

Module 4. Resisting Disruption

Unit 4.1

4.1.1 Disruptive Innovation

Case 14: The History of Sports Innovation and Disruption:

Sports have had a long history of being disrupted, but it has to be acknowledged that in the past 10 years sports have been disrupted more than in its entire history. Historically, sports were recreational live events, and there was not much innovation happening in that space until the late 1800s and early 1900s, when modern sports started to form themselves and many modern sports were invented.

Figure 1: Dempsey and Carpentier getting ready to square off



Source: July 2, 1921. Jack Dempsey and Georges Carpentier get ready to square off in championship fight before 80,000 fans. [Online Image]. "Dempsey vs. Carpentier". Retrieved November 2020 from <https://www.pophistorydig.com/topics/tag/history-of-radio/> Screenshot by author.

Telegrams were actually the very first thing to disrupt sports, as people could receive information about what happened in sports. After this, radio followed. Today it is hard to

imagine, but people met for telegram and radio watch parties where they would meet at the Times Square in order to follow remote sporting events. At that time, team owners were scared that these technologies would drive income away through cannibalizing their fan bases. When television eventually arrived, sports got more visual experiences and fan bases grew exponentially. In this case also, it was an external innovation having an effect on the sports industry, and not the other way around. Again, team owners were concerned that these developments would cannibalize their fan bases. This did not happen, but when games could be broadcasted, this marked the birth of national television and, eventually, of global television.

Figure 2: Times Square



Source: Times Square, New York City [Online Image]. Retrieved November 2020 from <https://www.britannica.com/topic/Times-Square> Screenshot by author.

This marked an explosion of sports content around the 80s and 90s. Asset values for sports continued to rise, and the globalization of sports started to happen and speed up. In the mid of the 2000s, when mobile appeared, social media allowed teams to interact with their fan bases and scale in a way that had simply been impossible prior to these developments. On the one hand, this proved beneficial, but, on the other hand, it also introduced some challenges for sports teams, as these technologies started to stand between teams and their fans. It was not clear anymore what fans wanted, for the filter of social media created a different kind of filtered communication. All these historic

examples nicely illustrate how broad technological and societal trends are changing the world of sports and disrupting the position of sports institutions. These developments forced them to innovate and change their business models on a regular basis. While this has been a general trend, some sports institutions have lately realized that if they anticipate and prepare for a potential disruption, instead of waiting for it to happen, they would do better than their competitors and have a chance of survival.

Figure 3: Streaming equipment



Source: Best-of-Breed Solution [Online Image]. World's First Live Streaming Sports Event in 360 Degrees. Retrieved November 2020 from <https://www.live-production.tv/news/4k-8k-arising/worlds-first-live-streaming-sports-event-360-degrees.html> Screenshot by author.

There are two main ways to get ahead of innovation:

1. **Cultivate a culture of innovation:** The LA dodgers, e.g., have a culture of innovation, and, even though they do not have a formal innovation program, they have separate ventures as separate investments. They are not necessarily associated with the club but are eventually going along with trends in sports and are closer to the idea of moonshots than many others in the sports industry. Besides, in 2018 they launched a global sports innovation platform, designed to enable and support collaborations between forward-thinking organizations and startups. All in all, it can be seen that

establishing a culture of innovation, supported and carried out by the top management, fosters new projects and often creates completely new, previously unthought-of, business models for sports institutions.

2. **Adjacent partnerships and collaborations:** Barcelona working with UEFA and FIFA is, for instance, on the long run creating separate vehicles that are responsible for the creation of moonshots. Collaborations with teams from varied sports are supposed to bring in potential moonshot projects. Another great example is the Arsenal Innovation Lab, a ten-week program working with startup organizations in their area in order to identify groundbreaking new fan experiences.

Finally, we can conclude that sports have changed dramatically in recent years, and actors in the sports industry, having long been behind the pace of innovation, are slowly but surely catching up to macro trends and disruptive innovation. As already discussed, we cannot accredit sports clubs or institutions solely with that progress, but we can give more credit to the fast professionalization of the industry by big external players entering the industry and establishing different streamlined approaches to innovation.

Case 15: COVID-19 Disrupting the Sports Environment

In the light of recent global developments regarding the COVID-19 pandemic, it becomes more and more clear that societal changes introduced by this event will not only change various other fields in our lives, like social norms in general, the shift to remote work and future of work, chances in tourism etc., but will also inevitably change the sports ecosystem. The full impact is still unclear. Looking at football athletes playing in front of empty stadiums, as having thousands of fans tightly packed together in a venue, is neither legally allowed nor socially responsible. We are seeing other technological solutions and workarounds emerging.



Figure 4: Soccer equipment during COVID-19 pandemic



Source: COVID-19: Checking in on its impact on the sports world [Online Image]. Retrieved November 2020 from <https://www.thompsoncoburn.com/insights/publications/item/2020-04-23/covid-19-checking-in-on-its-impact-on-the-sports-world> Screenshot by author.

New products, new regulatory frameworks for sports, and new businesses models are emerging day by day. Sports organizations and venues will not only have to think about hygiene concepts when fans eventually return to their stadiums, but might also be faced with a change of consumer behavior and demand for physical presences. With current knowledge of the pandemic, it could take several years to fully contain the virus, which is why it will probably be ethically impossible to try to fill empty stadiums with fans in the near future. Experts are convinced that there will be various innovations with regard to the home-viewing experience of sports.

Figure 5: Baseball equipment during COVID-19 pandemic



Source: As sports teams consider reopening venues, what is their liability due to COVID-19? [Online Image]. Retrieved November 2020 from <https://www.thompsoncoburn.com/insights/publications/item/2020-05-20/as-sports-teams-consider-reopening-venues-what-is-their-liability-due-to-covid-19> screenshot by author

These events and new products (their creation is triggered by this pandemic) might just as well be what many fans prefer and did not know they wanted before the pandemic. Declining stadium attendance is nothing completely new, though, and has been fueled by better video streaming options over the last two decades. It is believed, however, that recent developments could be the tipping point sending various venues and event locations into bankruptcy for good. As we are emerging and exploring technological solutions like virtual reality, with fans being able to experience more and more realistically the feeling of sitting in a stadium while being at the comfort of their own homes, the way fans consume sports could change for good. It has to be underlined, though, that developments like COVID-19 are also breeding ground for new products, new organizations, and leaders of tomorrow. When looking at FC Barcelona Universitat, FC Barcelona's online e-Learning platform, for example, we are seeing a threefold increase in sign-ups for online classes compared to pre-pandemic numbers. In general, it is

expected that fans will want to continue spending parts of their expendable income on the sports they love and related products. There might just be a massive shift in spending behavior on the horizon and sports clubs, and other organizations in the sports environment should not be paralyzed by that change and experience COVID-19 as a threat. In contrast, they must understand that now is the time to embrace innovation, the time for bold moves and new solutions for the fan experience of tomorrow.

Figure 6: Baseball player in the field in times of COVID-19 pandemic



Source: Can Baseball Survive Covid-19? [Online Image]. Retrieved November 2020 from <https://www.bloomberg.com/news/articles/2020-07-28/the-empty-stadiums-and-fake-fans-of-covid-baseball> Screenshot by author

4.1.2 Findings. Disruptive Innovation

Disruptive innovations are innovations that can shape the competitive positioning of incumbent institutions and make their business models obsolete. These institutions are often asking themselves how they can use innovation to remain competitive, instead of being disrupted. They worry about how to protect themselves against disruption and have to constantly weigh how and, more importantly, when to go beyond incremental innovation. Companies like the FC Barcelona BIHub have optimized co-development programs where startups collaborate with their internal staff. It has been shown that this

approach works extremely well with incremental innovation projects but much less with radical innovation. The Barça Innovation Hub development program's main goal has been to serve and solve their users' current pain points by integrating external expertise with their internal know-how and assets. With this approach, they have been successfully improving their current program and have been developing new solutions in a time frame of 6-18 months. On a side note, this has helped them to develop internal talent.

Unfortunately, this approach of innovation encounters roadblocks when companies try to use it for radical innovation projects, as it is often hard for internal staff to disrupt themselves when their pre-existing knowledge on the subject matter is limiting their view. In the case of Barça Innovation Hub, they had to first gain trust and confidence of their internal staff in order to build this innovation process in-house. What is more, they have encountered compliance limitations that have introduced constraints with regard to their innovation scope. We have also learned that sport is usually influenced by disruptive innovation and is more often not the source of it.

Companies nowadays are often thinking about competitions, known competitors, other sports clubs in the discussed context. What is happening, though, is that more and more frequently competition is coming from non-traditional contexts like startups or institutions from completely different industries. A great and well known historic example is the case of Blockbuster, which was completely disrupted by the means of Netflix & Co. We are seeing the same with companies like Barnes and Nobles that were disrupted by Amazon and other online bookstores.

Another approach to handle we are seeing is to move towards it instead of trying to outpace the inevitable. Pharmaceutical companies have been investing in biotechnology since the early 80s and have been subsequently acquiring many biotech startups. From there emerged the biopharmaceutical industry with big players like Roche and Johnson & Johnson.

Other companies, like McKinsey, having a long history of providing consulting to top management teams, have in the 2000s started to see data analytics as a core part of managerial decision-making and as a really disruptive area, changing the nature of consulting services. Instead of waiting for startups to disrupt their offerings, McKinsey created McKinsey Solutions, where they invested in new software around data analytics. Furthermore, they acquired startups in that space. This illustrates a great example of a company moving towards disruption first by deciding to enter the space first and creating a separate entity. This guaranteed financial independence, a separate business model, and an autonomous culture, which was extremely important to successfully establish themselves as an independent business.

Other big players like Google and Telefonica have decided to separate their moonshot factories. Google X and Alpha have KPIs completely different from their original business.



Companies like the LA Dodgers also invest in partners that could potentially be disruptive later on.

To summarize, actors in the innovation process need to understand where disruption can stem from and subsequently prepare themselves by strategically balancing their innovation portfolio and partnerships. Successful case examples have shown that by moving towards disruption and accepting that cannibalizing one's own business models can often counter and hedge against potential failure of the business. Also important is the fact that successful disruptive innovation often requires spatial and cultural separation.



Unit 4.2

4.2.1 Service Innovation and Personalization in Sports

Case 16: Orbea - MyO Custom Paint Bicycles

Originally founded in 1840 by the three Orbea brothers, unknown to many, the company's first product were actually handguns. In the tumultuous political climate of that time in the Basque Country of Spain, handguns were a much needed and requested product. It was only in 1920, when gun restrictions were increasing and many people were in need of transportation, that Orbea decided to change their business model and produce bicycles and baby carriages. After a long history of producing guns, the Basque manufacturer gained vast expertise in shaping and joining round tubing. This meant that producing bikes and baby carriages was easy, and Orbea could keep most manufacturing in-house. Over the following decades, the gun and baby carriages business slowly faded out, and, by 1969, the Basque company focused on producing bicycles only.

Figure 7: Orbea employee



Source: Orbea MyO: Unique As Me [Online Image]. Retrieved November 2020 from <https://www.orbea.com/us-en/news/orbea-my0-unique-as-me/?category=orbeal>
Screenshot by author



Another peculiarity about Orbea is that they are one of the world's only employee-owned bike manufacturers. This change to the organization happened during the 1960s, when, due to financial hardships and rough economic climate in Spain, the company faced bankruptcy and was eventually taken over by a group of their employees. Parker Degray, Orbea's U.S. marketing coordinator describes the following:

It's really cool because everyone down to the person who glues the box closed before it ships has the ability to become part of the co-op and have a stake in what's going on in the company. Everybody there is motivated to see the company do well and you see that trickle down the line. There aren't really any other big bike brands that are run as a co-op. And then because the co-op is part of a larger umbrella corporation of co-ops (Mondragon Cooperative Corporation), it means Orbea has access to different assets that a lot of bike companies don't have. (Lin, n. d., para. 16-17)

Figure 8: Orbea painting tools



Source: Orbea MyO: Unique As Me [Online Image]. Retrieved November 2020 from <https://www.orbea.com/us-en/news/orbea-myo-unique-as-me/?category=orbeal>
Screenshot by author

In recent years, Orbea has been changing bike painting and personalization for bicycles massively. While Orbea is producing their frames to a large part in Asia, all final work, including paint and assembly, is done in-house in Spain. When introducing their bike personalization program, MyOrbea, where customers could choose a variety of different colors and finishes for their bike around a decade ago, Orbea did not expect the program

to become so successful. Since then, the company has invested lots of thought and resources in their special process of bike painting and introduced a new custom paint configuration online application, called MyO. Customers can fully customize their bikes in a 14-step process, by selecting color and finish for nearly every part of their dream bike. In total, the online configurator enables customers to configure more than 1 million unique bike options and has been a huge success in the cycling community.

Figure 9: Orbea employees working



Source: Orbea benefits from being employee-owned [Online Image]. Seven things you should know about orbea. Retrieved November 2020 from <https://www.thepros closet.com/blogs/news/seven-things-you-should-know-about-orbea> Screenshot by author

In 2018, Orbea overhauled its Mallabia facility and invested substantial amounts in in-house painting and a new assembly area. Miguel Ángel Estandía, the brand's industrial director said the following:

Our goal is ambitious: to become the leading brand in the world of cycling in the area of product customization. As bicycle manufacturers, we need facilities that enable us to be more efficient and better along the entire production chain with one single goal in mind: to offer more and better solutions, and to do it faster. (Sutton, 2017, para. 3)

Fueled by that goal investments for the overhauling, the facility was largely attributed to the growing demand and success of Orbea's MyO program. Furthermore, Orbea is responding to recent macro trends and growing customer environmental awareness by putting a focus on sustainability and, therefore, aims to produce less waste during production. They subsequently designed a zero-waste paint facility, with which they recycle every small bit of overspray and re-use the material. Finally, Degray explains why other larger brands are not following suit:

Well if you're too big, it doesn't work because you can't scale it. It's actually almost scale-limiting. If our competitors wanted to do personalized paint all the way down to \$2500 bikes as we have, they would have to buy an entire facility and completely change the way that they do warehousing, ordering, and shipping. We've really come to own this niche in the market. We moved our facility back to Spain to have more control over the end product. All of our ordering systems and forecasting is all done around offering personalized paint in-house. (Lin, n. d., para. 24)

Figure 10: Orbea employee painting a bike



Source: Orbea is changing bike painting [Online Image]. Seven things you should know about orbea. Retrieved November 2020 from

<https://www.theprosclot.com/blogs/news/seven-things-you-should-know-about-orbea> Screenshot by author

Case 17: Personalization in Sports

Personalization and service innovation have been affecting the sports industry on a global scale in recent years. It has not been limited to specific teams or clubs but can be much rather seen as overarchingly influencing multiple sports teams and leagues. This overall service innovation topic is important for the performance side of sports and also for the service side, which is mostly relevant for fans. Sports, one of the most important things of all the least important things as Steve Gera puts it, it is all about personal stories and experiences. Through the usage of mobile devices and computing power sports, teams have been able to drive deep insights from data sets and subsequently disrupt the sports industry on various levels. The major paradigm shift, which has happened over the course of the last years, has been that sports changed from a 'one-to-many proposition' to a 'one-to-one proposition.' This shift has not only changed the approach for athletes but also for fans, which will be further discussed in the following part.

One part of sports where this has manifested itself during the last years has been the NBA. Whereas in the past a player was coached the same way as all the other players in the team, with the same tactics, nowadays this has massively changed. Nowadays, special coaches, e.g. movement coaches, are hired to train very specific skills for each individual player. Considering modern day salaries of athletes investing \$150,000 per year in individual training and performance improvements, it makes a whole lot of sense when contracting extensions, potentially worth millions, are at stake. Apps like HomeCourt, an AI company and mobile app, for example, track players' shots for basketball. The company U-Sports is giving personal insights into "your" shooting and "your" performance. The average NBA statistics used to be done on a team basis and were, therefore, very generic only tracking performance indicators like total points, total moves, total assists, rebounds, etc. None of these statistics gave away a contextual understanding of the game and none really provided the individual player with relevant information. Nowadays, companies like 2nd Spectrum take all human movement on the field into account and give players detailed insights into their behavior. Technology like this not only assists coaches but also pose potential benefits for fans in the long run. These advancements subsequently lead to more personalized treatment for all players.



Figure 11: A Rolls-Royce aircraft engine on a plane



Source: A Rolls-Royce aircraft engine on a plane [Online Image]. UK engine-maker Rolls-Royce cuts 9,000 jobs. Retrieved November 2020 from <https://asiatimes.com/2020/05/uk-engine-maker-rolls-royce-cuts-9000-jobs/> Screenshot by author

On the nutrition front, athletes were basically dependent on what their team cook prepared. This has changed dramatically as well. Companies like Oraco will evaluate your blood and a company like FitBiomix will give you exact information about your bacterial health. Most players would take food sensitivity tests in order to optimize nutritional input.

What is more, these trends are also translating into the fan space. Previously dependent on what aired on TV with the means of OTT and streaming services like ESPN+, Barça TV and the Zone fans can nowadays decide what and when to watch. Sports channels are also adding more and more context to aired games, which has been a feature required by many sports viewers. Recommendation engines like IrisTV, similar to Netflix and Youtube's engines, have also entered the sports space on the digital front.

On the physical front the stadium experience has undergone massive changes as well. While merchandise and concessions used to be pretty much the same for all fans, companies like Venuetize are revolutionizing this space. With the help of a mobile app,

users can order food, craft beer and personalized merchandise from their seat in the stadium. It is all about making the personal experience in the stadium more personalized.

Finally, personalization in sports still has massive potential, and the industry and clubs are ready to squeeze their fans' pockets and optimize and personalize wherever they can.

4.2.2 Findings. Service Innovation in Sports

Service innovation describes a new business model that many organizations and companies have been tapping into in recent years, by understanding the whole customer journey companies are able to adopt their services and fine-tune their offers. Service innovation's first goal is to create more value for customers through personalized and improved services. Moreover, the model seeks to create efficiency and new growth for the institution that provides it.

In the example of Barcelona's real estate project, BIHub and its partners were able to provide the construction site and all its stakeholders with 3D model software to help real estate agents and developers with ongoing support. Furthermore, through the use of AR an immersive experience was created for the new venue, which used to organize virtual walkthroughs as well as supporting architects and construction workers with real-time 3D models of the construction site, a perfect example for value creation on the customer side.

Not only has service innovation entered the sports industries, but it actually gained relevance in broader industries much earlier. High-tech companies like GE and Rolls Royce have rethought their approach in the business of airplane manufacturing many years ago. GE, having introduced sensory into their airplane engines, wondered at some point why planes featuring the exact same engines and similar load and usage were running way less efficient for their Arabic customers when compared to middle European customers. In the process of solving this mystery, they were able to discover that fine sand, found in North African countries, made their engines run slightly less efficient through increased friction. Incidents like these made them re-think their approach and actually kick-start the service innovation mantra. Instead of just focusing on selling engines, airplane manufactures are thinking about the whole process, context, and the environment in which their engines are used, the whole process of installation, maintenance, monitoring of performance, and all user-related topics that the airline thinks about in order to run their airplane engines safe and efficient throughout their lifetime were taking in-house. They moved to adding additional services, apart from just selling their main product in order to add value to their stakeholders, thereby creating a longer value stream for their business. Similar approaches can be found when looking at recent advancements with regard to personalization in sports.



The main mantra for service innovation is hereby that users often do not particularly care about the product as much as they care about the utility or final outcome that the product produces. Airplane manufactures like GE and RR have eventually evolved to selling performance-based contracts. Airlines are receiving the utility of the working engine without actually buying or owning the engine and without having to monitor the product. Companies are tuning into their customers and, more importantly, the full customer experience, in order to monitor all of their needs and provide a one-stop solution for all aspects related to the product. By dialing into their customers and addressing all commonly known pain-points in their user experience, these companies have managed to provide better products and higher satisfaction rates for their customers.



List of Acronyms and Abbreviations

AI	artificial intelligence
AR	augmented reality
BIHub	Barça Innovation Hub
FCB	Football Club Barcelona
FIFA	International Federation of Association Football
KPI	key performance indicators
MLB	Major League Baseball
ML BAM	Major League Baseball Advanced Media
MVP	minimum viable product
NBA	National Basketball Association
NFL	National Football League
NHL	National Hockey League
OTT	over-the-top
RTS	RealTrack Systems
WWE	World Wrestling Entertainment



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