The Conundrum of COVID-19 and the Sports Industry: When Saving Lives is More Important than Entertainment

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Abstract

The advent of COVID-19 has thrown the world of sports into disarray. Far and wide, numerous sports codes, leagues, and federations suspended their activities. They had their operational models adapted as a safety precaution to ensure that minimal human life is lost. Social distancing, one of the critical measures in combating COVID-19, is not always practical for both spectators and participants in sports events. In this chapter, I interrogate the impact of COVID-19 on the sports industry. I argue that COVID-19 has exposed the long-standing neoliberal operational model that has been followed by the world of sports as being flawed and in need of a massive change. I argue that, perhaps, COVID-19 was the necessary chaos that the sports industry needed to usher in a 'new paradigm.' The sports industry ought to keep up with new trends, adapt and embrace new strategies and technologies to continue to offer sporting activities when 'live' game participation and attendance are not an option amid large scale pandemics such as COVID-19. I recommend that the lessons learned from challenges imposed by COVID-19 should transform sports into new frontiers never imagined before, in which saving lives are more important than entertainment.

Keywords: Sports, COVID-19, pandemic, virtual sports

1 Introduction

On the 31st of December 2019, the World Health Organisation (WHO) in China received a report about rising reported incidents of many idiopathic viral pneumonia cases in Wuhan City in Hubei province (Zhu *et al.* 2019; WHO

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2020a). Virologists, geneticists, and epidemiologists argue that the virus' outbreak predates the end of December 2019, when WHO was officially informed. Li *et al.* (2020) and Andersen *et al.* (2020) have reported that the most recent common ancestor (MRCA)[1] of SARS-CoV-2 evolved between 22 and 24 November 2019. Furthermore, to date, using a larger data set, Van Dorp *et al.* (2020) have published a confirmatory study that estimates the date interval of COVID-19 outbreak between the 6th of October and the 11th of December. Less than a month later, WHO declared the outbreak of the virus a Public Health Emergency of International Concern (PHEIC) (WHO 2020a). The nomenclature evolved from novel coronavirus (2019-nCoV) to severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), and finally, coronavirus of 2019 (COVID-19). There are over 108 million cases, and 2 396 408 confirmed deaths in 224 countries worldwide (WHO 2020a).

While at first COVID-19 was confined to Hubei province, it quickly found its way to neighbouring Chinese regions. It quickly spread within China, then the neighbouring Asian countries such as the Philippines, Singapore, Thailand, Japan, Korea, Vietnam, central Europe, the United States, and Africa (WHO 2020a; Blocken *et al.* 2020; El Maarouf, Belghazi & El Maarouf 2020). As a global response to an unfolding health crisis, on 10–12 January 2020, WHO published a comprehensive package of documents to serve as guidelines for countries in dealing with COVID-19, which covered several topics about the prevention and the management of the new virus (WHO 2020a). In the absence of a cure or vaccine, WHO (2020a) issued advice for the public on the prevention of the spread of the virus, namely 1) avoiding crowded places; 2) washing hands with an ethanol-based sanitizer or water and soap for at least 20 seconds; 3) maintaining at least a 1.5–2 metre (6 feet) social distance; 4) using a face mask, and 5) and practicing hygiene cough etiquette. Just under three months after the first reported cases of COVID-19, on the 11th of March 2020, WHO became 'deeply concerned by the alarming levels of spread and severity, and by the alarming levels of inaction … assessed that COVID-19 is a pandemic' (WHO 2020a).

The health and safety guidelines issued to the public to control the spread and manage COVID-19 ushered what has become known as the 'new normal'–a new way of living, work, and interactions with other people (Keogh

[1] The most recent individual from which all the organisms of the set are descended.

2020). I agree with Saqr and Wasson (2020), who opines that global pandemics guarantee planetary crises and opportunities to advance planetary wisdom, survival, interconnectedness, collaboration, health promotion, and sustainable ecology. I contend that the concept of calling the current situation the human race finds itself in a new 'normal' might not be the most appropriate term to use as it suggests that pre-COVID-19 conditions were 'normal' and living with COVID-19 in our midst with all the devastation it causes to the innermost fabric that makes us all human is also 'normal.' Therefore, instead of calling this period the 'new normal,' perhaps, we should think of it as the 'new paradigm' (Asonye 2020). I expand on COVID-19 ushering the new paradigm in the sports industry later on in the chapter when I look at how the sports industry needed this 'new paradigm,' a new lens, so to speak, in order go through the much need metamorphosis to remain relevant post- COVID-19 and for future pandemics.

Adhering to WHO's guidelines, many countries suspended many regular activities in people's lives, including businesses, schools, social life, and sports, in an attempt to 'flatten the curve.' The need to reduce the spread of COVID-19 infections led to numerous governments instituting lockdowns, ranging from mild to very severe depending on citizens, cities, and countries (Blocken *et al.* 2020; Ramagole *et al.* 2020). Approximately 20% of the world population is under coronavirus lockdown (Davidson 2020). Social distancing in sports events for both spectators and participants, one of the critical measures in combating COVID-19, is not always practical. Perhaps, it is the opportune moment to provide a brief background on COVID-19 and why social distancing might not be an option for the sports industry.

The most common mode of transmission of COVID-19 is by direct sharing of droplets produced by sneezing, coughing, talking, singing, or merely exhaling that reach the mucosae (mouth and nose) or conjunctiva (eyes) of another person (Blocken *et al.* 2020). The second most common method is indirect or contact route through fomites such as skin cells, hair, clothes, handrails, keyboard buttons, and other objects. Virus transmission is complete after contact with an infected person (Blocken *et al.* 2020). Various authors (Morawska & Cao 2020; Liu *et al.* 2020; Asadi *et al.* 2020) have reported mounting evidence that COVID-19 can also be transmitted by inhalation of microscopic droplets at the short-to-medium range, and the virus can remain in the air for hours. Therefore, the sports industry would become a breeding ground for new cases of COVID-19 as it is likely to accelerate the transmission

of the virus. To this end, numerous sports codes, leagues, and sports federations' worldwide suspended their activities and adapted their operational models. The swift actions were necessary to ensure minimal human interaction customary at sports events leading to unnecessary deaths (Baggish *et al.* 2020). International multi-sports and mega-sports, the Summer and Winter Olympics being the biggest scalps, local and national amateur competitions, world games, world student games, and professional leagues were called off (Blocken *et al.* 2020; Lenzeni *et al.* 2020).

The suspension of various sports codes, competitions, leagues, and sports federations' activities has had an enduring impact on the sports industry. The sports industry needs to find new ways in which to stage sporting events amid pandemics. Sports events require safe conditions that do not compromise the entire sports industry food chain: the athletes/players, owners of the teams, coaches, backroom staff, broadcasters, sponsors, and spectators (Hall 2020; Mann *et al.* 2020). The impact of the sports industry's health restrictions on the lockdown periods is both economic and social. Economically, the inability to stage and attend 'live' games, a source of the primary revenue for the various sports stakeholders, has disastrous economic consequences. Sports teams have not generated revenue from the many other activities associated with hosting live matches with their fans in attendance. I expand on the economic impact of COVID-19 under the sports industry sector revenue-making model section I discuss later on in this chapter.

Socially, COVID-19 has thwarted promoting the social benefits derived from global and regional sporting events (UN 2020). It is a common cause that sports promote social cohesion (Blocken *et al.* 2020). The UN Sustainable Development Goals 2019 Summit declared that sports make a significant contribution to the empowerment of women and young people, individuals, and communities and health, education, and social inclusion objectives (UN 2020; Blocken *et al.* 2020). After all, Nelson Mandela also stated that 'sport has the power to change the world. It has the power to inspire. It has the power to unite people in a way that little else does' (Hughes 2013). Thus, sport is an invaluable tool for fostering communication and building bridges between communities and generations (WHO 2020b). COVID-19 lockdowns and the suspension of sports meant the curtailment of social inclusion objectives and platforms in which people could unite are reduced (Majumdar & Naha 2020; Blocken *et al.* 2020). Sports also enhance the social and emotional excitement of fans (Majumdar & Naha 2020). The

accompanying idol-worshipping often observed in sports fans has led to more significant physical activity of previously sedentary individuals (WHO 2020b). For example, basketball as a sports code reached unprecedented appeal levels far and wide from the hero-worshipping of Michael Jordan, presumably the most outstanding athlete of all time. It became a sport of choice in many countries. As a result, more people started to play basketball and continue to even today because of the phenomenon that Michael Jordan is/was.

In this chapter, I argue that COVID-19 has exposed the long-standing operational model followed by the sports industry as flawed and it needs a massive change to keep up with new trends and access its audiences which pre-COVID-19 conditions prevented. The sports industry favours the principles of neoliberalism accompanied by free trade and competition. Over the years, the sports industry's neoliberal agenda excludes most people from fully participating in different sports barred by exorbitant television packages and live attendance, which is nearly impossible due to high costs. I expand on the repercussions of these neoliberal tendencies in the sports industry later on in the chapter. I, therefore, argue that there needed to be a paradigm shift in the sports industry. While COVID-19 has left a social and economic destruction trail, 'new thinking' is necessary and inevitable. To ensure sustainability and relevance of the sports industry post-COVID-19, new strategies and technologies that will allow it to continue to offer sporting activities when 'live' game attendance and participation are not an option amid outbreaks of large scale pandemics are a necessity. Thus, post COVID-19, the sports industry should venture into uncharted waters if it hopes to continue to appeal and remain relevant to the kind of world that is being socially engineered by COVID-19. I argue, how fans consume sports and the nature/type of sports fans that the sports industry will attract post-COVID-19, will change the sports fraternity for years.

I have structured this chapter in the following manner: First, I define physical activity, sports, and exercise, and describe the various benefits associated with them. Second I look at the current sector model used in the sports industry. Third, I discuss the commercial sports industry sector revenue-making model to characterise the nature and extent of the economic impact of COVID-19 on the sports industry. Fourth, I offer a philosophical description of COVID-19 and describe why COVID-19 was the necessary seismic chaos. The sports industry needed to embrace the 'new paradigm'–a new model of doing things–to emerge from this pandemic more relevant and resilient to

future pandemics. Fifth, as part of this new paradigm' I offer new strategies and technologies as alternative options for sports to continue to provide sporting activities when 'live' game participation and attendance are not an option amidst large-scale pandemics. I end this paper with some philosophical and practical reflections on lessons that sports should adopt post COVID-19 era.

2 Definitions and the Benefits of Participation in Physical Activity, Sports, and Exercise

Physical activity, sports, and exercise have different conceptual meanings. However, they are often confused and interchangeably used as though they mean the same (Caspersen, Powell & Christenson 1985). Therefore, it is prudent to clarify differences and perhaps some overlaps in the terminology as our departure point. Physical activity is an umbrella term under which all sub-categories of physical activity fall. Physical activity is 'any bodily movement produced by skeletal muscles that result in energy expenditure' (Caspersen, Powell & Christenson 1985: p.126). Nature and forms that physical activity may take are often as a spontaneous activity such as in leisure, work, and transport or as an organised activity: 1) physical exercise that is aimed at **health promotion** and improving physical capacity, 2) physical training aimed at **performance benefits**: the physical capacity and performance (Corbin, Corbin, Welk & Welk 2012). Typically, the general public participates in activities that promote health, while athletes tend to engage in activities that would provide them with performance benefits.

Sports is all forms of physical activity which, through casual or organised participation, aim at expressing or improving physical fitness and mental well-being, forming social relationships or obtaining results in competitions at all levels' (Council of Europe 1983). According to the South African White Paper on Sports and Recreation (2013: 10 - 11), sports can be categorised into ***category one*** which are activities that are both physical and mental, passive recreation; ***category two*** is performed purely for fun and enjoyment, and ***category three*** active recreation entails competition, physical, psychological and economic benefits. Exercise refers to physical activity that is 'planned, structured, repetitive, and purposive in the sense that improvement or maintenance of one or more components of physical fitness is an objective' (Caspersen, Powell & Christenson 1985: 128). With worldwide COVID-19

related lockdowns, restrictions to homes, limited or no travel, and the closure of sports facilities, parks, and adventure spots meant reduced physical activities choices. Therefore, almost all forms of physical activity stopped.

The nationwide lockdowns have prevented individuals from leaving their homes to engage in regular physical activities and use community resources (Hall *et al.* 2020). While there is no available literature to assess the lasting impact of COVID-19 on physical activity trends, we could contemplate the possibility of a rise in sedentary behaviour lifestyles. Without COVID-19, the World Health Organization reported that 31% of individuals 15 years or older are physically inactive and approximately 3.2 million deaths per year are due to a sedentary lifestyle (WHO 2020b; WHO 2020c). Okazaki *et al.* (2011) reported a lasting significant decrease in physical activity in children and adolescents over three years following the 2011 earthquake and tsunami that ravaged East Japan. We can anticipate similar patterns post-COVID-19. There needs to be a concerted effort by the sports industry to get individuals engaged as quickly as possible post-COVID-19.

The benefits of participation in physical activity vary (see Malm, Jakobsson & Isaksson 2019). Physical activity practiced as exercise leads to better cardiovascular health (Wilson, Ellison & Cable 2015; Nyberg, Gliemann & Hellsten 2015), prevention and management of diabetes (Conn *et al.* 2014), management of hypertension (Casonatto *et al.* 2016) and improved immune function (Dhabhar 2014). Physical activity in particular sports can lead to psychosocial development for both old and young (Eime *et al.* 2013; Nowak 2014), personal development (Fraser-Thomas & Strachan 2016), better mental health with reduced anxiety (Wegner *et al.* 2014a; Wegner *et al.* 2014b; Bennett *et al.* 2015), insomnia (Lopresti, Hood & Drummond 2013), depression (Schuch *et al.* 2016) stress (Büyükturan, Naharcı & Kırd 2017) and other psychological disorders (Knochel *et al.* 2012).

Sports participation achieved through physical activity can offset the psychosomatic manifestations associated with pandemics. There is evidence that a sedentary lifestyle (currently induced by COVID-19) could have mental health impacts, which can exacerbate stress or anxiety in individuals due to isolation from everyday social life. There is also evidence to indicate that similar to other pandemics before it, COVID-19 and nationwide lockdowns could produce acute panic, anxiety, obsessive behaviors, hoarding, paranoia, and depression post-traumatic stress disorder (PTSD) in the long run (Dubey *et al.* 2020). What drives COVID-19 related psychosomatic manifestations is

the pandemic's impact on immediate family members, community, and the general population via different information platforms (Dubey *et al.* 2020). Furthermore, the possible loss of family or friends from the virus and the impact of the virus on one's economic well-being and access to nutrition could compound these effects (WHO 2020a).

The conceptual definitions and the limited literature on the benefits of physical activity presented provide the backdrop for many arguments in this chapter. I argue that the sports ecosystem faces a conundrum of a need to continue to offer opportunities for engagement in physical activity to maintain health and entertain spectators while at the same time trying to save lives. There is a fine line. There is a great need to keep individuals healthy and to engage them amid the gloom. However, exposing people to sports during a pandemic could have the opposite effects of increasing infection and mortality. It is therefore imperative that the sports fraternity strikes a perfect balance between entertainment and saving lives.

3 The Sports Industry Sector Model

To have a conceptual understanding of the impact COVID-19 has had on the sports industry, let us look at what the sector entails (Figure 1). According to the sports industry sector model, three categories of structures frame the sports industry (Pedersen & Thibault 2018). First, government-based units, agencies, and departments make up the first category of the ***public sector***. Public sector structures, facilities, or organisations owe existence to and for the people and the people; hence they are referred to as the public sector. They are usually provided for by the government/municipality of the day. They are in towns, cities, regions, states, provinces, territories, or countries where people serve their immediate needs. In most cases, the governments provide various facilities such as (recreation) parks, recreation centres, and sports areas to their residents, and formulate sport and recreation programmes and policies that cater to the physical activity needs of different strata of the community (Pedersen & Thibault 2018).

The second tier in the sports industry is the ***non-profit sector*** (Pedersen & Thibault 2018). These organisations do not exist to pursue the Friedman doctrine or the shareholder theory, which postulates that its primary responsibility is to its shareholders (Friedman 1970; Smith 2003).

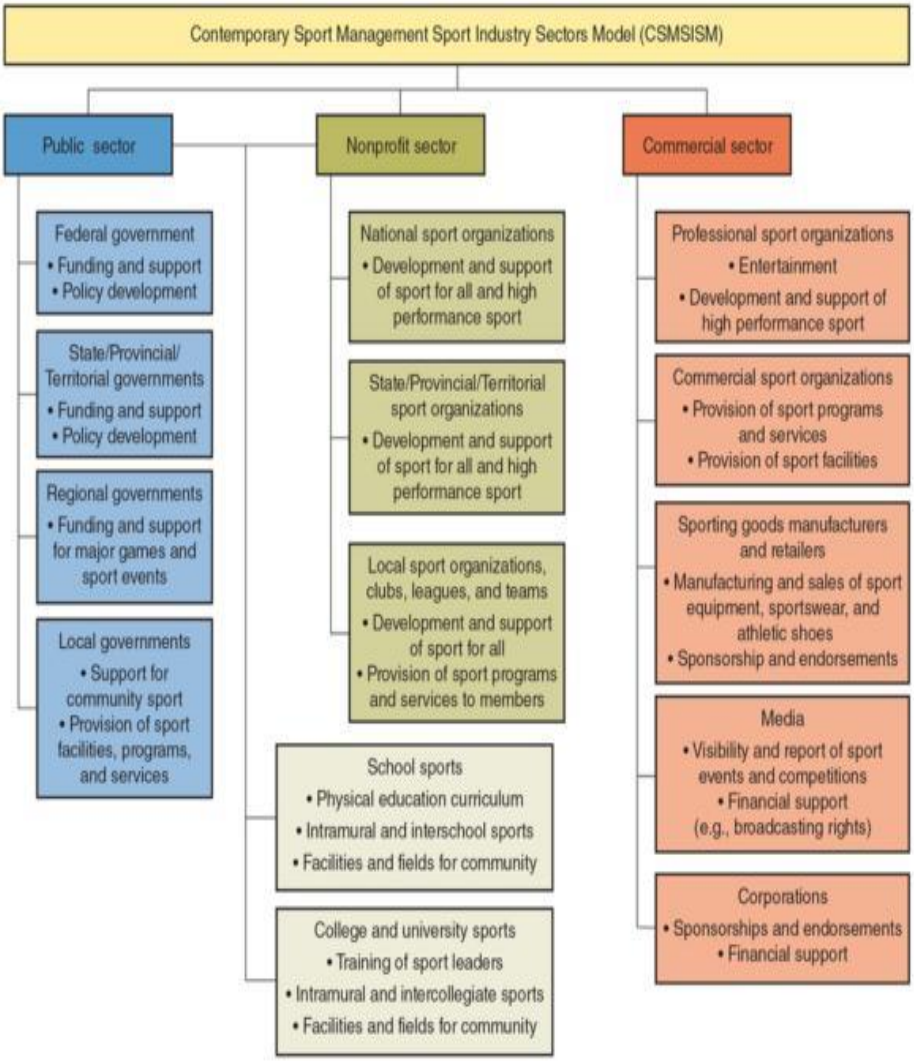

Figure 1: The sports industry sector model (Pedersen & Thibault 2018)

Government-sanctioned and -funded organisations for no-profit causes include primary schools, secondary schools, colleges, and universities

(Pedersen & Thibault 2018). Contrary to the Friedman doctrine, organisations in this category exist for social responsibility: a social cause, a special interest, and the needs of members for non-profit purposes (Pedersen & Thibault 2018). Usually, to serve in these organisations, members are elected to the executive committee and board of directors that craft the strategic direction (Pedersen & Thibault 2018).

The third layer of the sports industry sector is the **commercial sector** (Pedersen & Thibault 2018). It is in this tier where various sports organisations and their supporters operate (Pedersen & Thibault 2018). In this category, stakeholders entail professional sports franchises, leagues, and other sport entities; sports providers; sporting goods manufacturers and retailers; sports media; and corporations that support sports with sponsorship and endorsements (Pedersen & Thibault 2018). Organisations in this tier are the heartbeat of the entire sports industry, and without them, sports products and services to the whole population discontinue (Pedersen & Thibault 2018). Organisations in this tier are answerable to their shareholders, and the more profit they can make for them, the better (Friedman 1970). However, of late, increasingly, commercial organisations are ditching the stakeholder theory. Instead, they adopt the stakeholder capitalism theory, which is stakeholder-driven, to focus on tandem stakeholders within the environmental and social risks and opportunities provided by the context (communities) they operate (Samans & Nelson 2020).

For this reason, the arguments in this chapter will have a bias towards the commercial sector of the sports industry. I have intentionally chosen to construct my observations on the commercial tier of the sports industry since it is the mainstay upon which the whole sector rests. It is in this tier wherein massive COVID-19 related economic meltdowns are happening. The other levels of the sports industry have also experienced losses. However, theirs are primarily social. In forwarding this line of thought, I am acutely aware that both the public and the non-profit sectors have also lost considerable amounts of money. Large portions of the social responsibility government budgets that would ordinarily support the first two layers of the industry are fighting the immediate 'enemy' COVID-19 not catered for in the previous year's budgetary plans.

Moreover, many people are retrenched or not earning an income reducing taxes governments can collect for the fiscus. It is also a common cause going forward, all over the world, governments' future fiscus budgets

will be limited, leading to an urgent need to adapt the funding model for the sports organisation in the first and the second tier. There are inadequate funds to go by with the main priority for various governments to approach international money lending agencies to stimulate their economies during and post-COVID-19. Thus, the sports industry would have to fend off on its own with minimal funding options both from the government and the corporate sector.

At this stage, I would like to turn my attention to the commercial sports industry sector financial model to elucidate further how COVID-19 has led to epic financial losses that the sports industry will take years to recover from or not at all.

3 The Commercial Sports Industry Sector Revenue-making Model

Earlier on, I referred to an argument that nowadays, the commercial sports sector does not only exist to pursue the Friedman doctrine vigorously. However, profit-making is still their primary responsibility. Sports organisations generate profit through revenue by selling products and services (Nufer & Bühler 2010). Thus, a closer look at how they earn profit at this stage is essential (Figure 2). Revenue-generating options include various sources such as matchday/attendance revenue (Nufer & Bühler 2010), sponsorship and advertising (Nufer & Bühler 2010), merchandise (Nufer & Bühler 2010), participation fees, membership fees, concession revenue, broadcasting rights, and donations.

3.1 Matchday/ Attendance Revenue

Matchday/attendance revenue accumulates when fans attend the game live (Coates & Humphreys 2007). Matchday/attendance revenue entails income earned from a combined sale of ticket sales, food, and hospitality packages to fans during live matches (Sports Business Group 2013). COVID-19 social distancing guidelines resulted in the suspension of hosting live games, and this significant source of income stopped. Match ticket sales constitute a large portion of the revenue that sports teams generate (Nufer & Bühler 2010). Ticket prices in European soccer leagues, for example, range from €13–67 for regular games and €15–80 for top games (Nufer & Fischer 2013). Sports

organisations have suffered severe financial losses with the absence of matchday/attendance revenue. Most professional teams also sell season match packages for which they have had to refund fans.

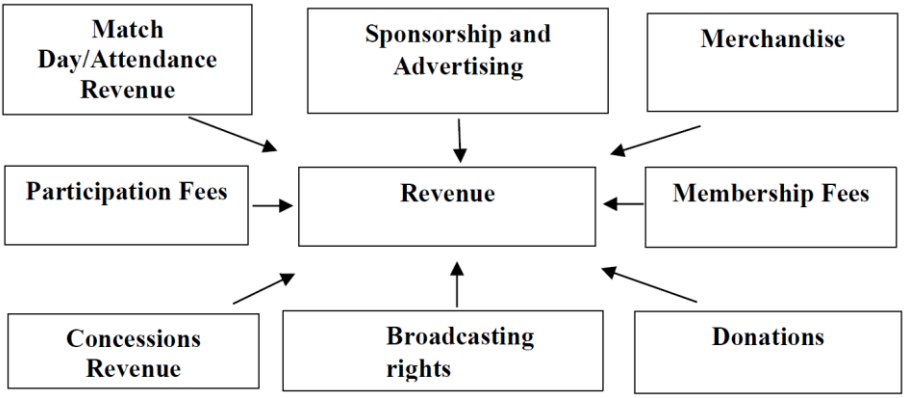

Figure 2: A conceptual revenue-making model for the sports industry

3.2 Sponsorship and Advertising

In 2019, the most prominent investors in sports sponsorships were financial services firms, automotive energy, and airline sectors, all of which have been heavily affected by COVID-19. They have had to slash their sponsorship budgets to ensure survival post the pandemic (Walker & Skelton 2020). Sponsors devote massive funds to competitions, teams, and individual athletes (Walker & Skelton 2020). With no live sports, no coverage on television and other platforms, and sponsors lose the foundations to promote themselves, activate and engage with fans, and conduct all other activities for which their rights and assets have acquired permit (Johan Cruyff Institute 2020). Rough estimates indicate that the sports industry has lost to the tune of £14.1 billion from sports sponsorship revenue this year due to the COVID-19 outbreak (Walker & Skelton 2020).

3.3 Broadcasting Rights

Television rights offer another excellent source of income for sports teams. Television companies invest billions into sports broadcasting rights they

purchase from various sports federations, which are then packaged and sold to viewers at exorbitant monthly subscription fees to recoup the money spent (Walker & Skelton 2020). The absence of live sports has led to mass cancellations for pay television subscription services, meaning less money television stations generate. In some instances, sports leagues have had to repay some of the money made out of selling television rights to pay television stations as a consequence. Added to this, COVID-19 has led to new competitors like Amazon and YouTube TV who offer the same services but allow the subscriber to choose their channel preferences. The flexibility provided by the new players in the broadcasting industry is at a fraction of the prices traditional television companies charge (Walker & Skelton 2020).

3.4 Merchandise

Sports merchandise is any item featuring a professional team's logo, mascot, or name for promotional purposes (Mertes 2020). To supplement match day/attendance revenue, sports teams devote their energies to commercial income, including merchandise. Teams sell merchandise in stadiums or online platforms if a team has a more expansive and global appeal worldwide. Teams have not been able to earn maximum income from merchandise because fans are not allowed to attend live games. On the other hand, the financial strain brought about by COVID-19 has also limited disposable cash that fans can spend, forcing them to weigh what are essential and non-essential amenities. A recent survey by the Federation of the European Sporting Goods Industry revealed that 45% of the sports teams suffered a loss in merchandise turnover of between 50 and 90% (Federation of the European Sporting Goods 2020).

3.5 Participation Fees

Events, activities, tournaments, and competitions hosted by sports organisations are also another good income source. Nowadays, sports teams hold coaching clinics, workshops, conferences, corporate/public tournaments, and umpiring courses to generate participation revenue. Revenue during these events, activities, games, and competitions may come from sponsors, the paying participants, and various exhibitors at the venue. The necessity to promote social distancing has limited sports organisations' ability to maximise revenue from participation fees.

3.6 Membership Fees

One of the most strategic financial resources for sports teams is membership fees (Wicker, Breuer & Pawloski 2010). Individuals sign up for different categories of memberships to access facilities and other amenities that the sports organisation offers. The annual membership fee provides a good source of revenue. While the revenue generated from membership fees is relatively low (compared to the other sources discussed), however, to run a successful enterprise, it nevertheless provides a good cushion for financial challenges that sports clubs experience, such as running costs and overheads. Sports teams have had to stop receiving, or in most instances, they have had to refund membership fees, which have caused many financial strains.

3.7 Concessions Revenue

Food services at the stadium during live games can entice fans to come through the gate to watch matches, and thus, concessions become a pivotal component to bring in revenue for both the sports franchise and the food service provider (Sweet 2013). Concessions sold at a venue constitute a large proportion of income that a sports team generates in hosting a live game (Miller, Washington & Miller 2012). Concessions thus become strategic and innovative sources of revenue to supplement budgets to afford rising player salaries and the expensive costs for owners to operate the team and the sports facility (Levine 2007). Sports teams tend to contract their concessions out to food service providers and still receive a large cut of what they make (Blackshaw 2012). With the outbreak of COVID-19, the suspension of live games' attendance left sports teams deprived of this valuable revenue source.

3.8 Donations

A donation is any form of gratuitous disposal of property (Kempen 2019) and any gratuitous waiver of a right or renunciation of a right, that is, without expecting something in return (Nel & Klopper 2019). Donations can be financial or in-kind (Nel & Klopper 2019). Gifts have become strategic social responsibility artillery for most individual and corporate donors. First, it allows donors to engage with community causes, which can carry financial benefits for the business as customers/clients favour companies that care about their immediate community's needs. Second, donations have some positive

economic benefits, such as tax rebates. In most countries, donors get tax rebates for donations. For example, in South Africa, donors can, in return, gain tax rebates of up to a maximum of 10% of taxable income per year. Covid-19 has forced donors to consider which projects get funding carefully or not. In big companies, 2021 and onwards, corporate social responsibility budgets are slashed or scrapped, meaning that sports teams can no longer access this valuable funding source.

4 COVID-19: The Necessary Chaos for the Sports Industry

I argue that perhaps the sports industry needed COVID-19 as the chaos that accelerates novelty's emergence in thinking about staging sports events during pandemics. Saqr and Wasson (2020) argue that global pandemics guarantee planetary crises and opportunities to advance planetary wisdom, survival, interconnectedness, collaboration, health promotion, and sustainable ecology–newness. According to chaos theory, the human brain is a chaotic system (Holland 2010). Minute changes in our reality as we know it could result in substantial changes in our experience. Our immediate reaction depends on our brains' initial conditions and those changes in reality, and those initial conditions are continually changing. Thus, the human psyche offers a different response because of individual differences and their states that vary from one moment to another. In terms of the chaos theory, our response to 'chaos' entails many energy states called 'hills' because they require high and 'valleys' that use low energy. The whole chaos system tends to gravitate to the valleys. Thus, the human psyche responds to the ever-changing and random demands of reality (chaos) in ways that involve the least expenditure of energy (Holland 2010). The sports industry uses some of the strategies and technologies I suggest in the next section on an *ad hoc* basis. Until now, the sports industry has not developed and expanded its offerings to its broader audience because the tendency has been to fall on the options that require less energy (to push for profits). To a large extent, the reluctance to do this is due to the neoliberal agenda or consumerism that occupies the sports industry's thinking.

Coakley (2011: 75) argues that sports' primary goal is to reaffirm 'a belief in competition as the primary basis for assessing merit and allocating rewards'. Perhaps, the neoliberal sports agenda first came to the fore with Henry Russell's famous assertion, 'Men, I'll be honest. Winning isn't everything', 'Men, it's the only thing!' (Rosenbaum 1950). According to

Miller (2012: 24), 'sport most spectacular embodiment [of neoliberalism], is through the dual fetish of competition and control, individualism and government.' Accordingly, sport perpetuates the notion that 'economic winners deserve power and privilege' while 'economic failure is due to poor choices or weak character' (Coakley 2011: 75). As a result, the sports industry enables a dangerous discourse that 'promotes consumption as a lifestyle (Coakley 2011: 75).' According to Brownell (2019: 16), 'changes like the global political economy have also been expressed in the commodification of the sporting body and sports events.' Perhaps, the biggest question is: what value (applicability and efficacy) does the chaos theory hold for the sports' neoliberal agenda?

To answer that question, we need to look no further than the fact that the sports industry has been on mental blinkers for several years, acting blind and deaf to sports fans' repeated pleas worldwide. The sports industry has been chasing the neoliberal agenda, happy to fill sports arenas with fans every week and ignoring their essential stakeholders' needs: the fans. This arrangement has been the sports industry's cash cow. As a testimony to this, the sports industry's conceptual revenue-making model has not changed in decades. Ticket prices, merchandise, concessions have been skyrocketing, making it impossible for the working class to access and share in sports' full experience. When their pleas fell on deaf ears, sports fans displayed their displeasure by signing up for free-to-air television that holds many sports broadcasting rights packages. The monthly subscription fees for these packages are exorbitant, and many sports broadcasters offer no flexibility to choose the channels that interest subscribers. The emergence of Amazon and Youtube TV with their flexible offerings has been a welcome addition. However, developing countries do not have access to these new players.

The sports industry is steadily increasing television rights prices, and broadcasters are only glad to pass on their subscribers' inherited costs: the sports fans. The subscription fees have been exponentially rising over the years. Even when sports fans watch free highlight packages on platforms such as Youtube or Twitch, the clips are incessantly interrupted by advertisements. The large-scale advertisements on the highlight packages make them an expensive option for sports fans that can not access and afford reliable and cheap internet services such as in developing countries.

Thus, as a response to the chaos in the sports industry necessitated by COVID-19, there is a need to rethink and develop new ways to make sports

more accessible to the fans. While some options I discuss in the next option have high costs attached to them, I argue that they could be a great start to demonstrate the 'new paradigm' desperately needed to survive post-COVID-19.

5 Alternative Strategies and Technologies to Use to Offer Sports during and Post-pandemic

5.1 Biologically Safe Environment/ Bio Bubble

A biologically safe environment/bio-bubble is a strictly controlled bio-secure environment that monitors infection with COVID-19 of players, management, and staff. In general, for the bio bubble to successfully curb the virus's superspreading and supertransmission capabilities, before departure, players, coaches, and the backroom staff are monitored their movement and then tested for COVID-19. The team then travels in a chartered flight to limit interaction with the general public. On arrival at the destination, the team resides in a location or facility that offers all the amenities required, like on-site accommodation, field/court, gym, and a group of medical personnel sealed from outsiders. The intended outcome with this arrangement is to restrict the further spread of coronavirus by testing everyone before entry into the bio-bubble and controlling every person's movement at the facility to monitor and manage a safe environment.

Additionally, a bio-bubble offers regular testing and quarantine zones. Should any team member present any COVID-19 related symptoms or test positive, he/she restricted from interacting with the team members and placed in a quarantine zone with further strict medical procedures imposed (www.sacricketmag.com). Of course, only the big sports teams possess the financial muscle to stage sports competitions under bio-bubbles daily to keep every member in the set-up.

5.2 eSports

eSports, also known as electronic sports, or e-sports, entails 'a form of sports where electronic systems facilitate the primary aspects of the sport; the input of players and teams, as well as the output of the eSports system, are mediated by human-computer interfaces' (Hamari & Sjöblom 2016: 211). Simply put, eSports is a sports competition employing video games. Over the last decade,

eSports has been growing in popularity, with an estimated total audience of 495 million by 2020 and predicted to reach 606 million by 2023 (Rietkerk 2020). In 2020, the global eSports economy will reach $1.1 billion (Rietkerk 2020). Seventy-five percent of eSports revenues this year is made up of 1) sponsorships and media rights, totalling $822.4 million, 2) consumer spending on tickets and merchandise totalling $121.7 million, and 3) game publishers' investments into the esports space via supporting tournaments through partnerships totalling $116.3 million (Rietkerk 2020).

Usually, eSports game offerings are in terms of specific genres, such as multiplayer online battle arenas, first-person shooters, real-time strategy, collectible card games, or sports games (Hamari & Sjöblom 2016). Typically, through eSports, professional or amateur individuals or teams compete against each other through video gaming. The competition organisers coordinate the different e-leagues, e-ladders, and e-tournaments, and where players customarily belong to groups or other 'sporting' organizations sponsored by various business organisations (Hamari & Sjöblom 2016). Since all eSports gaming happens online, there is no physical interaction between the participants even when held on-site. Thus, the regulations related to social distancing are adhered to at all times.

The downside is that eSports equipment such as gaming laptops and platforms such as hardware and software, internet penetration, the internet speed, and the joining fees are quite expensive, making this an option available to a select few.

5.3 Virtual Events and Sports

Virtual events refer to sporting tournaments or activities wherein competitors do not gather at the same geographical location or jurisdiction to participate in the event; however, they compete against each other on a virtual platform (Marshall 2020). Typically, the participants enter the event online on a designated tournament website or use a mobile phone application (app) downloaded from Google Play Store or Apple App Store (Marshall 2020). As a rule, competitors have to carry their smartphones, fitness watch, activity tracker, and smartwatches with them provided that they can independently connect to the cellphone networks while participating (Marshall 2020). The use of technology enables tournament organisers an opportunity to track participants' live'. Naturally, the competitors start simultaneously, and the

mobile app tracks their progress as they complete the course. More often than not, competition organisers make competitors' progress available in real-time for anyone to see. In some virtual events that adopt this format, the 'live' competition reaches a broader audience on television or the internet. Alternatively, the competition organisers may decide against holding the event on a standard date and time. Instead, they may allow the competitors to complete the event in their own time and upload their times using their smartphones or smartwatches (Marshall 2020). After that, players are ranked accordingly, and a winner is declared.

While virtual events are still a viable option in pandemics, some critics have argued that they pose health and safety risks for participants, and serious questions arise about protecting participants' information if a 'live' event is held (Marshall 2020). However, they are here to stay, and they are gaining popularity very fast. As an example, the popular Comrades ultramarathon held in KwaZulu-Natal province of South Africa between the cities Pietermaritzburg and Durban was virtual. It proved a resounding success. The other added benefit extended to the Comrade Marathon Association (the organisers) by hosting a virtual event was expanding participation to competitors that would not ordinarily participate in the actual event. There were 5, 10, 21.1, 45, and 90 km events, a first for the 95-year old grueling event.

Virtual sports are electronic games or simulations of sporting events generated by software programmed to comply with a set of rules that mimic real sporting events. Equally, virtual sports do not occur in one common physical space. However, competitors enter the competition and participate in their homes' comfort or a geographical location closer to them. In virtual sports events, athletes compete against each other by and large, attached to technology that measures their output (York 2020). As they compete, an athlete's avatar appears on a computer-generated environment, which resembles the real terrain they would encounter in the actual event (York 2020). After that, the event streams on television and the internet. For example, the 2020 Tour de France moved to the end of August due to the COVID-19 pandemic. However, the virtual race was in July. Though the virtual version had six stages compared to the traditional 21, professional athletes competed against each other fiercely. The virtual tour also allowed all cyclists to compete, and there was even a woman's race, something that the actual race does not allow.

Similarly, the drawback for virtual sports is that equipment, internet

penetration, internet speed, and the joining fees for these events could become quite expensive.

5.4 Health and Safety Restrictions and the Number of Spectators in Stadiums

Earlier in the chapter, I argue that most sports codes, leagues, and sports federations' suspended or had their operational models substantially modified to limit human interaction is routine in sports events (Baggish *et al.* 2020). Naturally, sports events take place in an outdoor or an indoor arena that offers some ventilation. However, a full spectator attendance capacity leads to the deterioration of circulating air quality, one of the enabling factors for the coronavirus's spread. The number of spectators in a sports arena has a direct bearing on the quality of circulating air. Thus, sports events with poor ventilation can quickly become super spreaders or super transmitters of COVID-19. Adequate ventilation is key to lowering the risk of infection (Copley 2020).

To reduce the number of spectators allowed to attend sports arenas, limit new infections. When the first COVID-19 infection curve had flattened down, some continental and domestic competitions opened up sports arenas for live games attendance with a restricted number of spectators. For example, as of the 1st of October 2020, the United European Football Associations (UEFA) Executive Committee passed and adopted a resolution to allow sports fans back to stadiums with attendance capacity reduced to only 30% (Calli 2020). The English Premier League (EPL) adopted a slightly different approach in using a multi-level tier classification system based on the COVID-19 epidemiological profile of the area in which the stadium is. In **tier one,** where the infection risk is low, stadiums are allowed 4,000, or half the stadium capacity, whichever is lower. In **tier two** areas, the limit is at 2,000 spectators outdoors or half the capacity. No spectators are allowed in the **tier three** regions where COVID-19 infections remain acute (Prince-Wright 2020). Additional health and safety restrictions include opening multiple arena entrances and having spectators seated for the game's duration, which can significantly impact the number of contacts people accumulate (Copley 2020).

5.5 Disinfectant/ Sanitary Tunnels

Disinfectant/sanitary tunnels are portable structures made of steel and poly-

vinyl chloride (PVC) materials found outside venues where many people congregate, such as malls, markets, railway stations, airports, or sports events (Biswal *et al.* 2020). They present in varying distances ranging from 16–25 ft. They come in two forms: 1) **static** whereby a person rotates inside the station for 10–15 minutes, and the disinfectant sprays from nozzles arranged in the whole of the circumference and dynamic types, and 2) **dynamic** whereby a person moves from the entrance to the end of the structure and sprays with a disinfectant throughout the path (Biswal *et al.* 2020). The spray is a mist of sodium hypochlorite solution, a component of commercial bleaches and cleaning solutions, and used as a disinfectant in drinking and waste water purification systems and swimming pools (Sengupta 2020). While the efficacy of disinfectant and sanitary tunnels on COVID-19 is suspect, denounced as providing a false sense of security on individuals (Biswal *et al.* 2020), perhaps, it might be useful as a weapon to fight other pandemics in the future.

5.6 The Use of Artificial Intelligence (AI) in Sports Events

Artificial intelligence (AI) denotes machines programmed to simulate human intelligence by thinking like and impersonating various human actions (Frankenfield 2020). Remarkable technological advances brought by the Fourth Industrial Revolution (4IR) has accelerated the machines' capabilities of simulation of human intelligence. Thus, currently, the devices are no longer only capturing 'explicit' knowledge; however, they are now developing a 'tacit' knowledge – the intuitive know-how embedded in the human mind (Crameri 2018). The term also refers to any machine that demonstrates traits associated with a human mind, such as learning and problem-solving (Frankenfield 2020). As a result, the application of AI has transcended several sectors, including sports events.

Several authors (Pacis, Subido & Bugtai 2018; Kuziemsky *et al.* 2019) have reported using AI in telehealth and telemedicine. Telehealth makes use of information and communication technologies to transfer medical information to deliver clinical and educational services (WHO 2009). On the other hand, telemedicine allows sharing medical information through interactive digital communication to perform consultations, medical examinations and procedures, and professional medical collaborations at a distance (Dinya & Tóth 2013). Amongst other roles that IA performs for telehealth and telemedicine include 1) remote patient monitoring, 2) clinical assessment and

evaluation, 3) conversational agents and virtual assistants, 4) delivery of chronic medicine to patients, 5) retrieval and analysis of data to enable patient's self-diagnosis, intelligent assistance, and diagnosis, and 6) the use by medical research and academic training or consultations which enables medical experts from other countries to connect and collaborate to mention a few (Pacis, Subido & Bugtai 2018; Kuziemsky *et al.* 2019). Perhaps the most significant breakthrough in the use of AI is its application on epidemiological transition– the monitoring of infectious and non-infectious disease outbreaks–to stage an immediate response.

The applicability of AI in sports arenas includes 1) to disinfect the field and seats at set times before and during the games, 2) to monitor crowds through overhead cameras and sensors to anonymously track and record the movement of fans in real-time, 3) to monitor individual's exposure to COVID-19 using mobile applications, 4) the ordering and delivery of meals to spectators and 5) enforcing social distancing.

5.7 Shortened Sports Events

On a recent visit to the United States (US) before the outbreak of the coronavirus, I got a rare opportunity to attend a live National Basketball Association (NBA) game between the New York Knicks and Detroit Pistons at the iconic [James] Madison Square Garden arena in downtown New York City (NYC). The off the field festivities associated with a basketball game enhances fans' live experience. While a basketball game is four periods of 12 minutes (48 minutes in total), plus a 15-minute halftime break with entertainment, however, since the game clock stops frequently, games run more than 2-and-a-half to three hours. I am raising this critical point very much aware that reducing time for sports events could kill the essence that attracts sports fanatics to sports arenas; however, it might be the only option. Perhaps, reducing the time that fans spend in the sports arena is ideal in pandemics to reduce contacts per person.

5.8 The Use of Technology in Sports Stadiums

The use of technology in sports stadiums has been in use for some time. The outbreak of COVID-19 has intensified the need for technology to prevent, monitor, and act swiftly to curtail infection spikes in sports events, which can

be superspreading and supertransmission monsters quickly. The application of technology in sports stadiums amid COVID-19 could include: 1) staggered arrivals, 2) the allocation of seats to promote social distancing such as in having different sized 'bubbles' of spectators within the seating arrangement, 3) contactless spectator check-ins, 4) contactless meal, and beverage dispensers, 5) touchless taps in restrooms, 6) digital signage with apparent health and safety instructions and updates, information on catering areas, one-way entrances and exits, 7) the use of wearable technology devices that could help people maintain social distancing at sporting events, 8) contactless sanitising stations, and 9) the overall architectural design of stadia, in particular, the stairs, entrances, natural ventilation and often narrow walkways (Buxton 2020).

5.9 Virtual Fans

The advent of the 4IR with its speedier internet of things enables the sports industry to enhance the fan experience while viewing games amid COVID-19. To a large extent, the sports industry has been content with a *top-down* approach in determining fan experience framed by broadcasters instead of a *bottom-up* praxis whereby the agency of significant stakeholders such as fans dictates the viewing. Most sports codes, leagues, and sports federations have had to rethink how spectators can get involved in games without physical attendance in sports arenas. Virtual sports viewing was born. There are an assortment of ways in which different sports codes have achieved this feat. For example, the NBA allows fans to sign-up online and display more than 300 virtual fans' faces on a 17-foot-tall video screen standing next to the court (Mashayekhi 2020). Soccer leagues such as the EPL in England, La Liga in Spain, Bundesliga in Germany, and the Premier Soccer League (PSL) also beam fans' faces on the television screens. The fans' live reactions to every movement, shot, or diss is 'live.' The Major League Baseball and other soccer leagues allow fans to purchase and display cardboard cutouts of their faces in the stands during games. The National Hockey League used jumbotrons to post humorous messages at strategic moments that reminded fans about different aspects of the game with a twist of sarcasm or locker room banter. The EPL and La Liga teamed with Electronic Arts (EA) Sports company to create a virtual fan experience for television viewers or live streamers using bespoke and team-specific crowd noises and chants (Risi 2020).

7 Conclusion

In this chapter, I have argued that COVID-19 presented substantial challenges for the sports industry. The suspension of sports leagues, attendance of live games, and nationwide lockdowns had a profound economic impact and necessitated the emergence of 'new thinking' around hosting sports events amid pandemics. It is essential to accentuate physical activity benefits before and amid pandemics for the population. Thus, there is a need for the sports industry to strike a delicate balance between offering sports events and opportunities for continued participation in physical activity and ensuring the safety of the population. For far too long, the sports industry has been operating in a silo, ignoring the vital stakeholder that is their primary consumer: the fans. The neoliberal profit-making agenda that is the backbone of the sports industry has prevented the imagination and consideration of 'newness' needed for sustainable existence and relevance in a sector like the sports industry. I also argue that perhaps the chaotic seismic conditions that prevail during pandemics such as COVID-19 are what the sports industry required to accelerate the much-needed changes. It remains unclear if the sports industry will not revert to its default high ground and entrench its neoliberal agenda on these newfound strategies and technologies that have been useful when saving lives was more important than entertainment.

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