponsorship and advertising revenue, the slowed growth and development of players, the significant loss of employment opportunities and the increased financial burden due to enhanced health and safety measures. These findings indicate clarify the socio-economic complexity of the pandemic's repercussions on handball. Financial instability was observed as a common factor across various facets of the sport, from grassroots to professional levels (Wiltshire et al., 2022). The results reflect a stark contrast to the pre-pandemic period when handball was experiencing growth. This downturn has highlighted the vulnerability of the sports industry to global disruptions and the need for improved risk management and crisis response strategies.

Comparing these findings with previous studies, it is evident that the challenges faced by handball were not isolated. Similar economic impacts have been documented in other sports, suggesting a sector-wide phenomenon that requires a unified approach to recovery of the sports industry. Previous research has often focused on the immediate impacts of the COVID-19 crisis. Building on their findings, this study extends the understanding of the medium-term effects of the pandemic and the responses that could shape the future of handball. The implications of these findings are significant for informed policy-making and the establishment of best practices by sports governing bodies. There is a clear need for policies that ensure financial resilience, such as emergency funds or insurance schemes specifically tailored for sports organisations. Additionally, the pandemic has highlighted the potential for digital engagement to provide alternative revenue streams, suggesting a shift in marketing and operational strategies that may be beneficial in the future. Future practices must also prioritise the health and safety of individuals, incorporating the lessons learned from implementing COVID-19 safety protocols. Handball governing bodies must develop flexible yet robust operational plans that can adapt to similar crises, ensuring the continuity of sports activities without compromising the safety of participants.

Despite the challenges, the handball community has demonstrated commendable adaptability in the face of these adversities. Online training and coaching initiatives have ensured unhindered player development, and the focus on health has led to enhanced protocols that will benefit the sport well into the future. These positive outcomes, reflected in digital transformation, innovation in player training, emphasis on health and well-being, and the cultivation of global solidarity, represent silver linings that have the potential to fortify handball against future crises. The lessons learned during the pandemic will serve as invaluable guides as the sport moves forward. The collective efforts of the handball community have not only helped to navigate this crisis but have also laid a foundation for a dynamic and sustainable future for the sport. The resilience and adaptability displayed offer a blueprint for navigating future challenges and harnessing the power of adversity to catalyse growth and development within the sport of handball.

In conclusion, the handball sector, like many others, faces a period of reconstruction and adaptation. The path to recovery will involve learning from this global crisis, implementing the necessary financial and operational safeguards, and innovating in the face of adversity. The resilience of handball will depend on the collective efforts of the clubs, players, organisers and governing bodies as they implement established strategies to successfully navigate through possible future crises and to ensure a sustainable future for the sport.

REFERENCES

- Asai, K., Nakase, J., Yoshimizu, R., Kimura, M., Kanayama, T., Yanatori, Y., Kitaoka, K., & Hiroyuki, T. (2023). Impact of the COVID-19 Pandemic on Training Sessions of Young Japanese Handball Players: A Questionnaire-Based Retrospective Cohort Study. *Asian Journal of Sports Medicine*, 14(3), e136774. <https://doi.org/10.5812/asjms-136774>
- Batalha, N., Sousa, J. P., Fernandes, O., Dias, E., Parraca, J. A., & Villafaina, S. (2023). Effects of an 11-Week Detraining, Imposed by the COVID-19 Confinement, on Handball Players' Shoulder Rotator Isokinetic Profile, Shoulder Range of Motion, and Ball Release Velocity. *Medicina*, 59(9), 1548. <https://doi.org/10.3390/medicina59091548>
- Begović, M. (2022). Effects of COVID-19 on society and sport a national response. *Managing Sport and Leisure*, 27(3), 241-246. <https://doi.org/10.1080/23750472.2020.1779115>
- Dašić, D. R., Tošić, M. Z., & Deletić, V. (2020). The impact of the COVID-19 pandemic on the advertising and sponsorship industry in sport. *Bizinfo (Blace)*, 11(2), 105-116. <https://doi.org/10.5937/bizinfo2002105D>
- de Boer, W. I., Mierau, J. O., Schoemaker, J., Viluma, L., Koning, R. H., & Lifelines Corona Research Initiative. (2021). The impact of the COVID-19 crisis on socioeconomic differences in physical activity behavior: Evidence from the Lifelines COVID-19 cohort study. *Preventive Medicine*, 153, 106823. <https://doi.org/10.1016/j.ypmed.2021.106823>
- Fikenzler, S., Fikenzler, K., Laufs, U., Falz, R., Pietrek, H., & Hepp, P. (2021). Impact of COVID-19 lockdown on endurance capacity of elite handball players. *The Journal of sports medicine and physical fitness*, 61(7), 977-982. <https://doi.org/10.1093/ajph/61.7.977>

- org/10.23736/S0022-4707.20.11501-9
- Font, R., Iruñia, A., Gutierrez, J. A., Salas, S., Vila, E., & Carmona, G. (2021). The effects of COVID-19 lockdown on jumping performance and aerobic capacity in elite handball players. *Biology of sport*, 38(4), 753–759. <https://doi.org/10.5114/biolsport.2021.109952>
- Gheorghe, C., & Mereuță, C. (2020). Changes in the 2019-2020 competition season, in the national handball league, as a result of the COVID-19 pandemic. *Annals of "Dunarea de Jos" University of Galati. Fascicle XV, Physical Education and Sport Management*, 2, 86–92. <https://doi.org/10.35219/efms.2020.2.10>
- Grix, J., Brannagan, P. M., Grimes, H., & Neville, R. (2021). The impact of Covid-19 on sport. *International journal of sport policy and politics*, 13(1), 1-12. <https://doi.org/10.1080/19406940.2020.1851285>
- Hermassi, S., Bouhaf, E. G., Bragazzi, N. L., Ichimura, S., Alsharji, K. E., Hayes, L. D., & Schwesig, R. (2021). Effects of Home Confinement on the Intensity of Physical Activity during the COVID-19 Outbreak in Team Handball According to Country, Gender, Competition Level, and Playing Position: A Worldwide Study. *International journal of environmental research and public health*, 18(8), 4050. <https://doi.org/10.3390/ijerph18084050>
- Horky, T. (2021). No sports, no spectators—no media, no money? The importance of spectators and broadcasting for professional sports during COVID-19. *Soccer & Society*, 22(1-2), 96-102. <https://doi.org/10.1080/14660970.2020.1790358>
- Hutchins, B., Li, B., & Rowe, D. (2019). Over-the-top sport: live streaming services, changing coverage rights markets and the growth of media sport portals. *Media, Culture & Society*, 41(7), 975-994. <https://doi.org/10.1177/0163443719857623>
- Jaszczur-Nowicki, J., Niżnikowski, T., Makaruk, H., Mastalerz, A., Porter, J., Biegajło, M., Niżnikowska, E., Markwell, L., Nogal, M., Łuba-Arnista, W., Arnista, P., & Romero-Ramos, O. (2022). Effect of Coronavirus 19 on Maintaining Balance in Skilled Athletes. *International journal of environmental research and public health*, 19(17), 10470. <https://doi.org/10.3390/ijerph191710470>
- Jedel, J. (2019). The funding of professional sports entities by state-owned companies and private institutions. The necessity or philanthropy?. *Baltic Journal of Health and Physical Activity, Suppl. 1*, 41-53. <https://doi.org/10.29359/BJHPA.2019.Suppl.1.04>
- Kehl, M., Strobl, H., Tittlbach, S., & Loss, J. (2021). The person who plays handball needs the ball, the contact and the community—changes in sport club activities due to the COVID-19 pandemic and its significance for sports clubs. *Gesundheitswesen*, 83(3), 159-165. <https://doi.org/10.1055/a-1341-1609>
- Morgan, L. (2020). IHF President discusses financial impact of COVID-19 on handball with commission heads. *insidethegames.biz*. <https://www.insidethegames.biz/articles/1093635/handball-officials-discuss-finance-virus>
- Mon-López, D., de la Rubia Riaza, A., Hontoria Galán, M., & Refoyo Roman, I. (2020). The Impact of Covid-19 and the Effect of Psychological Factors on Training Conditions of Handball Players. *International Journal of Environmental Research and Public Health*, 17(18), 6471. <https://doi.org/10.3390/ijerph17186471>
- Nauright, J., Zipp, S., & Kim, Y. H. (2020). The sports world in the era of COVID-19. *Sport in Society*, 23(11), 1703-1706. <https://doi.org/10.1080/17430437.2020.1834196>
- Ogasawara, I., Hamaguchi, S., Hasegawa, R., Akeda, Y., Ota, N., Revankar, G. S., Konda, S., Taguchi, T., Takanouchi, T., Imoto, K., Okimoto, N., Sakuma, K., Uchiyama, A., Yamasaki, K., Higashino, T., Tomono, K., & Nakata, K. (2021). Successful Reboot of High-Performance Sporting Activities by Japanese National Women's Handball Team in Tokyo, 2020 during the COVID-19 Pandemic: An Initiative Using the Japan Sports–Cyber Physical System (JS–CPS) of the Sports Research Innovation Project (SRIP). *International Journal of Environmental Research and Public Health*, 18(18), 9865. <https://doi.org/10.3390/ijerph18189865>
- Pons, J., Ramis, Y., Alcaraz, S., Jordana, A., Borrueco, M., & Torregrossa, M. (2020). Where Did All the Sport Go? Negative Impact of COVID-19 Lockdown on Life-Spheres and Mental Health of Spanish Young Athletes. *Frontiers in Psychology*, 11, 611872. <https://doi.org/10.3389/fpsyg.2020.611872>
- Ratten, V. (2020). Coronavirus disease (COVID-19) and sport entrepreneurship. *International Journal of Entrepreneurial Behavior & Research*, 26(6), 1379-1388. <https://doi.org/10.1108/IJEBR-06-2020-0387>
- Skinner, J., & Smith, A. C. (2021). Introduction: sport and COVID-19: impacts and challenges for the future (Volume 1). *European Sport Management Quarterly*, 21(3), 323-332. <https://doi.org/10.1080/16184742.2021.1925725>
- Soligard, T., Steffen, K., Palmer, D., Alonso, J. M., Bahr, R., Lopes, A. D., Dvorak, J., Grant, M. E., Meeuwisse, W., Mountjoy, M., Pena Costa, L. O., Salmina, N., Budgett, R., & Engebretsen, L. (2017). Sports injury and illness incidence in the Rio de Janeiro 2016 Olympic Summer Games: A prospective study of 11274 athletes from 207 countries. *British journal of sports medicine*, 51(17), 1265–1271. <https://doi.org/10.1136/bjsports-2017-097956>
- Suárez-Iglesias, D., Soto, D., Ayán Pérez, C., Martínez-de-Quel, Ó. (2023). The impact of COVID-19 on healthy habits and psychological well-being of Chilean female handball players. *E-balonmano.com: Journal of Sports Sciences*, 19(1), 1-12. <https://doi.org/10.17398/1885-7019.19.1>
- Wiltshire, H. D., Supriya, R., & Baker, J. S. (2022). COVID-19 Impact on the Sport Sector Economy and Athletic Performance. *Journal of Risk and Financial Management*, 15(4), 173. <https://doi.org/10.3390/jrfm15040173>