Chapter 8

Sport Data Analytics and Social Media: A Process of Digital Transformation

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Abstract

This chapter reviews the growth of data analytics in sport by taking a social media perspective. There has been an emphasis on the use of real-time statistics by sport organizations in order to increase their performance in the marketplace. This has been made possible by increased emphasis on technological innovations that enable data analytics to be conducted. The current developments and areas of application to the sport industry are stated and prospects for future advancement noted. This includes a focus on emerging trends in artificial intelligence and social media marketing. A concluding section focusing on the implications of current research and practice stresses the need for more novel approaches to be used.

Keywords: Artificial intelligence; business analytics; digital; future developments; marketing; real time; social media; statistical modeling

Introduction

The era of digitalization has significantly changed the way businesses operate in the global marketplace. Sport organizations are increasingly reliant of digital technologies to guide decisions. This is due to increased usage of big data and statistical modeling by sport organizations as a way to stay competitive. In order to adapt to technological innovations, sport organizations need to be agile and flexible. This enables them to change their current practices in order to increase performance. By having reliable analytical insights, there can be a more detailed understanding of performance implications than was evident in the past.

Big data analytics in sport are an important source of information and knowledge to the sport industry. The popularity of social media and mobile commerce has led to the advent of an era focused on mining data in order to obtain behavioral patterns. The proliferation of data available on sport provides
an opportunity for sport practitioners to focus on more niche markets that can derive increased profitability. For researchers, the massive amount of data on sport means there is a constant and daily source of information. This is the result of the data generated from social media platforms providing a way to obtain real-time and geographic specific information. This enormous volume of data needs to be intensively studied in order to find out ways to use it. Some data has a higher quality than other data due to the information it contains, which means conducting social media analytics is important in order to find out trends.

As smart machines grow in quantity, sport organizations will become more data enabled. Smart sport organizations are those making use of cloud computing and the Internet of things, and they go beyond merely using technology to making it an integral part of the business management practices. This means data about time, location, and context are collected that help inform decisions (Buhalis & Leung, 2018). Increasingly sport organizations are becoming aware of how the context influences performance. This is due to real-time events affecting the adoption rate of new innovations (Levesque & Stephan, 2020).

The integration of big data into sport management practices is due to a number of push and pull factors. The pull factors involve issues mostly related to business concerns such as increasing efficiency and obtaining better management support. Big data can enable information to be obtained about production systems that leads to lower prices (Liebowitz, 2005). However, big data is still data, so it needs to be analyzed in order to understand its value. There are a number of ways to understand the role of big data in business from capturing information, storing knowledge to then providing analytics services. To capture data, there needs to be ways to gather information from different sources, which involves having a sense of purpose in terms of why acquiring the data is important. This includes having a goal of what to do with the data after it has been collected. Data can come from a variety of sources, so it is useful to prioritize where the most useful data will be obtained. This involves assessing the type of data required in order to make good decisions. Some data is more valuable than other types due to its ability to provide information about current sport practices. The quality of the data means that it can be analyzed in a more intricate format in order to obtain new knowledge. Data storage involves keeping data in a physical or virtual format for future usages.

The increased computing storage capability means that data can now be stored for longer period of times. In the past, data tended to be discarded as it was viewed as not being relevant for future usages. This has changed with the need for longitudinal data that can help understand patterns of behavior. The easier way to store data has meant that it can be compared and contrasted to previous data. Large cloud computing centers now have vast amounts of data that can be accessed from multiple technology devices at any geographic location. This has increased access to data and made it easier for sport organizations to retrieve data. Data can be transferred through different communication mechanisms, which has increased its usability in the marketplace. The power of data is in its content, so it is useful to know why the data is being transferred. Some data is in a basic format so it needs to be transformed into statistical outputs. This process is
referred to as data analytics as it gathers information and then processes it in order to derive statistics.

Increasingly sport organizations are seeking ways to best use data analytics (Miranda, Chamorro, Rubio, & Rodriguez, 2014). There are many benefits of social media due to the way the sport industry has dramatically changed over the past decade. There has been a growth of usage of social media in sport among athletes, teams, and fans. This has been combined with an increase in corporate involvement in sport in terms of marketing, social responsibility, and data analytics.

**Data Analytics**

Ward, Runcie, and Morris (2019) suggests that sport scientists can provide a business intelligence service by collecting data, analyzing data and then communicating it to different people within a sport organization. The data collection process is important as it enables different types of information to be collected. There is an ever-expanding array of information available on sport, so choosing the right data to analyze is important. Data is constantly being accumulated in a sport organization, and there are now more computing programs designed to specifically gather information. The vast amount of data available means it is important to consider what type of information is most relevant. This includes focusing on the content of the information to see how relevant it is.

The timeliness of having access to the right kind of information is important for sport organizations. Cloud computing and big data analytics have meant there are now better ways for sport organizations to store information. This enables sport organizations to learn from the past while looking to the future. However, there is a risk of some data being overlooked despite it being valuable. For this reason, it is crucial that sport scientists have the ability to recognize useful information. To do this it might be helpful to prevent data silos by having a more integrated data management system in place. This enables a more holistic analysis of the data from multiple viewpoints. Different people in a sport organization such as athletes, managers, and accountants might interpret the data in a different way. This means that some data such as player performance might be more helpful to coaches while physiological tracking can be more useful to athletes. Thus, there needs to be some kind of strategy in place to focus on who needs the data and what kind of data they need.

There also needs to be a rigorous data collection process in order to capture data in an efficient manner. This includes considering the cost of the data collection. Some data might be easier to obtain while other forms of data might be harder to capture. Thus, a risk/benefit analysis should be conducted in order to properly assess the data. This includes focusing on data privacy and confidentiality, which are important in today’s knowledge society. It can be hard to assess though whether data is private as informed consent is needed in many situations. Also, the type of data and the information it contains might be of a
sensitive nature. Therefore, it might be useful to know how and in what context
the data was collected.

The second step involves analyzing the data to see what kind of information it
contains. This analysis procedure has become more complex due to increased
computing powers. Data can now be analyzed in many different ways according
to the user’s needs. Once the data has been analyzed, it can provide useful
information about patterns and trends that were previously unknown. Sport
organizations are making more decisions based on data analytics. This is due to
the way data can help improve current performance. The analysis procedure can
be fast or slow depending on how important the data is to a sport organization.
Longitudinal data analysis is also being undertaken in order to take into account
time differences. This can be useful for sport organizations wanting to see patterns
over a longer time period.

Data analytics can be represented by statistics in picture or tabular format. It
can also be helpful to compare the data with other sources of information. As
there are now increased computing powers used in data analytics some of the
statistical outputs might be hard to understand. This is why data scientists are
being used by sport organizations to interpret the information. After the data has
been analyzed, it can enable key strategic decisions to be made. Depending on the
frequency of the data analysis, sport organizations can make decisions at various
intervals of the playing season or at specific times of the year. Increasingly more
sport organizations have a data analytics mindset that enables them to obtain and
analyze constant flows of information.

The third stage involves communicating the data analysis to others. In a sport
organization there are different people that the information needs to be conveyed
to. The way the data is discussed will depend on the needs of the particular person
in a sports organization. Coaches will want information about specific players in
terms of their performance in order to help them improve. Physiotherapists may
want data about health-related issues, which make it easier to treat athletes. Sport
managers on the other hand will need financial data in order to assess their club’s
performance. Therefore, when communicating data, it needs to be in the format
required by the recipient. To do this can be a tricky task due to the complexities of
the people involved. This has meant data visualization charts are used as a way of
communicating information in an easier way.

Business intelligence software that enables forecasts about future events is
useful. As the data analyzed can be hard to interpret, it is useful if it is then broken
down into smaller fragments. This will help individuals understand what the data
means and how to use it in a sport context. Depending on how the data has been
analyzed, there can be specific ways for it to be interpreted based on the context.
For example, specific sports such as tennis can have data about ball speeds that
can then be shown on computer screens. This helps people to see how fast the
tennis ball travels and its trajectory. Data can also be analyzed at different time
periods to see if there are any changes. This helps provide coaches with ways of
further refining player styles. In addition, this interaction and feedback can lead to
a more holistic understanding of the data. The way data is interpreted has also
changed from past procedures of having rigid tables and charts to a more
interactive format. This enables people to test the data in order to understand it. Moreover, data analysis procedures can now enable an intuitive analysis of the data due to increased computing powers that is a result of artificial intelligence to predict events is being used. This has occurred with virtual reality, which involves creating simulations in immerse environments. However, with all data the statistics may not always imply causality so the data needs to be triangulated with other sources. This means data analysts also taking with the people who collected the data in order to see if there are any environmental factors that need to be considered. This requires interpersonal communication and a need to develop good working relationships. Over time this will lead to more detailed sources of data and more intricate data analysis. However, to fully capture all environmental factors in the data there needs to be some comparison of the data to other sources. This means keeping an open mind as to what the data means.

The fourth stage is the decision process that involves deciding what to do with the data. This can be difficult due to most sport data scientists wanting to make the right decision. It is useful to think about different ways to interpret the data in order to make the right decisions. This includes assessing the ramifications of making a specific decision. While deciding on a course of action can be difficult, it is important to use available information in a timely manner. This includes communicating decisions and the reasons for particular courses of action. In sport organizations, being competitive is of paramount concern so it is important to constantly improve. To do this sport organizations should aspire to make the best use of data analytics such as using machine learning in order to understand the data. Sport organizations need to also recognize that some decisions need to be reassessed depending on the ability of an organization to make the required changes. By being proactive and positive about change there can be a better outcome for all organizational members and their stakeholders. To do this a checklist can be helpful in order to assess each cause of action. In addition, the reasons and future avenues coming from decisions need to be stated.

The fifth stage is the decision audit, which involves analyzing how the actions have affected an organization. This means tracking the performance to see if it has improved. Feedback mechanisms can be part of this process and can help understand from multiple perspectives the effects of a decision. If the decision considered was not a good one, then new decisions can be made to readdress the errors. This includes making more informed decisions or being flexible with the decisions made. This can involve some uncertainty as data is reanalyzed and new courses of action taken. The ultimate success of the data analysis procedure will be on whether meaningful change has occurred.

Social Media

Social media enables a wide variety of feedback that presents a way for sport organizations to learn more about their customers. During interactions on social media, sport organizations can learn more about how consumers respond and their thoughts about new product development. These customer-gained insights
provide a way to understand what future innovations might be more worthy to invest in. Coupled with data from other sources, sport organizations can then examine the potential viability of future innovations. This will leverage existing social media data with emerging technologies in order to allow sport entrepreneurship to be better understood.

Socially orientated media theory is defined as media theory that focuses on “how media are put to use in, and help shape, social life and how the meanings circulated through media have social consequences” (Chen, 2018, p. 23). This theory is useful in a sport context due to the high usage of social media. Increasingly more people are using social media across a range of contexts and situations. Social media in sport conveys directly what people or organizations want to share. This includes news and information that helps increase an individual or organizations social presence in society.

Normally the positive benefits of social media usage are highlighted by companies providing these services due to the marketing and advertising revenue they receive. However, there are also negative results of social media usage including unfair comparisons and excessive usage. Xu and Saxton (2019, p. 30) states “social media represents a new medium for stakeholder relationship building, offering a relatively low-cost option for interactive two-way communication with large and geographically dispersed audiences.” For social media to work properly, it requires individuals to read and post messages. This can be conducted via visual messages such as photos or videos or via written words. The challenge for social media channels is to provide relevant content that enables the building of an online community. Social media can enhance the visibility of an organization when used in the right way. Organizations are trying to maintain and increase their reputation in the marketplace by using social media. This includes fostering dialogue between the organization and its stakeholders including suppliers and customers.

Organizations particularly nonprofit ones are evaluated by their financial performance but also level of social and community engagement. Social media is a relatively inexpensive marketing medium that is easy to use. Sport organizations are taking advantage of social media by joining broader issue conversations related to the environmental and social responsibility. In addition, sport organizations in their social media posts are using hashtags in order for their messages to be seen on other social media feeds. This helps sport organizations create a more strategically relevant social network. In order to fully realize the potential of social media it needs to be used in conjunction with other marketing channels such as word of mouth and face-to-face communication.

On social media, specific people are referred to as influencers due to their ability to influence others. Most influencers are paid to promote specific products or services. There are different types of influencers that include celebrities who utilize their brand name on social media. However, a number of influencers have made their names and reputation on social media due to the social content they post. This has revolutionized the global economy as micro or niche influencers gain followers. Social media platforms can range from globally known sites such as Instagram to more local and culturally relevant ones.
The digitalization of the economy has changed the way customers interact with companies. Due to the usage of online communication, customers are now part of the cocreation process as they provide feedback and interact with customers. This is different from previous communications in which customers received information but did not feedback suggestions. The coinnovating approach that is taken by companies now enables customers to more actively engage in the design process.

E-brand equity can be conceptualized in terms of brand awareness and brand activity (Le, Tran, Pham, & Tran, 2018). Brand awareness refers to how knowledgeable an individual is about a brand. Some brands have more recognition in the marketplace due to the ability of individuals to recall their name because of social media. The recognition of a brand may be further affected by the usage of symbols or pictures on social media. Brands that are more familiar to consumers tend to have recognizable logos. This enables a brand to stand out in the marketplace. Brand activity refers to the way a brand is used in a variety of contexts including shopping online and in physical stores.

The practice of sport has always been subjected to change but the scale of change has been more intense with technological innovation. Current technological changes have made sport management more challenging and caused the industry to have disruptive changes in all aspects of sport. Thus, it is critical to comprehend how to utilize technological change in order to prosper. The concept of smartness is used a lot in the tourism literature due to the need to understand how technology is integrated into society. Boes, Buhalis, and Inversini (2016, p. 108) states “initially the concept was coined as a complex technological infrastructure, embedded within urban areas to foster economic, social and environmental prosperity.” The concept is useful in a sport context due to the increased usage of information communication and technology.

Contemporary sport management requires a tremendous amount of data from cost analysis, marketing statistics to revenue history. Data can come from internal or external sources. Rezaei, Chiew, and Lee (2014) suggested that there are four main levels of e-business interoperability: data, knowledge, cloud, and ecosystems. Each of these levels incorporates different functions that are essential to the effective management of an online business. Table 8.1 below states some ways of engaging in cocreation behavior as a result of technology interaction.

Increasingly, SoCoMo marketing is used as a way to engage in real time with consumers in terms of their produce and service preferences. SoCoMo marketing refers to “marketing that is based on social media and personalization, that is context-based and uses mobile devices” (Buhalis & Foerste, 2015, p. 151). This has revolutionized the sport industry by enabling more defined marketing communications to take place. In the past, sport organizations did not have the technological capabilities to target specific customers, but this has not changed with new technological innovations entering the marketplace. There has also been an increased usage of context with social media marketing to further define core markets. Buhalis and Foerste (2015, p. 151) states “context-based marketing dynamically engages the physical environment of users by co-creating their
experiences based on the optimization of external and internal conditions. This helps produce more specific interactions with intended consumers on a real-time basis.

Social media means there is more dialogue and discussion among entities in a community. This is due to social media involving “activities, practices, and behaviors among communities of people who gather online to share information, knowledge and opinions using conversational media” (Brake & Safko, 2009, p. 6). This helps to create a sense of belonging but at the same time there can be harmful effects in terms of negative conversations. For this reason, it is important to understand the context from which social media emerges. This includes understanding the behavior of consumers and how they can influence brands in the marketplace. Conversational media are defined as “web-based applications that make it possible to create and easily transmit content in the form of words, pictures, videos and audios” (Brake & Safko, 2009, p. 6). Increasingly more sport organizations are using conversational media as a form of value creation with a service-dominant logic perspective. This is due to service-dominant logic suggesting that “value is always co-created through an interaction of resources and

Table 8.1. Ways of Engaging in Sport Cocreation Behavior.

<table>
<thead>
<tr>
<th>Advocacy</th>
<th>Information dissemination</th>
<th>Helping</th>
<th>Solidarity</th>
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<tbody>
<tr>
<td>Saying positive things about sport organizations or events.</td>
<td>Providing feedback about sport services.</td>
<td>Assisting other sport organizations if they need help.</td>
<td>Feeling part of the sport community.</td>
</tr>
<tr>
<td>Recommending sport providers to others.</td>
<td>Letting others know about sport events.</td>
<td>Trying to solve problems and create solutions.</td>
<td>Be willing to wait for change.</td>
</tr>
<tr>
<td>Encouraging others to purchase sport products.</td>
<td>Investing ideas for sport services then sharing them with others.</td>
<td>Teaching and educating others about sport.</td>
<td>Feeling like they belong to the sport community.</td>
</tr>
<tr>
<td></td>
<td>Commenting on sport products.</td>
<td>Giving advice about sport.</td>
<td>Being prepared to change.</td>
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<td></td>
<td>Assisting others to develop sport ventures.</td>
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an application of competences between the providers and the beneficiaries” (Buhalis & Foerste, 2015, p. 153). Thus, the service-dominant logic perspective provides a new way to understand the marketing relationship between consumers and service providers.

Social media is infiltrating people’s lives and is a source of information about what products or services to buy. To fully understand the value of social media, it is useful to focus on the context. This means analyzing social media postings in terms of their content. To do this can be a challenge due to the constant stream of information posted on social media (Oliveira & Panyik, 2015). Customers are becoming more involved in new service development due to their willingness to engage in the cocreation process. There are different strategies in terms of how sport organizations use social media. Most types of sport organizations regardless of whether they are amateur or professional will use some form of social media. The consistent use of social media is a way for sport organizations to build their brand name in the marketplace and utilize statistical analysis techniques.

Bridging the Theory and Practice Gap

Most research in sport using a statistics methodology uses significance tests to analyze hypothesis. Scott (2011, p. 24) states “standard statistical procedures such as significance tests, regression and the analysis of variance all assume the independence of observations, and this assumption does not accord with typical network data.” This has limited the novelty of statistical methods and relied on past techniques. There is a tendency to take the same approach used by previous researchers as a way of conforming to standards. This enables research to be compared, but it also limits new ways of thinking.

Research has used cross-sectional studies that test phenomena at a certain time period. This is done due to time and resource constraints. In real life, the constructs tested in statistical modeling programs are also influenced by other environmental variables. While moderation and mediation have been used to analyze these effects, it is still hard in a statistical way to pick up environmental factors. Panel data that takes a longitudinal approach to data is being used as a way to include time differences.

There is a lot of theory about data analytics, but it needs to be applied specifically to the sport context. Much of the existing theory on data analytics takes a general approach without considering the peculiarities of the sport industry. Thus, a challenge for the sport industry is to make analytics more industry focused and take into account specific statistics relevant for their industry. While it may be useful to have a general analytics approach, there is an emotional attachment many people have to sport, which can impact on how data is interpreted. Sport has always used numbers but in different ways from assigning them to designate players to keeping score during a game. However, in recent years the use of numbers has gotten increasingly sophisticated with the advent of complex computing programs. This has opened up the door for new ways of using members in sport that were previously not considered as feasible. Statistics
involves trying to find patterns in numbers and some people prefer to analyze and predict these numbers than playing sport. Sport betting has become a large global business that emphasizes statistics and the use of probabilities to predict sport events. Thus, statistics can be considered from the sport fan player or organizational perspective.

Sport fans are using statistics in both the physical and online environment to analyze performance. The physical environment involves the actual physical playing of sport in the traditional sense. However, the physical activity of sport now is linked to the online environment as technology devices are being also used to monitor performance. This makes it confusing in terms of understanding the dynamics of sport due to the way the physical and online environment is merging. Sport is becoming more linked to technology as it enables better monitoring of games. Buhals and Sinarta (2019) suggest there are internal and external enablers of real-time service encounters. The internal enablers include creative content, employee empowerment, and operational flexibility. Creative content involves innovative designs that capture current trends. These forms of content are normally visually attractive and attract the attention of consumers. Sometimes the visual aids are in digital formats in order to create more online content. This enables more interactivity between the content provider and the perspective customer. Empowerment refers to the confidence an individual has in their ability to make a difference in society. In order to do this, people need to feel a sense of purpose and that what they are doing will benefit others. By empowering others it can help disseminate information about new products and services. Having current access to information is important in making good decisions. Other behavioral traits associated with being empowered are having a sense of empathy and understanding the needs of others. This requires detailed knowledge about what people consider as important in their lives. It helps if people are approachable and personable in terms of the information they provide. Operational flexibility involves understanding how businesses can adapt to suit emerging trends. This flexibility is important in the knowledge economy where time can be used strategically by companies. Having a set of tactics about what to do with new information is important for the competitiveness of companies. By being responsive to changes in the business environment it can help companies compete better. External enablers include technology, monitoring tools and data relevancy. Technology involves both online and offline formats that lead to increased efficiency levels. In order to utilize data in the best possible way it needs to be monitored in an efficient manner. This helps make the data more relevant for sport organizations.

Implications for Practice

In order to advance the practice of statistical modeling and data analytics in sport, there needs to be more transparency about its meaning. While the use of data in sports is common, there is less clarity about the nature of statistics and analytics. Thus, the sport industry and academia need to join forces in order to standardize
the terms. This will broaden the scope of potential ways data analytics can be used in sport. The emphasis on big data has distracted in a way from the other ways data can be used in sport.

As the use of data analytics in sport becomes more prevalent, there are numerous ethical challenges associated with its usage. This means more relevant research is required from a longitudinal perspective examining how the usage of data has changed over the years. As a lot of data is collected without people knowing about it, there are some ethical issues about this process. The main ethical concern is around the content of the data and whether individuals want this information disclosed to others. Some data is personal in nature and of a sensitive nature. This means that the data when analyzed in the appropriate manner can provide useful information. For sport organizations, any kind of data that helps them improve their performance is relevant. Data can take a variety of different forms and is increasingly becoming more complex to interpret. This comes from the physical and online environments becoming interwoven. Sport fans attend games in person but also use mobile communication to find out information. This means sport organizations need to consider data from both sources and also consider temporal affects. Thus, the time and source of data needs to be put into context. To do this requires multiple sources of information, which can be hard to obtain. In the past much data was just collected from one source without considering other factors. This meant a reliance on an interpretation that depended on the interests of the data analyst. In the past it was considered okay to ask questions about certain topics, but some of these questions are now inappropriate or not relevant. This has resulted in increased tracking of sport fans in different ways from where they sit at games to the times of the day when they access websites. Data about sport fan usage and behavior can be used in different ways including to refocus marketing efforts. New communication mediums such as social media have transformed the way people view sport. There is more information about sport as a result of social media, and this has made it easier to communicate directly with fans.

Privacy has become a popular media topic due to increased interests about citizen rights in the new digital economy. This comes from the amount of data being collected and how with better computing facilitates it is easier to analyze this data. Many individuals inadvertently share information without expressing consent. There is a need to use technology, but at the same time there is a risk that the data obtained can be used for other purposes. There is a risk that there is too much emphasis on complex data analytics rather than looking at simple ways to analyze data. The perception that more complex data is better is not necessarily correct and can lead to an overreliance on computing machines. There can be a simple way to understand data that not always needs computers but rather relies on the experience of an individual to interpret it. Sport organizations are enamored with data analytics due to their hope that data management processes will allow for the creation of innovation. By applying data analytics to knowledge management it can improve business processes. This is useful for building better customer and stakeholder relationship management techniques. Sport
organizations can take the lessons learned from data analytics and extend this information in other ways.

**Major Challenges and Solutions**

While there is much excitement about what statistical modeling and data analytics brings to the sport industry, there are still many challenges remaining. This comes from a lack of understanding about current statistical methods and how to utilize them in a sport context. For mathematicians and statisticians the use of numbers comes easily, but for others it is a long journey to understand how and why numbers matter. More user-friendly computer programs have somewhat helped in this regard as it has made it easier for people with not much statistical training to input and analyze data. In addition, more sport organizations are including data analysts in their teams as a way to help utilize statistic and the information data contains. Thus, while there are immense benefits to utilizing more statistics and data analytics, care must be taken to do this in the correct manner. For this reason, I suggest below a number of challenges but also solutions about what is needed in sport statistics and analytics.

Advances in artificial intelligence are occurring at a rapid pace particularly with regards to machine learning. This will impact the way sport organizations utilize data analytics. In the future, it will be possible for machines to do analytics in a different way by predicting future occurrences. This will make it possible for sport managers to analyze data in a different way. By having a more interactive approach, sport managers will be able to capitalize on the way artificial intelligence can compute then predict events. Due to the competitive nature of the sport industry, this will help sport managers have a distinctive advantage in the marketplace.

Sport organizations are sensitive to the events in the external environment that can impact business practices. Analytics are a way to analyze and gauge events occurring in the external environment in order to understand their impact. Data analytics plays a central role in determining sport organizations responses to external events and plans of action. Data analytics can provide real-time responses to events in a way that is objective. Human responses tend to have more emotional responses that are linked to different thoughts and feelings. Thus, computers can provide a more rational way to analyze events. However, humans still have important abilities such as intuition that is difficult to replicate in a computer. This means predictive analytics while based on science also needs human interaction to analyze its projections. Learning and memory are key human functions that are also useful for data analytics.

**Conclusion**

This chapter has discussed the importance of taking a more data analytics perspective to sport entrepreneurship. This helps incorporate more usage of emerging technology platforms such as the Internet of things and smart systems.
The importance of using social media through statistical techniques was highlighted. This enables more specific information about real-time processes that help sport organizations succeed in the global marketplace.

References


