

Almir Mašala<sup>1</sup>, Haris Alić<sup>1</sup>, Dino Mujkić<sup>1</sup>, Munir Talović<sup>1</sup>, Šemso Ormanović<sup>1</sup>, Alen Ćirić<sup>1</sup> and Ajla Tubok<sup>1</sup>

# EFFECTS OF APPLICATION OF SPORTS MANAGEMENT DURING THE PANDEMIC COVID-19 TO INTERNATIONAL TOP SPORTS CLUBS FOOTBALL AND ULTIMATE FIGHT CHAMPIONSHIP

<sup>1</sup>Faculty of Sport and Physical Education of University of Sarajevo

Review paper:

## Abstract

Review paper *Effects of Application of Sports Management during Pandemic COVID-19 to International Top Sports Football Club and Ultimate Fight Championship*, based on the latest studies, relates to performance of structure of management of sport organizations during pandemic of COVID-19. Organizing sport competitions, tournaments, matches and trainings at this period of time, was considered as a great challenge, especially for the clubs which compete on international level. Additional challenge for sport organizations was compliance with epidemic measures dictated by WHO (World Health Organization). Focus analysis was related to organizing sport contents and responds to business and sports activities to pandemic of COVID-19 of international top-level sport football clubs, league of "five" and clubs of Ultimate Fight Championship. Analysis included of football clubs: F.C. Barcelona, F.C. Manchester United, AC Milan, F.C. Bayern München and F.C. Borussia Dortmund in relation to UFC teams: Straight Blast Gym Ireland, American Kick-box Academy (AKA), Xtreme Couture Mixed Martial Arts, American Top Team (ATT) of football and ultimate fight championship, during pandemic. Clubs, selected by method of random subject, based on sport results achieved on national levels of competition and four criteria were used, from domain of review papers, by PRISM methodology 1: all sources of data (magazines, published papers etc) in English; 2. Period of organization of sport competitions and football matches during the pandemic of COVID-19; 3. Evident differences, which occurred during pandemic COVID-19; 4. Published papers are focused on business and organizational form. There is significant difference in obtained financial effects and different innovative solutions, which can be used as new experiences in further studies, were offered.

**Key words:** pandemic COVID-19, crisis management, UFC, football, financial

## Introduction

Management of sport organizations, during pandemic of COVID-19, was exposed to a great challenge in the context of their existence. Sport managers had additional challenge to show their managing skills, during this crisis and to make sport work. (Vuk, N., Alić H., and Čolakhodžić, (2017). Their performance, development of sport organizations, in such situations, is conditioned by the education of managers (economic and social aspects) and their innovative knowledge (Mašala, A., Rađo, I. and Talović, M. (2013). Pandemic COVID-19 caused significant disturbance in sport industry and raised an issue whether football industry is based on sustainable business model. Sport competitions, during COVID-19, were continued without fans, which was

great challenge for the clubs in financial and in health aspect of players. Apart from decrease of incomes, which came from tickets, to the great amount, there were additional costs for sport organizations, such as testing competitors and the staff before every match.

Since the coach and group of people, who make decisions for development of the organization and achieving high sport values, are the most important resources of sport management (Ramadanović, M., Talović, M., Manić, G., Mašala, A. and Jelešković, (2010), pandemic became great problem. It was very difficult period for sport organizations because athletes stopped competing and trained without

socialization (friends and socializing). Competitors were forced to train by themselves.

International Monetary Fund predicted that global economy will reduce in 3% in 2020, which is worse than during financial crisis in 2008/2009. Having in mind these statements, almost every crisis management and sport crisis management, as well, needs to have pre-defined “protocols” for different states of natural disasters (Tomić, M. (2001). Although most of sport events were stopped worldwide, due to virus, Dana White, UFC president, insisted on organizing martial arts competitions, were Ultimate Fight Championship experiences expansion, in terms of watching matches on live TV (Bogdan, A. 2020). Specific thing for UFC is that it doesn't reveal financial side of their competitions and organizing events without viewers. (Meyer, M. J., Molle, A., Judkins, B. N., & Bowman, P. (2021).

Still the aim of this paper, based on obtained research results, was to present success of sport manages in international sport football clubs of league “five” (Spanish, English, French, Italian and German league) and Ultimate Fight Championship and their clubs/teams, Football clubs F.C. Barcelona, F.C. Manchester United, AC Milan, F.C. Bayern Munchen and F.C. Borussia Dortmund and UFC teams: Straight Blast Gym Ireland, American Kickbox Academy (AKA), Xtreme Couture Mixed Martial Arts, American Top-level Team (ATT) during pandemic.

## Methods

This paper is conceptualized as review paper, based on methodology of Prism. Browsing web sites with corresponding data base were: Google Scholar, PubMed. Key words: effects of application of management, pandemic COVID-19, crisis management, organizing, matches sport, UFC, La League, league of five, teams, matches, sport managements, international clubs.

Four criteria of Prism methodology, in domain of review papers, were used: 1 all sources of data (magazines, published papers etc) in English; 2. Period of organization of port competitions and football matches during the pandemic of COVID-19; 3. Evident differences, which occurred during pandemic COVID-19; 4. Published papers are focused on business and organizational form.

Method of gathering data was conditioned by analysis of content of obtained results. Sample subjects were clubs and federations of international levels of competition. Time frame of the study was transversal and maintains intersection of state for certain period.

## Results

Scheme 1 displays analysis of results, used in 30 papers. All paper fulfilled criteria for selection.

Scheme 1. Selection of papers according to PRISMA

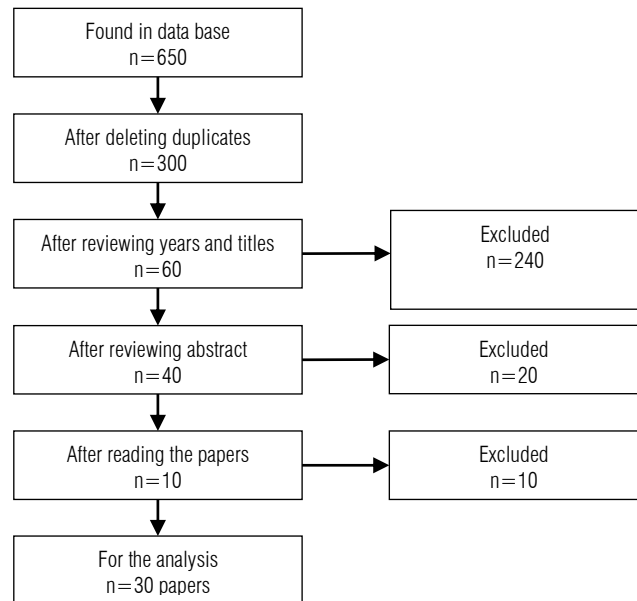


Table 1: Preview of papers with aims and conclusions- football

N	Authors	Aim	Conclusion
1	Reade, J. J., & Singleton, C.	This study studies attendance of audience at football stadium in elite European football, in order to suggest how people reacted at the beginning of COVID-19, how the organization was and what was happening during the pandemic. This gives an insight into how professional sport overcomes social blockage and competitions, which happen behind closed doors.	Negative effects on attendance at football stadium had confirmed COVID cases and death cases in Italy, England and Germany. There was no response on attendance in the early stages of pandemic in Spain and France
2	Weimar, D., Holthoff, L. C., & Biscaia, R.	Effects of attracting attention from smaller leagues to bigger ones were in discussion. However, causal empirical evidence of such interception of attention does not exist and suspension of sport leagues during the quarantine of COVID-19 gives perfect context of examining and ways of managing the organization, during pandemic, as well. The purpose of this study was to examine whether the interest of fans towards smaller leagues suffers from attendance of bigger leagues.	Results indicate increase of attention of social media (at all channels of social media) for league of five and their clubs after the quarantine worldwide. After re-activation of other leagues, rate of increase was slowed down onto the level as it was before COVID.
3	Hammerschmidt, J., Durst, S., Kraus, S., & Puumalainen, K	Actions, which were initiated by government, in order to minimize contacts among people affected professional football clubs in season 2019/2020. Considering the role of football in Europe, football clubs gained great attention of the public and political scene, during the crisis of pandemic of COVID-19.	This study contributes, theoretically and empirically, to the literature of business behaviour and crisis management of elite sport organization and illustrates holistic map of thick, high solidarity network of participants.
4	Gouveia, C., & Pereira, R.	The purpose of this paper is to study the way in which professional football is financially exposed and vulnerable towards main sponsors, which wants to express the power and the influence. The second thing is to examine all asymmetric relations of power emitters that use strategies of owning power, more than acting as a business partners.	This paper offers theoretic review on how leagues of five prepare for return to competitions, after suspension and mandatory lock-down, and safety measures as response to pandemic of Corona virus. Although paper is descriptive and theoretical, our discussion relies on documentary analysis of media/journal reports and academic papers.
5	Ratten, V., da Silva Braga, V. L., & da Encarnação Marques, C. S.	Recently, sport industry needed to be re-innovated, due to pandemic. Therefore, the aim of this paper was to understand how it affects the dynamics of business eco-system. This means focusing on possibilities of creating common values, which is necessary at times of crisis, through creating business opportunities. Data are collected by semi-structural interviews of sport managers within sport business eco-system, during crisis of COVID-19. This enabled obtaining detailed data on how sport managers reacted on changes based on changed contextual conditions.	The paper offers ways to understand unique nature of sport industry and complex nature of sport entrepreneurial eco-systems at times of crisis. Therefore, results give an insight of how sport industry responded to pandemic of COVID-19, through existence of entrepreneurial eco-systems. This indicates that, during the crisis, sport industry can use their unique entrepreneurial eco-system, in order to stimulate proactive collaboration, which leads to common values.
6	Grix, J., Brannagan, P. M., Grimes, H., & Neville, R	The aim of this paper is to analyse influence of COVID-19, on three fields of sport: 1 <sup>st</sup> : Discussion on nature of elite sport, which is played without viewers, which means that necessary factor of "good feeling" is related to its viewing and monitoring; 2 <sup>nd</sup> : Observation of influence of COVID on offering sports in poor areas, relying on the study of the case Oldham, during the pandemic. At the end, serious economic and social influence on massive sport is analysed, including contribution of massive and elite sport.	Encourages interest of how COVID-19 changed sport in elite and basic level and how pandemic lead different outcomes for people from different socio-economic backgrounds. Comment evaluates long-term consequences of pandemic onto sport.
7	Mohr, M., Nassis, G. P., Brito, J., Randers, M. B., Castagna, C., Parnell, D., & Krustup, P.	Pandemic of COVID-19 has dramatically changed conditions for competing football, worldwide. Several competitions and leagues were cancelled or delayed. Players were forced, at the beginning, to train in small groups, with strict limited contact, and return to competing league can happen after several weeks of normal preparations of team training. These special conditions will probably affect football results and the risk of injuries in the upcoming competitions. Therefore, clubs, coach and medical staff and players prioritize condition and performances, which can easily create "catch 22".	This paper presents reviews on conditional training, physical condition and recovery, during these unusual times, and how elite footballers can return to competing pitch, well prepared for after-crisis football ventures, worldwide. Due to multiple physiological demands in elite football, of long recovery after the match and upcoming reality with many matches in short time period, elite footballers, managers and clubs can face challenges related to return to the game, in current conditions.
8	Quansah, T., Frick, B., Lang, M., & Maguire, K.	Pandemic of COVID-19 caused disturbance in sport industry and raised question whether football industry was based on sustainable business model. Using data from English league (RPL), regression model is developed for achieving two aims. The first one is to examine relation between two different sources of incomes (TV incomes, incomes from matches and commercial incomes) and main initiators of expenses of professional football clubs (salaries and transfer costs). The second one is prediction of possible influence of great decrease of the market, such as pandemic of COVID on EPL.	Results show that TC incomes are more important source of incomes for salaries of players and market values, which is followed by incomes of matches and commercial incomes. It is predicted that salaries of players, market values and transfer costs will be reduced in the following EPL season 2020/2021. Size of reduce depends on scenery of Corona virus and moves from -20,4% do -9,5%, for salaries of players and -26,7% do -12,4% and market values of players. Our study examines relative influence of three main incomes of EPL on growth of incomes of players, market values and net costs of transfers in the last three decades. This study contributes to understanding expected influence of pandemic on EPL.

9	Dergaa, I., Varma, A., Tabben, M., Malik, R. A., Sheik, S., Vedaalam, S., ... & Chamari, K.	Therefore, strategy is needed, in pandemic of COVID-19, for return to sport events, in order to open the path towards new normal. We overviewed directions and policies applied in organization of football finals Amir Cup Qatar, which hosted around 20 000 football fans. Authors estimated conditions of public information in official websites of organizations involved, and point to the importance of and used of COVID-19 Rapid Antigen Assay-Kit as a tool for screening sport spectators and importance of rigid path of spectators, including their precise traceability, thanks to specific mobile phone application.	Despite of rise of COVID-19, worldwide, great football event with around 20 000 viewers at the same football stadium, was held under strictly controlled prevention measures. These measures show that it is possible to organize great football match in the open, with the presence of several thousand football fans. This review paper is call for an action to the organizers of these kinds of events, where health condition of fans can be monitored, in order to provide real data, for scientific community, of rates of infection after the event. Therefore, use of procedures like the ones mentioned in this review paper, as potential model of organizing great sport events with viewers during the COVID-19, need to be taken into consideration.
10	Ramchandani, G., & Millar, R.	This study examines whether there is quantified change in size of host advantage (HA) when football matches are played behind closed doors. Study includes highest divisions of football league in England, Germany, Italy, Portugal, and Spain. Due to limitations of COVID-19, 500 matches without audience were played, in these leagues during the season of 2019/2020.	Inter-season analysis was conducted, where seasons of HA 2019/2020 and season 2018/2019 (when it was crowded). Also, analysis within season of HA between matches played with or without audience during season of 2019/2020, was conducted. Italian series A and German Bundesliga were the only ones with decline of inter-season of HA (between 2018/2019 and 2019/2020) or within season of HA (between matches with or without audience in 2019/2020) was found. All in all, there is not enough evidence to generalize absence of crowd to influence on HA in football.
11	Limba, F. B., Rijoly, J. C. D., & Tarangi, M. I.	The aim of the paper is to check whether there is an influence of pandemic on stock values of several European clubs such as: Ajax Amsterdam, Borussia Dortmund, Juventus F.C. and Manchester United.	Results showed that stocks, which were the subject of the study (Ajax, Borussia Dortmund, Juventus and Manchester United) showed big response to the bad news (increase of death cases due to COVID) results of survey with 361 answers calculated by coaches and different staff members from 26 different countries, which includes participation of 45000 athletes from all over the world. The aim was to find out more about activities of the teams during this suspension. Finally, review paper gives recommendations based on responses of participants on how to help teams if some other epidemic occurs and forces another massive lock-down, considering safe return to the sport competitions.
12	Peña, J., Altarriba-Bartés, A., Vicens-Bordas, J., Gil-Puga, B., Piniés-Penadés, G., Alba-Jiménez, C., ... & Casals, M.	This review paper presents overview of literature, which reveals virus dangers on athletes, reports on effects of pandemics on competing sport and gives references, based on evidence, in order to avoid consequences of training of athletes in lock-down.	
13	Moreno-Pérez, V., Patricios, J., Amigo de Bonet, N., Buil, M. Á., Díaz de Alda, J., Fernández-Posada, A., ... & Del Coso, J.	The aim of this study was to determine difference in frequency of injuries of players La League between the period of lock-down and period of isolation.	Results of 277 players, in total, from 11 teams, which compete i La League monitored during the season 2019/2020. Incidence of injuries in 27 matches played before isolation compared to the last 11 matches after the competition. In comparison to the period before suspension, continuance of championship hasn't significantly influenced on injuries (4.2 against 5.4 injuries in 1000h of exposure, $p=0.338$ ). Incidence of injuries before suspension and after continece of competition was similar for the muscles (2,6 against 3,4 injuries at 1000 h exposure, $p = 0,152$ ) and ligament injuries (0,8 against 0,4 injuries at 1000 h exposure, $p = 02$ ). Proceeding of competition also hasn't changed distribution of injuries towards location of the body ( $p = 0,948$ ), type of injury ( $p = 0,766$ ), manner of beginning ( $p = 0,614$ ), weight ( $p = 0,065$ ) or player's position ( $p = 0,295$ ). In short, an average frequency of injuries in players of La League was similar before and after the isolation. Condition strategy that was acquired by the clubs, before continuance of La League and adjustment to some rules in the game helped avoidance of injuries after the isolation.
14	Rico-González, M., Pino-Ortega, J., & Ardigò, L. P.	The aim of this paper was to review recommendations of the best practice for the return to playing amateur football after lock-down.	Correlation between high-intensity loadings and immunoglobulin A, it is necessary to apply strategies of recovery, nutrition and lifestyle. Moreover, since immunosuppression is connected to busy schedule ( $< 72$ h between matches), football federations need to avoid such situations.
15	Ferraresi, M., & Gucciardi, G.	The aim of this paper is to compare differences between number of scores and teams, which competed in guest matches, before COVID-19, when fans could be present at the games with the same difference after the isolation, when all matches were played behind the closed doors.	The conclusion is the result of home team is cut in half, when stadiums are empty, and this effect is more evident for the teams, where attendance of the fans was high and the teams which don't have international experience. Taken together these results can play a key role in designing future work place as "smart work"- organizational model, in which perception- observed is less evident-becomes more important.

Table 2: Review papers with aims and conclusions- UFC

N	Authors	Aim	Conclusion
1	Butryn, T. M., & Masucci, M. A.	Despite this significant business failure and background of fiery and defiant interviews in the media, White and UFC immediately started to play the way to host the event, before than later, promising that they will lead sport organizations and United of State towards opening again.	After he had teased introduction of „Island of Fight „, where UFC would probably be the host of the event in uninhibited massive regulations, promotion managed to make a deal on hosting of moved event without fans in the state with interesting governor at VyStar Veterans Memorial Arena in Jacksonville, FL, 9 <sup>th</sup> 2020.
2	Singleton, T., & Green, K.	The aim of this is built of cognitive subjective term, which UFC use in order to place as lonely organization, fierce enough to “defeat” COVID, through continuance of events live and overcoming the obstacles, which are set by regulative and media criticism. Finally, we find three dominant narratives, which are actively set of this identity, in their brand content: „Sport needs to continue “, “Unstoppable force “and „The world has gone mad “.	We conclude that UFC brand confirms weak social and political position, which young sport takes by advertising company of combat sports as different from other mainstream sport leagues, through repeated celebration of Day of White (president of UFC) as heroic figure, rejecting the caution of pandemic and presenting mainstream media as a jealous enemy.
3	DeRosa, J.	This study defines influence of the pandemic on sport public relations on professional level. Determination of on how pandemic of COVID-19 applied public relations in sport challenging industry to think more creatively and the way it organizations could affect sport community. This study examines how publicists and their organizations reacted on suspension of events during COVID-19, return to the game without fans in order to change future of industry.	Analysis of sport public relations in this period gives an insight on success and failures of sport publicists, while they were trying to adjust to the industry, which returns from the crisis.
4	Lorén, G., & Steifo, T.	The aim of this paper is to observe what solutions of the company were implemented in order to continue their work and what characterizes these solutions. Quality method is applied in this paper, in order to respond to the purpose of study. Our cases will be analysed based on Saraswathi five principles for effectuation. Companies and people selected for this thesis are: UFC, NBA, English national opera, Berliner Ensemble, Fringe Festival, SOCAN, Ikea, Hotel i restaurant, Kjell & Company and Circle K, Kevin Hart, David Dobrik, Göteborgs Film festival and a Drive-in-cinema.	The thing that can be seen in companies, which are presented is to invest with means, which they can afford to lose, regardless of their size, traffic, abilities etc. so organizations demanded small investments.
5	Hagemann, G., Hu, C., Al Hassani, N., & Kahil, N.	The aim of this paper was the BJSM blog of Nitin K Sethi, published in April, where he asked the question “should combat sports, during COVID, perform behind the closed doors?”	The conclusion of the paper is whether sport events can be considered with the right preparation and acceptance of previous practices. In this context, UFC is selected to hold series of fights at Yasu Island, Abu Dhabi, where the host was Ministry of Culture and Tourism, closely connected to Ministry of Health, in period from 1-31 July 2020.
6	Ruihley, B. J., & Li, B.	The aim of the paper: many celebrities, athletes, coaches and sport organizations were forced to use alternative forms of media or changed messages for communication, during this unusual period. Many comments, in this special edition focus on sport media and communication, which cover different topics, including inherited media (TV and papers), digital media platforms (Twitter, Instagram TikTok) representation of athletes, crisis communication, false news and media framing. Buehler evaluates program strategy, which was accepted by sport television networks, in order to solve big hole, which remained after the loss of sport events live.	Ultimate Fighting Championship (UFC) created great amount of content, while many sport organizations were pausing. Butryn, Masucci and Johnson explore strategy of Dan White in promoting of how UFC show needs to be performed.
7	Goldman, M. M., & Hedlund, D. P.	As opposed to broadcasting of sports, which played online in previous examples, live broadcasting of new physical event during the COVID period included UFC. Limitations on travelling and public gathering in New York forced UFC 249 event, firstly dated at 18 April, to move to location in California. After reported political pressure, event was delayed indefinitely. At the end of April, UFC 249 found new home in Florida, after the governor of the state marked athletes and entertainers as necessary (Brookhouse, 2020).	UFC 249 was a host on 9 <sup>th</sup> May 2020., with the presence of only main staff, significant measures related to COVID and without fans, which made UFC first big sport organization, which re-started physical operations in States. In the statement of ESPN: „Sport plays an important role in peoples’ lives and can bring moments of escape in challenging times. We’re looking forward to joining UFC fans” (Okamoto, 2020, paragraph 8). The main event on 9 May 2020 in average had 1.4666 million viewers, with at least 500 000 viewers via ESPN + (Ourand 2020)
8	Eaglesham, j., & Grind, K.	Pandemic of Corona virus has forced sport leagues worldwide to lock-down, but the company behind UFC promised to maintain fights for cable and pay-per view audience. President of UFC Holding Inc Dan White, a friend of president Trump, said, in the middle of March, that company will start events despite outbreak, but it didn’t. Since then, he changed his mind. Decision made market of debt happy, where prices for more than 2 billion of dollars debt of UFC, and only recently they have recovered.	In order to keep UFC fights. Leading companies made a contract with ESPN worth 1.5 billion dollars and 2.3 billion dollars of debt, UFC has had in the last few years. Contract with ESPN unit Walt Disney Co. gives network exclusive rights on broadcasting of UFC fights and additional rights on pay-per-view fights. UFC got into a debt when it was bought by companies Endeavour PLC and private company KKR & Co. And Silver Lake. Spokesperson of UFC refused to comment.

9	Fomin, O., Nedurueva, T., Bobrovskiy, E., & Perkova, E..	UFC does not reveal financial side of their events, therefore the loss of failed fight between Nurmagomed and Ferguson and holding matches without audience and outside United States, is not possible to assess.	Effects of Corona virus will not be shocking for business and population of those countries where state supports business and population and, in the ones, where there is no government support, but sport industry will suffer financial loss due to inability of realization of their marketing potential.
10	Meyer, M. J., Molle, A., Judkins, B. N., & Bowman, P.	The aim of the paper: enormous pay-per-view organization, which includes these martial arts, were rare, which have decided to proceed the competition and ensured their visibility, such as: UFC, Bellator, Top Rank, PBC, WWE, AEW and Golden Boy. While these selling points had lot less events, there are evidence which indicate that they expended their audience to some who had limited interest for martial arts before the pandemic.	This follows increased interest for online resources, especially YouTube, which is interpreted as a follow up of Zoom classes. Of course, video streams were important surrogate or addition to regular group trainings. Relevance of online and offline resources have exceeded this. Many participants used their additional time at home, in order to improve their knowledge on martial arts and deepen their inter-style understanding, except for regular online class.
11	Sánchez-García, R.	This paper represents one application and further development of thesis Quest for Excitement Norberta Eliasa and Eric Dunning (2008) through analysis of recent phenomenon of Bare-Knuckle Fighting Championship (BKFC) in USA.	Method of the study is based on quality analysis of data of different digital sources, which refer to bare joints, starting with news reports, interviews with promoters and fighters, posts on social networks, videos etc. The main finding is that BKFC shows certain features (for e.g. gloves, blood) which represent "sensation of violence" evidently increases danger of practice, although it doesn't increase the real damage (for e.g. concussion, death.). BKFC uses other strategies, which enhance control, safety and respectability as balance for achieving tension within American level of sensitivity on violence in professional combat sports.
12	Bueno, J. C., Faro, H., Lenetsky, S., Gonçalves, A. F., Dias, S. B., Ribeiro, A. L., ... & Claudino, J. G.	This review aim was to analyse findings in literature regarding mixed martial arts through the research system overview and to display state of art from multiple perspectives.	MMA athletes were 17,2% amateurs, 73,8% professionals and 9% didn't apply. Scientific literature related to MMA states that injuries (n=28), weight loss (n=21), technical and tactical analysis (n=23), physical preparedness (n=8), physiological reactions and features of training (n=13), psycho-biological parameters (n=12) and intervention applied on MMA athletes (n=7). Therefore, this research systematic overview presents seven wide abstracts of each aspect of effect, which is important for this population of athletes.
13	Church, C. M.	Athletes of mixed martial arts are insufficiently present in the studies and aren't highly present in psychology of sport and performances. Studies the purpose of this quality of research descriptive studies of the case with one individual was to develop profile of an athlete, simultaneous champion in double weight category or the champion, in order to understand this kind of unique athlete. This type of study was not conducted earlier, and presents limited understanding of this class of athletes.	This study resulted with basic understanding of quality of athletes and gave references for practical use in sports. Psychology professionals, organization of mixed martial arts, athletes and potential future of research. Profile of an athlete consisted of more intern motivational features and suggestions on how to this understanding can be useful to others in combat sports and more.
14	Vannicola, N. Early.	UFC super star and ex-champion Conor McGregor recently announced that he has agreed to the offer of UFC on return match with Dustin Poirier, whom McGregor defeated in December 2014.	McGregor fighting against meteoric growth of popularity of promotion in the last decade was evidently absent from octagon in the last few years. Since defeat in championship in light category by Khabib Nurmagomedov in October 2018, McGregor fought only once. Despite all of this; McGregor stayed unshakable in his desire to return to octagon.
15	Saldic, S.	The purpose of this thesis is to examine opportunities and challenges to which Norwegian athletes are faced with in their career as professional athletes. Using feminist perspective, experiences and perceptions of six female athletes, who competed on the highest level, analysing levels of their sport. Perspective of role of woman in media, their possibilities of sponsorship and strategies of personal branding, which occurred through semi-structural interview and analysed combination of theme analysis, literature overviews and theoretic basics.	Lately, women worldwide, are becoming more acknowledged due to their accomplishments. Rhonda Rousey becomes first fighter who signed contract for UFC and leads UFC events UFC event of 2012; Ada Hegerberg is the first woman, who was awarded for the Golden ball 2018 and Meghan Rapino, was declared an athlete of Sport Illustrated in 2019. And other acknowledgments (Gross, 2012; Aarons, 2018; Elassar, 2019). Naomi Osaka became the most paid athlete in 2020, surpassing domination of Selena Williams (Public Abonnement of Forbes, 2020)

*Papers were published in different science magazines, which are placed in index data base. Analysis of tables 5 and 6 it is evident that papers covered different aspects and had different aims and conclusions, but are equally important for the essence of the paper.*

## Discussion

Based on the content of selected studies and their adequate analysis, a discussion is created with the emphasize two segments: 1. Effects of applied sport management on organizing league of "five" (Spanish, English, French, Italian and German league). Football clubs F.C. Barcelona, F. C. Manchester United, AC Milan, F.C. Bayern Munchen and C. Borussia Dortmund during pandemic. 2. Effects of applying sport management on organizing sport competition f UFC teams: Straight Blast Gym Ireland, American Kick box Academy (AKA), Xtreme Couture Mixed Martial Arts, American Top Team (ATT) during pandemic COVID-19.

Analysis of papers, it is determined that average number of viewers by leagues, hygienic and health measures for return of viewers and area-organizational measures Mohr, M., Nassis, G. P., Brito, J., Randers, M. B., Castagna, C., Parnell, D., & Krustup, P.). C+According to papers, which are directed to sectors of financial services, we concluded that there are some changes in incomes, which resulted in changes in costs. Clubs can spend only what they earn, because they are subjected to budget limitation (Quansah, T., Frick, B., Lang, M., & Maguire, K.).

Analysis of results show that attendance of viewers from one season to another is declining. We think that season 2018/2019 was incredible because every match was as if the finals of Champion's League were played. Season 2019/2020 is surprisingly good, considering that virus has appeared. It is evident that difference between seasons 2018/2019 and season 2020/2021 in English Premier League almost 37000 viewers. We can say that this is great financial and media loss.

Analysis of results, football clubs of English Premier League experienced strong positive growth of incomes from broadcasting and commercial incomes and conservative growth of incomes from matches. Model predicts reduce of 18.5 million pounds (the best case); 25.9 million pounds (medium) and 37,1 million pounds (the worst case). It is expected that TV incomes will be decrease for 7,8 million pounds in all three scenarios, while commercial incomes could decrease between 8 million pounds (best case) and 32,1 million of pounds (the worst case) (Quansah, T., Frick, B., Lang, M., & Maguire, K. (2021). Salaries and market values of players experienced positive increase till 2019, while net costs of transfers were relatively stable till 2013 and in 2019 rate of increase occurred. Quansah, T., Frick, B., Lang, M., & Maguire, K. (2021) predicted, in their model, significant decrease of all three variables in terms that market values of players will experience the biggest decrease: -26,7% in the worst case, -17,2% medium and 12,4% in the best case. Net costs of transfers and salaries of players follow similar pattern. Ratio of salaries/incomes oscillates during COVID.19 and that ratio reaches minimum of 0.46 in

season 1994/1995 and maximum of 0, 69 in season 2012/2013. Quansah, T., Frick, B., Lang, M., & Maguire, K. (2021) suggest that total income of clubs will decrease more than salaries of players due to pandemic in all three scenarios.

Situation in France is changeable as the audience, who attended stadiums. It is evident that season before Corona virus and season after were very similar i.e. there weren't many changes except in season 2018/2019, where 19 matches were played, and season 2020/2021, where 14 matches were played. F.C. Paris Saint Germain (Reade, Singleton, 2021) is one of the most influenced clubs who experienced the great loss.

We witnessed that pandemic of COVID-19 has caught Italy to the greatest amount; therefore, the attendance of viewers was not expected at all. Attendance of audience on stadiums was not high, although the popular clubs played. In table 4 we see the average of viewers is proportional to epidemic situation and the biggest role has AC Milan (Reade, Singleton, 2021).

In Spain, where viewers understood the seriousness of situation and they stayed at home, not exposing themselves to the risk. La League is among the least attended leagues in "league of five" and with or without pandemic, where in 19 matches in season, the biggest number of viewers was around 27 000 viewers and the smallest was 7 viewers (Reade, Singleton, 2021).

Table display of played matches without audience in season 2019/2020. Differences in seasons, financial sector and statistics of played matches, which are expressed in percentages, were displayed in table. Overall, almost 29% of matches in five leagues were played behind closed doors, in this season. This statistic varied from 24% in English Premier League to 34% in Italian League of Series A. All matches were held at original place of certain home team according to schedule before COVID-19 measures.

A lot of papers concluded that clubs generate income from four main sources, and those are incomes of: league, broadcasting, advertising, and tickets. Due to measures of pandemic, which forced matches to be played behind the closed doors, many clubs were subjected to certain financial burden due to loss of incomes. In addition, athletes exposed to certain level of detraining as a consequence of insufficient and inadequate stimulants of training, which can result with reduced performances and increased risk of injuries. Therefore, it is necessary to ensure return of threat sport events with structural level of re-opening in phases based on structural policy of screening of viewers. That would ensure for sport events to take place as before COVID and in safe environment, respectively, hopefully without infection of Covid-19 after the event (Mohr, M., Nassis, G. P., Brito, J.,

Randers, M. B., Castagna, C., Parnell, D., & Krstrup, P., Quansah, T., Frick, B., Lang, M., & Maguire, K., Dergaa, I., Varma, A., Tabben, M., Malik, R. A., Sheik, S., Vedasalam, S., ... & Chamari, K.).

Society of spectacle uses capitalism because it sets distance between people, especially fans in that process, creates feeling of disconnection between us. In this case, fans are free to cheer, while speakers, doctors, cameramen, and UFC fighters work in potential unsafe environment.

At the end, almost two-month odyssey for UFC 249 has ended but with unaccepted (form media) success, with assessments of Sport Business Journal, which indicate that 700 000 purchases of PPV on ESPN+ (Impey, 2020) which is remarkable number, considering the situation, and surreal vision of empty arena in combination with almost gruesome lack of any noise. Dan White waited opportunity for more than 20 years, to present UFC as mainstream sport. Based on these papers, we can conclude that if you are persistent enough, innovative, and resourceful you can respond to emerging crisis, in the right way. This example can be applied on athletes, fans, workers to return to their jobs during and after pandemic of COVID-19.

According to authors (Goldman, M. M., & Hedlund, D. P.) the main event of UFC is held on 9 May 2020 was watched by 1.466 million of viewers with at least 500.000 viewers over ESPN+. Organizations of sport competitions were held, regardless of crisis situation. As opposed to other sport leagues, UFC needs only few people to hold a fight: two fighters, the coaches and filming crew. Ethos UFC all-goes means that fight can be held almost everywhere (Eaglesham, J., & Grind, K.).

In conclusion, huge pay-per-view organizations of martial arts were rare which decided to continue competition and therefore ensure their visibility. Interestingly, there are evidence which indicate that they expend their audience to the ones who had limited interest for martial art before pandemic. UFC doesn't reveal financial side of these events and holding matches without viewers cannot be estimated, as well.

## Conclusion

This paper indicates importance of sport and crisis management in handling certain sport manifestations/competitions and organizations during pandemic of COVID-19. Based on processed literature and analysis of scientific-research papers, we can conclude that, in order to protect health of athletes on international and regional level. Basic preventive measures include minimal human contacts and practicing personal hygiene. Risky behaviours in the field, in order to reduce infection, because close contact with others is inevitable in contact sports, need to be avoided. Decisions of crisis management prevented

spreading disease of respiratory system of COVID-19. These measures of prevention enabled holding sport competitions and if they weren't adopted, the future of sport, fun and socializing would be questionable.

This review paper show differences and similarities in seasons during and after pandemic of COVID-19. Differences in financial and organizational sector and ways of organizing and resourcefulness of sport managers were presented. One of the biggest reflections of football was in finance, which were 60% of incomes from: tickets, sales of advertising things etc. This cannot be established for UFC because UFC does not reveal it financial side of its events and holding matches without viewers. One of the reasons, which encouraged UFC is an echo (sound) of hits in the background from the opponent, which gave innovative and different view on Ultimate Fight.

What intrigues the world most is that president of UFC and his sport managers, regardless of crisis situation, didn't give up organizing of the world competition. They presented their innovative ideas to the world without trace of fear, with the aim and hope that it will work and they succeeded as it is shown in results of this MA paper. Therefore, they responded as crisis management and gave an example to other how you can reach the top, even with pandemic of COVID-19.

In the end, if the management is defined as various ways of managing, the sense of innovations and even Internet is evident. It's easier to manage the world and crisis situations around, when information is new and within one's reach and constantly complemented and renewed. This is equally important in every segment of managing. Pandemic of COVID-19 had immense on sequences in sport, not only in economic but logistical and operative purposes, as well.

## References

1. Ramadanović, M., Talović, M., Manić, G., Mašala, A. i Jelešković, (2010). Menadžment u sportu-Upravljanje promjenama, Fakultet sporta i tjelesnog odgoja, Sarajevo.
2. Tomić, M. (2001). Menadžment u sportu, II izdanje, Beograd, IP "ASTIBO "
3. Bogdan, A. (2020). Koronavirus i mentalno zdravlje. Psihološki aspekti, savjeti i preporuke.
4. Hagemann, G., Hu, C., Al Hassani, N., & Kahil, N. (2021). Infographic. Successful hosting of a mass sporting event during the COVID-19 pandemic. *British journal of sports medicine*, 55(10), 570-571.
5. Butryn, T. M., & Masucci, M. A. (2020). The Show Must Go On: The Strategy and Spectacle of Dana White's Efforts to Promote UFC 249 During the Coronavirus Pandemic. *International Journal of Sport Communication*, 13(3), 381-390.
6. Meyer, M. J., Molle, A., Judkins, B. N., & Bowman, P. (2021). *MARTIAL ARTS. Studies*, 11, 7-31.
7. Singleton, T., & Green, K. (2021). A Lot of People Did Not Want This to Happen. *Journal of Emerging Sport Studies*, 5.



8. Reade, J. J., & Singleton, C. (2021). Demand for public events in the COVID-19 pandemic: a case study of European football. *European Sport Management Quarterly*, 21(3), 391-405.
9. Weimar, D., Holthoff, L. C., & Biscaia, R. (2021). A bright spot for a small league: social media performance in a football league without a COVID-19 lockdown. *European Sport Management Quarterly*, 21(3), 421-442.
10. Hammerschmidt, J., Durst, S., Kraus, S., & Puumalainen, K. (2021). Professional football clubs and empirical evidence from the COVID-19 crisis: Time for sport entrepreneurship?. *Technological Forecasting and Social Change*, 165, 120572.
11. Gouveia, C., & Pereira, R. (2021). Professional football in Portugal: preparing to resume after the COVID-19 pandemic. *Soccer & Society*, 22(1-2), 103-114.
12. Ratten, V., da Silva Braga, V. L., & da Encarnação Marques, C. S. (2021). Sport entrepreneurship and value co-creation in times of crisis: The covid-19 pandemic. *Journal of Business Research*, 133, 265-274.
13. 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.
14. Quansah, T., Frick, B., Lang, M., & Maguire, K. (2021). The Importance of Club Revenues for Player Salaries and Transfer Expenses—How Does the Coronavirus Outbreak (COVID-19) Impact the English Premier League?. *Sustainability*, 13(9), 5154.
15. Dergaa, I., Varma, A., Tabben, M., Malik, R. A., Sheik, S., Vedralam, S., ... & Chamari, K. (2021). Organising football matches with spectators during the COVID-19 pandemic: What can we learn from the Amir Cup Football Final of Qatar 2020? A call for action. *Biology of Sport*, 38(4), 677.
16. Ramchandani, G., & Millar, R. (2021). Investigating the "Twelfth Man" Effect in Five European Domestic Football Leagues: A COVID-19 Induced Natural Experiment. *Journal of Global Sport Management*, 1-15.
17. Mohr, M., Nassis, G. P., Brito, J., Randers, M. B., Castagna, C., Parnell, D., & Krustup, P. (2022). Return to elite football after the COVID-19 lockdown. *Managing Sport and Leisure*, 27(1-2), 172-180.
18. Lorén, G., & Steifo, T. (2022). Organisationers innovativa lösningar och samarbeten för att fortsätta kunna bedriva sina verksamheter under Covid-19-pandemin. En kvalitativ studie.
19. Ruihley, B. J., & Li, B. (2020). Sport and the coronavirus crisis special issue: an introduction. *International Journal of Sport Communication*, 13(3), 289-293.
20. Goldman, M. M., & Hedlund, D. P. (2020). Rebooting content: Broadcasting sport and esports to homes during COVID-19. *International Journal of Sport Communication*, 13(3), 370-380.
21. EAGLESHAM, J., & GRIND, K. (2020). Airbnb to Pay Over 10% Interest for \$1 Billion Financing. *WALL STREET JOURNAL*, 3.
22. DeRosa, J. (2021). The COVID-19 Pandemic's Impact On Sports Public Relations.
23. Limba, F. B., Rijoly, J. C. D., & Tarangi, M. I. (2020). Black swan global market: Analysis of the effect of the COVID-19
24. death rate on the volatility of European football club stock prices (Case Study of Juventus FC, Manchester United, Ajax Amsterdam and Borussia Dortmund). *JMBA UNSRAT (Jurnal Ilmiah Manajemen Bisnis dan Inovasi Universitas Sam Ratulangi)*, 7(3).
25. Peña, J., Altarriba-Bartés, A., Vicens-Bordas, J., Gil-Puga, B., Piniés-Penadés, G., Alba-Jiménez, C., ... & Casals, M. (2021). Sports in time of COVID-19: Impact of the lockdown on team activity. *Apunts Sports Medicine*, 56(209), 100340.
26. Rico-González, M., Pino-Ortega, J., & Ardigò, L. P. (2021). Playing Non-Professional Football in COVID-19 Time: A Narrative Review of Recommendations, Considerations, and Best Practices. *International journal of environmental research and public health*, 18(2), 568.
27. Ferraresi, M., & Gucciardi, G. (2020). *Team performance and audience: experimental evidence from the football sector*. Società italiana di economia pubblica.
28. Moreno-Pérez, V., Patricios, J., Amigo de Bonet, N., Buil, M. Á., Díaz de Alda, J., Fernández-Posada, A., ... & Del Coso, J. (2022). LaLiga lockdown: conditioning strategy and adaptation to in-game regulations during COVID-19 pandemic prevented an increase in injury incidence. *International journal of environmental research and public health*, 19(5), 2920.
29. Fomin, O., Nedurueva, T., Bobrovskiy, E., & Perkova, E. (2020). The impact of the sports industry on the state of the food market in a pandemic. *Revista Inclusiones*, 367-378.
30. Sánchez-García, R. (2020). The spectacularization of violence in contemporary US bare-knuckle fighting. *Sport in Society*, 23(10), 1645-1658.
31. Bueno, J. C., Faro, H., Lenetsky, S., Gonçalves, A. F., Dias, S. B., Ribeiro, A. L., ... & Claudino, J. G. (2022). Exploratory Systematic Review of Mixed Martial Arts: An Overview of Performance of Importance Factors with over 20,000 Athletes. *Sports*, 10(6), 80.
32. Church, C. M. (2021). *A Motivational Athlete Profile of a Champ Champ in Mixed Martial Arts (Doctoral dissertation, Ashford University)*.
33. Vannicola, N. Early Voting is on the Rise.
34. Saldic, S. (2020). *Gender Disparity in Sport: Investigating the Perceptions of Elite Female Athletes (Master's thesis, Høgskolen i Molde-Vitenskapelig høgskole i logistikk)*.

*Corresponding author:*

*Almir Mašala*

*Faculty of Sport and Physical Education,*

*University of Sarajevo, BiH Sarajevo*

*e-mail: [almir.masala@fasto.unsa.ba](mailto:almir.masala@fasto.unsa.ba)*

**Submitted:** 15.09.2022.

**Accepted:** 03.10.2022.