Regional Sports Network Technology solution to improve viewer engagement and brand affinity among Major League Baseball viewers.

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Abstract

Major League Baseball has maintained a significant position in the professional sports landscape, while also adopting new opportunities to distribute their product using emerging technologies. Early streaming efforts improved access but maintained many limitations of linear broadcast technologies. As a result, fans, particularly young fans, have not grown into avid baseball lovers. Relationships with Regional Sports Networks are likely to have contributed to the problem, as media streaming rights account for significant MLB local and national revenue. While RSN relationships present an obstacle, they also create an opportunity to collaboratively shift the experience of watching a game from current linear methods to highly customized, engaging experiences. A technology solution, built and maintained by a third party, could be branded by any combination of the league, franchise, or regional network. As a result, RSN's, who fill the vital purpose of producing quality year-round content, maintain their role while evolving the fan experience.

State of the Industry

The professional Sports industry comprises sports teams and clubs that participate in live professional or semi-professional sporting events for profit (IBIS, 2020). In 2019 the industry reported revenue of \$38.8 billion, primarily from media rights and ticket sales. The four most popular spectator sports, the National Football League (NFL), National Basketball Association (NBA), National Hockey League (NHL), and Major League Baseball (MLB), account for nearly all industry revenue. The NFL is the United States' most popular sport, generating more than \$8 Billion in media revenue alone. Second only to football, MLB generated \$10.7 Billion in revenue during the 2019 season, showing consistent, steady gains over the previous 20 seasons (IBIS, 2020; Statista, 2020). Consequently, the value of an MLB team increased by 8% from 2018 to 2019. (Chart 1.)

Major league baseball (MLB) is a professional men's baseball league charged with the operation and management of 30 franchised locally owned teams in North America. Thirty teams, 15 operating in the American League (AL) and 15 in the National League (NL), represent the highest level of play and competition in the sport of baseball. Each league is divided equally into three divisions, East, Central, and West, creating six divisions of five teams each. Officially founded in 1903, professional baseball was first played in the United States in 1869.

Regular season structure

With 162 regular-season games per franchise, MLB has notably more events than comparable professional leagues operating in the United States and Canada. At the conclusion of the six-month regular season, ten teams qualify for the playoffs. The final two franchises, one representing the NL champion and the other the AL champion, participate in a seven-game world

MLB opportunity to utilize emerging technology to improve fan experience series to determine the overall champion. The regular MLB season runs March through September. Consequently, baseball is beginning its postseason while NHL, NFL, and NBA are entering preseason play. Baseball is the only major sport producing live content during summer months. Summertime exclusivity positions baseball as an essential product for sports networks.

MLB Broadcast Rights

International broadcast rights are relatively small at \$150 Million. Domestic MLB media rights are negotiated by the league. ESPN is the largest stakeholder with 90 regular-season, one wild-card, and rights to broadcast highlights. Fox broadcast package includes rights to 52 regular-season games, the All-Star Game, and the World Series. Turner Broadcasting holds the right to broadcast a single wild-card game, two division series matchups, and one league championship.

Relationship with Regional Sports Networks

Cable Networks in the United States offer premium content to providers who bundle networks together to create cable packages. Packages can vary from basic, limited to over-the-air networks, to the top tier, offering 550 or more channels. On average, households with a cable subscription receive access to 200 separate channels, of which they utilize an average of 17. Networks receive income from providers in the form of subscriber fees, which are paid as a fixed amount per household served by the provider.

Regional Sports Networks (RSN's) typically command between \$6 and \$12 monthly per subscriber (find citations). Live sports are critical to cable subscribers and remain one of the few

programming categories where viewers watch content live, with 79% of sports fans subscribing to pay-tv (chart. 2). Sports fans value live content, notably more than non-sports fans. They are least likely to cord-cut, with live sports as the sticky product for many families (Business Insider, 2020). Additionally, live events are premium to marketers, due to an increased likelihood of viewers watching commercials.

Local broadcast rights are negotiated at the franchise level, with many teams holding an ownership stake in their regional sports networks. By owning the Regional Sports Network, rights can be sold below market value, artificially reducing franchise income. Team revenue generated from supporting businesses, such as paid parking lots and media companies, are not subject to revenue-sharing and can be held in pass-through corporations. Locally negotiated media-rights contracts are estimated to account for \$1.8 Billion, slightly more than half, of the \$3.6 Billion annual media-rights revenue, with large market teams estimated to garner up to 12 times more than small-market teams. (Chart 3.)

In addition to linear broadcast, OTT streaming service DAZN launched in the U.S. market with an agreement to produce a live digital MLB show each weeknight during the season. Unlike traditional linear broadcast, the DAZN event switches between live games, showing viewers the significant plays and events in near real-time. Viewers are not watching a single game, rather bouncing between all competitions as they are played. MLB also has limited arrangements with social media platforms Twitter and Facebook.

Gate Revenue

MLB's franchise model relies on ticket sales to generate local revenue. League-wide, attendance has steadily declined over the previous ten seasons, yet ticketing income has grown (Chart 4.). Acknowledging the current 2020 season includes unique obstacles, gate revenues tend to remain relatively inelastic, with few replacement entertainment products. Ticket sales are a significant driver of revenue and profitability for MLB franchises, garnering \$2.86 Billion collectively in 2019 (Statista, 2020). Live event attendance is driven by fan avidity, but success, high profile athletes coupled with a large market, create ideal dynamics for ticket sales. Fan attendance, while inelastic, is impacted by the local divorce rate, regional discretionary income as well as time spent on leisure and sport. MLB franchises generate local revenue pre-, during and post-event in the form of paid parking, concessions, and merchandise sales. Parking and concessions are estimated to generate 10% of franchise revenue.

Sponsorship Licensing vulnerabilities

Sponsorship revenue is generated at the local and national level, with league level sponsorship proceeds distributed equally among franchises. Estimated to approach \$1 Billion, Companies such as Nike and New Era Cap Company provide MLB licensed apparel, available to fans and worn by players. MLB franchises generate notable advertising and licensing revenue in the form of stadium signage, jersey patches, and endorsements. Similar to gate revenue, sponsorship and advertising revenue are largely driven by per capita disposable income. Among the problems created by the current MLB franchise business model, is an unbalanced portfolio. All 3 noteworthy revenue sources are impacted by the same economic factors. As a result, a drop

MLB opportunity to utilize emerging technology to improve fan experience in discretionary spending can be catastrophic to already thin profit margins. Additionally, marketers, many of whom have long term relationships with teams, are increasingly shifting ad-spend away from linear broadcasting to digital mediums.

Dependant on RSN model

Baseball franchises are dependent on revenue generated through the sale of media rights. Regional Sports Networks, owners of those rights, are equally dependent on professional live sports for content. As a result, local and national revenues have grown steadily over the previous 10 years. This model, while historically profitable, positions baseball poorly for future growth.

Cable television subscriptions in the United States have steadily declined over the previous 5 years, a trend expected to continue (Statista(b), 2020). 8.1% of current cable subscribers surveyed report they intend to discontinue cable when live sports migrate to streaming platforms (Limelight, Statista, 2019). Live sports are a static product, produced by a team of media professionals, packaged and distributed to fans for consumption. Current linear TV does not allow for customization or modification by the viewer. 21st-century fans, particularly millennials, between 25 and 39 years old, are accustomed to modification.

Youth Sport Participation

Major League Baseball is the second largest sport by revenue, and third when ranked by youth sport participation (figure 2). Slightly less than 4 million kids aged 6-12 played baseball in 2017. Nearly 490 thousand high school athletes played baseball in the United States annually over the previous 10 years with little fluctuation. Interest in youth baseball has remained strong, but interest is not translating into young adult viewers.

Unmet Market Needs

An accepted narrative is that millennials, along with the younger Generation Z, (between 5 and 24 years old) are easily distracted and lack the attention span to consume a complete three-hour event. The length of an MLB broadcast, the slow pace of play, the large volume of regular-season games, and the limited screen time of star players all contribute to declining youth interest in major league baseball. These are all noteworthy concerns, but the conclusion young fans are distracted does not withstand critical review. 37% of surveyed Nielsen households report using a second device to look up information related to content while watching. 22% report engaging with social media related to content and 17% report texting, messaging, or chatting with friends about the content while they consume it. An astonishing 14% use their second device to shop for an advertised product (Meeker, 2020). Any belief that these fans are distracted is incorrect. Fans, particularly those younger than 40, are exceptionally engaged with media content. A fan chatting with friends about a game, researching team roster all while visiting the social media profile of the stadium sponsor is simultaneously consuming media through 4 separate channels. Modern young fans are notably more engaged than their parents and grandparents. The issue is not engagement. A fan researching a team has an appetite to learn about the organization. A fan chatting with friends during a live event is building connections and community within the brand. A fan investigating a sponsor is providing immediate value to both the partner and the team. Young fans are exceptionally engaged during live events. The current narrative is a hasty generalization, the issue is not attention spans nor is lack of interest. The unilateral style of sports consumption through linear television fails to meet demand. Young people are filling the gap by consuming content from outside organizations. The large volume of

MLB opportunity to utilize emerging technology to improve fan experience

media sources, many of which are privately produced and funded by fans, is compelling support

of large unmet market needs.

Summary

Among the problems created by MLB's strategy is a dependence on RSN relationships for media revenue. This model excludes fans as cable subscriptions are increasingly replaced by streaming services. Millennials are least likely to utilize cable and most likely to be early technology adopters. I was unable to find data to support the belief former youth athletes don't want to watch baseball as young adults. Instead, it appears interest wanes as a consequence of limited access. To remain relevant, Major league baseball needs to be deliberate and intentional about retaining youth fans. To win back lost fans, MLB needs to present a mobile option that enhances fan experiences. Current streaming options offered through Virtual Multichannel Video Programming Distributors (vMVPD) youtube, HULU, MLB.tv, and ESPN are simply second screens streaming the same broadcast product as cable. The inability to customize content limits engagement, while a single broadcast option fails to fill the unmet consumer identified demands.

Traditional fan engagement strategies are framed around brand affinity models. The brand affinity pyramid (figure 2) seeks to drive marketing through the concept of building lifetime loyal fans by measuring how the brand is perceived by the public. While linear brand affinity models hold value, they fail to acknowledge the behaviors that build emotional connections to a sport, league, or team.

Recommendation

I propose Major League Baseball, alongside franchise and regional sports network leadership, modernize the outdated 'sports on radio and television' model. Current streaming

MLB opportunity to utilize emerging technology to improve fan experience options are an improvement to the problem of access, but fail to exercise potential to meet additional unmet consumer demand.

Product Concept: A mobile software product that engages MLB consumers at all levels of brand affinity. The ideal product will provide opportunities for engagement expected to fill identified unmet demand, inviting behaviors to build lifetime fans.

Business Model: The product will be branded and marketed by MLB, individual franchisees, and regional sports networks. The intended outcome is to transition the RSN business model into a modern technology platform. As such, a licensing revenue model not only serves the intended MLB customer but also allows for further expansion into other sports.

Competitive landscape: Limited new competition exists for this product. The initial version of the service expands an offering that currently exists. Professional sports leagues face limited threats of new entrants, however, MLB has surrendered significant market share to Major League Soccer (MLS) over the previous 10 years. Additionally, e-sports have continued moving into mainstream sports industries.

Product pricing: Pricing is likely to vary by franchise and level of access. Additional versions, such as one designed to be used while at the venue, could be included with the purchase of a ticket. The product would likely be offered to fans at an annual rate comparable to other sport streaming services. Our product intends to improve fan relationships, connecting with the core offering; Baseball. The initial technology service is designed to focus on kids who are most likely to be connecting with the game as players. To be successful, the service will utilize existing technologies in a new and innovative way.

Recommender Systems

Recommender systems are core functionalities of many organizations utilizing technology to distribute a digital product. Also referred to as recommender engines, they predict the preference of a user, often resulting in a recommendation. Collaborative filtering produces recommendations based on users' past behaviors or behaviors of similar customers. The most frequent applications are online retailers who may suggest an item to a customer because users with a similar shopping history (called neighbors) purchased the item. Additionally, music streaming services may recommend an artist because they are similar to bands the user rated highly in the past. Commercial applications tend to focus on increasing consumer consumption of a good. However, I suspect out of the box solutions could be adapted to increase the quality of user experiences. Instead of recommending content based on similar purchase patterns, content would be recommended based on the current game dynamics and fan knowledge of the game. For example, a division I college catcher may receive recommendations related to pitch selection, while a high schooler playing the same position would receive a graphic explaining ideal ways to block wild pitches. Using recommender systems, the service is infinitely customizable, drawing from every measurable game dynamic and collectible user data. Success will require a hybrid system with access to a comprehensive user profile. The intent of recommendations based on in-game strategy is specific to players whose affinity is deepened as they continue to grow. For non-athletes, perhaps a casual fan, the recommender system would seek to identify the level of sophistication appropriate, but also the type of information they might find interesting. A casual fan may have participated in little league and followed their local franchise in playoff years but does not know the history of the team. This fan might receive

human interest stories about retired players or trivial centered around team records. The goal is to engage users in behaviors that build a connection to the core product, baseball.

Baseball is America's pastime and deserves to be enjoyed by fans of all ages, abilities, and levels of commitment to the game. The current business structure positions the league to lose more fans than it gains in the coming years. While youth participation has remained high, participation has not resulted in becoming fans as young adults. Customized and engaging technologies are not available to fans, and their attention has been directed to other sports. Building a mobile application that evolves past the current streaming experience will allow baseball leadership to retain young fans while attempting to earn back lost former fans. Future versions of the product will target additional groups who are not well served by the current fan experience. App users will have the ability to utilize our technology anywhere they have service, including when they are at the live event. The intention is to answer the customer call for increased access to engaging content, driving the experiences that build lifetime fans.

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Tables

Table 1

Youth Sport Core Participation

SPORT	2008	2010	2012	2013	2014	2015	2016	2017	2018	2016-17 Change	# Kids (2017)	2017-18 Change	# KIDS (2018)
Baseball	16.50%	14.10%	12.50%	14.20%	12.90%	13.20%	12.70%	13.10%	13.60%	3.60%	3,936,251		4,100,000
Basketball	16.60%	15.30%	14.10%	16.00%	14.70%	14.70%	14.00%	14.10%	14.10%	0.90%	4,225,321	-0.30%	4,200,000
Bicycling	27.70%	25.00%	20.70%	19.80%	18.70%	17.30%	16.60%	16.00%	15.70%	-3.70%	4,796,374	-2.20%	4,700,000
Cheerleading				1.80%				2.20%	2.60%				775,000
Field Hockey				0.60%				0.40%	0.40%			-7.80%	118,000
Flag Football	4.50%	3.00%	2.80%	2.80%	2.40%	2.60%	3.00%	3.30%	3.30%	9.90%	988,260	-0.30%	989,000
Golf	5.00%			4.90%				4.90%	4.90%			0.00%	1,400,000
Gymnastics	2.30%	2.80%	3.50%	2.90%	3.00%	2.70%	3.00%	3.10%	3.40%	4.70%	932,605		1,000,000
Ice Hockey	0.50%	0.70%	0.80%	1.10%	1.10%	1.10%	1.10%	1.20%	1.10%	10.00%	368,034	-12.30%	324,000
Lacrosse	0.40%	0.60%	0.70%	0.80%	0.90%	0.70%	0.90%	0.90%	1.00%	7.90%	281,726		296,000
Soccer (Outdoor)	10.40%	10.90%	9.20%	9.30%	9.10%	8.90%	8.50%	7.70%	7.40%	-9.50%	2,300,704	-3.30%	2,200,000
Softball (Fast-Pitch)	1.00%	0.80%	1.50%	1.10%	1.20%	1.20%	1.10%	1.10%	1.20%	2.00%	340,863		359,000
Swimming (Team)			1.50%	1.60%	1.60%	1.40%	1.50%	1.40%	1.40%	-5.70%	409,624		417,000
Tackle Football	3.70%	3.80%	3.60%	3.50%	3.30%	3.30%	3.30%	2.90%	2.80%	-11.80%	871,465	-4.00%	839,000
Tennis		4.00%	4.00%	4.10%	3.70%	3.90%	4.40%	4.10%	4.30%	-5.50%	1,232,902	5.10%	1,300,000
Track & Field	1.00%	1.20%	1.70%	1.10%	1.20%	1.00%	1.00%	1.10%	1.00%	9.60%	340,279	-10.00%	307,000
Volleyball (Court)	2.90%	2.60%	2.40%	2.70%	2.80%	2.50%	2.50%	2.70%	2.80%	7.20%	799,600		846,000
Wrestling	1.10%	1.10%	0.80%	0.70%	0.60%	0.70%	0.60%	0.60%	0.70%	0.20%	190,094		218,000

Table 1: These charts and tables demonstrate the percentage of kids who participate in given youth sports by year. Data was collected from 2018 and 2019 youth state of play.

Figures

Chart 1

MLB Average Franchise value

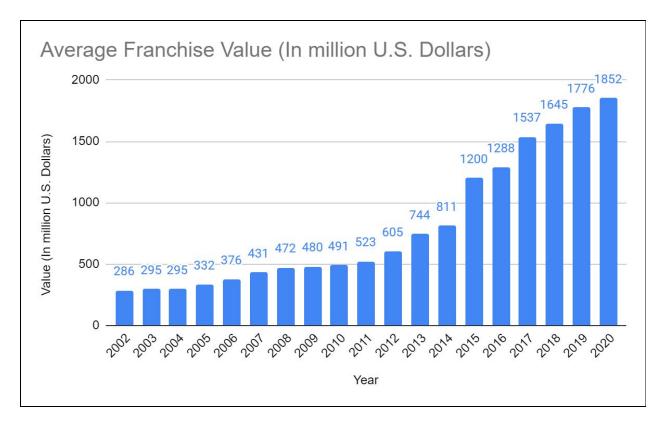


Chart 1: This graph depicts the average franchise value of Major League Baseball franchises from 2002 to 2020. As reported by Forbes and Statista.

Chart 2.

Cable behaviors of sport viewers against non-sport viewers

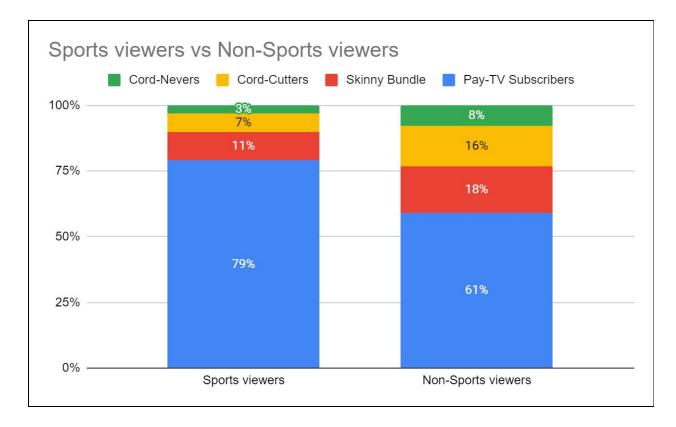


Chart 2: This chart breaks down video subscription status among regular sport viewers and non-regular sport viewers as reported by Business Insider Intelligence, Sept 2019. Sport viewers included respondents who watch sports on a daily, weekly or monthly basis. Survey completed August 2019.

Chart 3.

Franchise specific revenue against RSN ownership

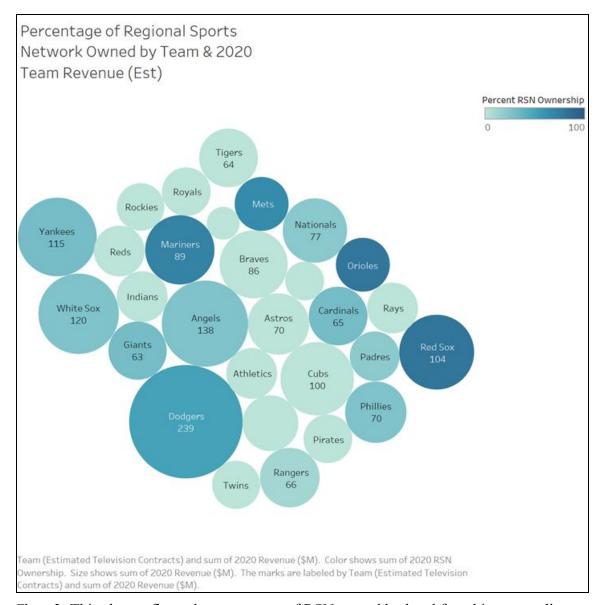


Chart 3: This chart reflects the percentage of RSN owned by local franchises as well as team revenue. Data was compiled from a myriad of sources.

U.S. Consumer response to when they will cancel cable

Chart 4

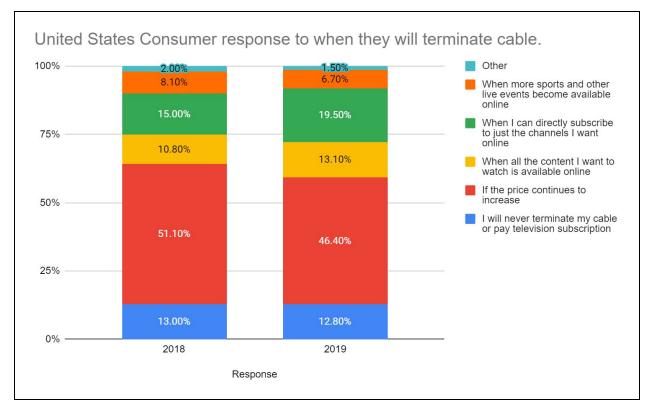


Chart 4: This chart reflects consumer sentiment when asked when they will terminate cable. Data collected by Limelight Networks, distributed by Statista 2019.

Chart 5

Youth core participation in baseball

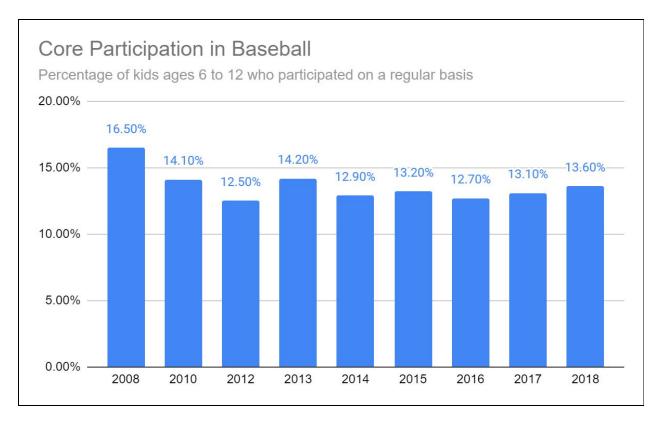


Chart 5: These charts and tables demonstrate the percentage of kids who participate in given youth sports by year. Data was collected from 2018 and 2019 youth state of play.