

Sport innovation management: towards a research agenda

Vanessa Ratten*

*Department of Management and Marketing, La Trobe Business School, La Trobe University,
Plenty Drive, Bundoora, Melbourne, Victoria, 3086, Australia*

(Received 16 September 2016; accepted 28 September 2016)

There is a large body of knowledge about innovation management but less is known from a specific sport perspective. This is unusual as sport management has an abundance of innovation due to its emphasis on technology and change. The aim of this paper is to bring together the fields of innovation management and sport management by proposing a research agenda focusing specifically on sport innovation management. This will help to bridge the gap between sport and innovation studies by suggesting future research directions and managerial implications.

Keywords: sport; sport innovation; sport management; innovation; innovation management

Introduction

Sport is a global industry affecting many other sectors of the economy through its own traditions and links to the community. There are tacit and unwritten rules about sport that make it different from other industry segments. This is evident in sport products and services having unique attributes that necessitate a distinct management approach, which combines commercial applications and social needs (Baker, McDonald, & Funk, 2016). As a discipline, sport management is still in its infancy but has grown in scholarship and significance in conjunction with sports' integral role in society (Peachey, Borland, Lobpries, & Cohen, 2015). Increasingly, sport is viewed as a multidisciplinary field that includes various sub-disciplines such as “marketing, finance, legal aspects, governance, communication, organizational behaviour and theory, sport for development, tourism, facility management and event management” (Abeza, O'Reilly, Seguin, & Nzindukiyimana, 2015, p. 602). Despite sport having a multidisciplinary approach there has been little written from an innovation management perspective, which is the reason for this paper.

Given the amount of innovation that occurs in the sport industry it is interesting that there still is a lack of research about this topic. Sport is big business that is constantly innovating due to both economic and societal pressures to incorporate new ideas and management practices (Hoerber & Hoerber, 2012). Despite the significance of innovation to sport there is a lack of studies incorporating an innovation perspective. In this paper, the importance of integrating an innovation management view into the sport industry is explained as a way of progressing the field. This also supports the assertion that innovation management needs to adapt to a sports context.

*Email: v.ratten@latrobe.edu.au

There is not yet a coherent body of literature about the role of innovation in sport despite the innovative behaviours of many sport teams and athletes. Innovation management in sport differs from other contexts due to the emotional and psychological attachment both individuals and businesses have towards sport. This includes sport having a global appeal that transcends language and geographical boundaries, unlike other businesses and industries. Sport is also complex due to the distinct local varieties of sport played in certain geographical regions, in addition to the more general forms of sport played around the world. For these reasons, it is important for scholars to pay more attention to innovation management in a sport context due to the role innovation has in business growth and survival. In addition, innovation management scholars have focused more on the processes and types of innovation rather than its role in a sport context. This demonstrates a gap in the innovation management literature about sport that should be addressed by more research combining both the innovation and sport disciplines.

Most of the existing research on sport management focuses on the practical issues rather than taking a critical management perspective (Frisby, 2005; Knoppers, 2015). This means there is a gap in the literature about developing new theory that is especially relevant in a sports context in order to build its identity and facilitate interdisciplinary research. This has been the result of an emphasis in sport management on developing new interdisciplinary theories (Chalip, 2006). Sport theory is important as it aids the explanation of practical issues that exist in business settings and can be utilised to develop and test new theories (Ferkins & Shilbury, 2015; Slack, 1998). In addition, a theory is more influential if it challenges existing assumptions by filling a gap in the current literature (Alvesson & Sandberg, 2013). The theory of sport innovation management has the potential to be a framework for predicting behaviour and to guide future research. This can lead to better understanding about innovation in a sport context, which is an important area of global business. In addition, it helps contribute to the continuing interest about innovation management as having interdisciplinary foundations. The theory of sport innovation management is offered as a way to learn about the complex and evolving nature of sport as an area of interest.

The purpose of this paper is to posit some suggestions about how sport might have an innovation management capability, by identifying a set of relationships between the innovation management and the sport management literature. This means that sport innovation management should be viewed from a number of perspectives such as service, disruptive and technological. This will help researchers, policy makers and organisations when discussing sport innovation management define what type they are referring to in order for it to be better understood and analysed. Despite the distinct differences in types of sport innovation there are some common themes that emerge in terms of the adoption process, which are discussed in this paper. These similarities include the way sport innovation is causing shifts in the way a sport is played, viewed or consumed. Therefore, progress needs to be made about how sport innovation can be studied from both a typology approach but also as a separate discipline of innovation management.

This paper begins by discussing the role of innovation management, drawing on literature from the social science domain but stressing its practical nature. The role of innovation in a sport context is then explored as there are few studies that have specifically examined innovation capability using a sports lens. This leads to a discussion of a distinct sport innovation management perspective by providing a future research agenda.

Literature review

Innovation

The innovation process involves studying the temporal sequence of change, which is a complex issue due to the constant new ideas that are emerging in the marketplace (Wolfe, 1994). Innovation is needed in society in order to acquire and nurture information that can be utilised to facilitate change (Chrisman, Chua, De Massis, Frattini, & Wright, 2015). The importance of innovation is reflected in Markides (2006, p. 19) stating 'different kinds of innovations have different competitive effects and produce different kinds of markets'. This has meant that the rational theory of firm behaviour suggests that all organisations, regardless of industry engage in the same level of innovation (Chrisman et al., 2015). However, this is not always the case as some industries differ in the amount of technology and strategy utilised as a function of their competitiveness. A key example of this is the sport industry, which is characterised by its continual search for new ideas and knowledge.

Innovation has mostly been studied in the for-profit sector of the sport industry, with little research conducted in non-profit contexts (Hoeber & Hoeber, 2012). This has meant that there is a lack of understanding about how innovation differs in the sport industry and why it should be studied as a distinct form of innovation management. In addition, the fragmented body of literature about innovation management means there are numerous suggestions about how to study this discipline and its value in an interconnected world (Hauser, Tellis, & Griffin, 2006). This is reflected in the literature on innovation incorporating a diversity of epistemological positions due to the way it can be measured and researched (Wolfe, 1994). The multidimensional nature of innovation means there is ambiguity in how it is defined and applied in different industries depending on the management strategy (Adams, Bessant, & Phelps, 2006).

Innovation strategy involves an organisation being committed to developing ideas that involve planning and forecasting (Adams et al., 2006). Organisations do not have to adopt an innovation but can respond to it by investing in the area of interest (Markides, 2006). Organisational determinants of innovation focus on the culture of risk taking and being willing to change behaviour existing in an organisation (Igira, 2008). Organisations that are more open to innovation tend to be more interested in being proactive about future trends (Hoeber & Hoeber, 2012). This has meant that there is debate in the literature about whether the size of an organisation affects its ability to focus on innovation due to resource and time issues (Damanpour, 1992). Hence, there is the suggestion that large organisations may have the finances to develop innovation but small organisations have the flexibility needed to foster innovation. This is evident in public sector organisations that can take risks due to their continual government support and funding (Damanpour & Schneider, 2006). This implies that public sector organisations might focus more on innovations that have a societal value rather than the purely commercial motivations preferred by other managers.

Managerial determinants of innovation involve focusing on the personality and behaviour of managers in terms of how they influence innovation (Damanpour & Schneider, 2009). Some managers might be more forward thinking, which influences the rate of innovation occurring within their organisations (Hoeber & Hoeber, 2012). This is due to leadership characteristics that are related to the idea of challenging current practices being an important component of the innovation process (Jaskyte, 2004). In addition, Damanpour and Schneider (2006) suggest that a manager's longevity in an organisation helps determine innovation performance because the manager can build capacity for

innovation by motivating people in the organisation. The ability of managers especially in the sport industry to influence change is an important leadership commitment that can be strengthened with support from the board members of an organisation (Cuskelly, Hoye, & Auld, 2006).

Innovation has three main types of analysis that help determine its success and performance: environmental, organisational and managerial (Damanpour & Schneider, 2006). Environmental determinants of innovation include cultural, economic, political and social issues that affect change (Hoeber & Hoeber, 2012). These environmental factors are reflected in those cultural changes in society that will lead to the creation of opportunities for innovation (Damanpour & Schneider, 2006). This can involve challenges based on changing economic conditions that affect the price and supply of materials. Some organisations manage the innovation process with the help of political processes that deal with specific legislation and incentives (Walker, 2008). This may mean some cities are considered more innovative because of their willingness to finance new sports stadiums and facilities. In addition, social conditions are an important aspect as they can affect policy developments that focus on the demographics and trends of a population. The managerial determinants of innovation are likely to be more important to the sport context due to sport's special attributes and attachment to the community (Hoeber & Hoeber, 2012).

Management innovation

Management innovation focuses on an organisation's internal environment, including processes and techniques that lead to better efficiency (Vaccaro, Jansen, Van Den Bosch, & Volberda, 2012). Managers of organisations play a critical role in making sure an innovation is adopted and developed as a way of ensuring competencies are more aligned to emerging practices (Birkinshaw, Hamel, & Mol, 2008). This means that new techniques that enable an improvement in productivity are termed management innovations (Nieves & Segarra-Ciprés, 2015). New practices and structures are key to an organisation building its performance and can involve turning ideas into reality, which is often done by sports communities. Some sports integrate innovations that have been adopted by amateur enthusiasts as a way to provide actionable tools (Caza, 2000). This helps, in a sport context, with increasing the performance of athletes by incorporating innovations that can lead to better results.

Management innovation is an important part of an organisation's success as it enables improvement that can lead to sustained competitiveness, and it is critical to ensuring that new ideas make it into the marketplace (Nieves & Segarra-Ciprés, 2015). There are four main perspectives on management innovation, perspectives which are important components that ensure innovation is relevant to business activities: institutional, fashion, cultural and rational perspectives (Birkinshaw et al., 2008). The institutional perspective involves focusing on the socioeconomic environment that facilitates the innovation process (Nieves & Segarra-Ciprés, 2015). In sport, institutions are important in monitoring the rules and regulations of the game, which relates to whether new sports products and processes can be introduced. International Sport Federation bodies, including the International Olympic Committee, International Tennis Federation and Federation Internationale de Football Association, determine the adoption of new sport innovations. Fashion relates to the timeliness of ideas in terms of their generation and adoption in the marketplace (Nieves & Segarra-Ciprés, 2015). In sport, fashion is an important part of innovation as new materials and dress styles change. The cultural

perspective focuses on the way an organisation or society reacts to new ideas (Volberda, Van Den Bosch, & Heij, 2013). In sport, the culture of clubs and teams may mean that innovations are introduced at a faster rate depending on availability and the financial resources of the innovation. The rational perspective involves the practicality and feasibility of introducing the innovation (Mol & Birkinshaw, 2009). For sport, the rational reason is important in terms of competitiveness and ensuring the long-term survival of clubs and specific types of sport. These key features of sport from an innovation perspective are discussed in the next section.

Sport innovation and knowledge management

The study of innovation management practice in sport requires a distinct approach owing to its intimate relationship with many consumers and its hybrid nature, with non-profit and profit motives. This hybrid nature is due to sport developing from having an amateur approach to becoming a business utilising knowledge management techniques (Robinson, 2008). A key part of the innovation process is knowledge management, with the ideas that come from innovation being generated into information depositories through knowledge management mechanisms (Adams et al., 2006). The knowledge can include both tacit and explicit forms depending on the context of the information transferred and can include information that is gathered as part of an organisation's repository and networking. For sport organisations, the ability to access knowledge is an important part of their competitiveness as they often select ideas based on an opportunity analysis of potential benefits. This process has been referred to as 'absorptive capacity', as it encapsulates the ability of an organisation to recognise and apply new knowledge (Cohen & Levinthal, 1990).

The absorptive capacity is influenced by an organisation's ability to use appropriate innovation techniques incorporating both explicit and tacit forms of knowledge (Tsai, 2001). Explicit knowledge is usually measured via the number of patents generated in a time period (Pitt & Clarke, 1999) or can include the number of informal hours of research and development an organisation engages in (Kleinknecht, 1987). For sports organisations, explicit knowledge can be seen in new products and technologies being utilised that incorporate innovation. Tacit knowledge is harder than explicit knowledge to measure as it has more of an intrinsic value for organisations (Barney, 1991). Due to it being rare, some forms of tacit knowledge are acquired opportunistically via the competitors of an organisation (Adams et al., 2006). More sport organisations are interested in tacit knowledge due to its ability to shape future strategies and business behaviour. This has meant that organisations can capture tacit knowledge by integrating storytelling and other word-of-mouth activities that discuss such knowledge's role and importance.

To stay successful, sports organisations need to continually innovate by attracting and maintaining their customer base (Rundh & Gottfridsson, 2015). This is due to sport having a large international audience, which reflects the growth of existing sports and the introduction of new innovative sports into the marketplace. The increased business focus of sport has led to more interest in sport studies, especially those that take an innovation management approach (Baker et al., 2016). Most types of sport involve some form of innovation due to the degree of risk, uncertainty and competitiveness existing in the industry (Berg, Migliaccio, & Anzini-Varesio, 2014). This influences the winning attitude in sport, which encourages the trying new ideas and being creative and leads to consumers of sport often generating new ideas because of their high level of involvement (Franke & Shah, 2003).

A multilevel approach to sport innovation management is needed that takes into account the individual, dyad, team and organisational perspective (Peachey et al., 2015). Innovation at the individual level involves athletes making new changes based on their experiences and desire to increase performance. The dyad or partner level involves two people or organisations working together on a specific innovation. Often this happens with professional athletes and their sponsors, who can tailor new products based on individual requirements. The group or team level involves innovations such as introducing a new play, or way of playing, into a sport. This can be done at the league level such as the introduction of night games or the use of technology for refereeing decisions. As there is significant competition between different types of sport it is important for sports to innovate in order to maintain and extend their market share. Other innovations at the team level including internationalisation of leagues, such as the National Basketball Association playing games outside their traditional North American base. At the organisational level the innovation might take the form of wearing new sports apparel that improves performance. This can be seen in large sport organisations such as Nike and Reebok introducing new shoes, such as Cross Trainers, tailored to mixed sports usage as a form of product innovation.

Sport innovators focus on the newness of a product or service to highlight its attractiveness, which makes the purchasing of sport innovations desirable to consumers. In addition, sport innovators redefine the way products and services are utilised by enlarging existing sport markets by discovering new potential usages. In addition, business model innovation involves utilising a different strategic approach that is different from current management techniques (Markides, 2006). In sport, this might be sports betting, which initially was offered via physical contact with a bookmaker or in a store, but has now been transformed to an online system. This means that physical sports betting agencies compete in the same industry but in a different manner.

The business model innovations made possible via online delivery methods have significantly influenced the sports sector. Online sports ticket sales that were previously tangible paper tickets are another example of business model innovation. Despite the move to online sports tickets, the National Football League for the Superbowl game still only offers paper tickets and does not allow online ticket sales. This is an interesting dichotomy in sport innovation as there is still an emphasis on sports memorabilia and traditions. There has also been business model innovation with teams, rather than solely a league, offering merchandise online. Whilst sports merchandise sales are still heavily regulated by leagues there is more flexibility in the individualism of sports apparel. The next section will further discuss the importance of having a distinct sport innovation management approach.

Research agenda for sport innovation management

Despite the widespread use of innovation in sport, there is a relative lack of research that focuses on this topic. This necessitates a research agenda on this emerging field of innovation management. Hoerber and Hoerber (2012) suggest that innovation develops differently in a sport context and future research is needed to better understand the process of innovation and the role of team behaviours that affect sport business development. Therefore, it is important that sports managers understand the determinants of innovation and its impact on the market. In addition, sport innovation is an interesting field of research as it combines the fitness and leisure industry with traditionally business-orientated innovation. This is evident in Gilmore and Gilmore's (2007) research

into innovation by football teams in the English Premier League, which found that professional sport has unique characteristics that support the adoption of new practices. This has meant that, despite the interest in sport innovation, there is still a lack of understanding about the actual management process. Therefore, additional research could utilise the theoretical framework of sport innovation management discussed in this paper to test whether innovation is different in sport. This could contribute to the development of sport innovation academic studies by researching the various types of innovation – such as service, disruptive and technological – which are discussed in the following sections.

Service innovation

Sport often takes the form of a service because it has unique elements associated with an intense emotional experience and a high level of social interaction compared with other industries (Smith & Stewart, 2010). This means that when sport is offered as a service it generates a powerful relationship with people, due to its cultural and entertainment value (Zillmann & Paulus, 1993). Despite the uniqueness of sport, there are still similarities with other service segments depending on the way it is consumed and innovated in the marketplace (Ratten & Ratten, 2011). Service innovation normally incorporates the use of information systems to increase efficiencies, which includes digital technologies that have created new opportunities for service innovation (Lusch & Vargo, 2014). In addition, service ecosystems are an important part of the innovation process as they involve the architecture needed for facilitating change (Fishenden & Thompson, 2013). There are four main dimensions of service innovation: concept, interface, delivery systems and technology (Hertog, 2000). In sport, the concept can include new ways of watching a game or interacting with a team. The delivery of the sport event can be via mobile phone applications or traditional sports venues such as stadiums. This makes incorporating technological innovations such as real-time scores important to sports spectators and consumers.

Total service innovation involves new services to new users (Walker, 2008). Many forms of total service innovation incorporate new technologies in a way that has not been seen before in a sports context. An example of total service innovation is fantasy football or electronic gaming competitions that offer a new form of sport to people who have not participated in it before. This makes the innovative capability of a sport a key determinant for its competitiveness and sustainability in the long term (Newell & Swan, 1995). The innovative capability influences how new sport practices will be adopted and whether they are successful in the service context.

Innovation in the service context has an intangible nature, making it harder to assess as it involves both consumption and production in the same time period (Hipp & Grupp, 2005). This means that new processes and behaviours introduced in a service setting can have beneficial outcomes in the form of quality improvements (Damanpour & Aravind, 2012). There are three main types of service innovation: evolutionary, expansionary and total (Walker, 2008). Evolutionary forms of service innovation involve introducing new services to existing users. In sport, evolutionary service innovation can include sports teams offering real-time game and ticket information to existing fans via mobile technology devices. The aim of evolutionary service innovation is to capitalise on advances in technology to provide additional knowledge to consumers. This is important given sports fans attentiveness to statistics and data about their team and players, which means retaining current consumers by integrating new ideas and information.

As sport organisations are competing with other types of sport it is becoming more strategic to incorporate evolutionary innovation.

Expansionary service innovation involves providing existing services to new users (Walker, 2008). Due to the globalisation of sport, some professional sport leagues have utilised this approach by providing multiple languages on their websites to entice new fans. This is important in emerging economies as professional sports leagues such as the National Basketball Association have capitalised on the market for new users by incorporating a cultural approach to their sport services. This includes offering game tickets via different service devices to encourage new people to watch the sport. Some of these new consumers might have been aware of the sport in a different context but when it is televised in their language it opens a new market. Another example is televising sports in certain daytime hours to enable specific countries to watch the sport live. This has been popular with Formula One racing and Asian consumers, who can watch events in the daytime rather than the delayed telecasts from Europe of the past.

Disruptive innovation

Sport organisations are changing to meet the expectations of other businesses and consumers who see innovation as a core part of sport that needs to be disruptive in order to induce radical change. The disruptive innovation process can take time to be integrated into an industry despite some having immediate change (Christensen & Raynor, 2003). This has meant that there are trade-offs between implementing a disruptive innovation and keeping the status quo (Markides, 2006). This is seen in the sports context with some athletes preferring to wear cotton rather than the sweat-resistant fabrics that are now offered by clothing manufacturers. Another example is the use of mobile communications by sports coaches to relay messages to players, as some prefer the personal touch of face-to-face messages. This leads to a conundrum in sport as innovation emerges but there is still a need to keep a level playing field in terms of comparing previous athletic performances. This is seen in baseball, in which no aluminium bats are used so the performance of current players can be compared with that of past players. This is also evident in the use of natural therapies in sport as new medical discoveries become available that were previously unknown. This has meant that there has been a delay in the evaluation of sports performance testing with regards to the use of disruptive innovations.

Disruptive innovation has been evident in the action sports industry, which has utilised innovation in the form of creative expression and individuality to become popular (Thorpe & Wheaton, 2011). This disruptive innovation has led to action sports such as skateboarding, snowboarding and surfing being developed into mainstream sports (Harding, Lock, & Toohey, 2016). In addition, the commercialisation of new sports has been the result of innovative partnerships between fans and new technology. These new sports have resulted in subcultures existing that incorporate fun and innovation (Rinehart, 2000). Some disruptive innovations in sport, such as the use of aluminium bats in baseball, have been banned due to significantly affecting performance results (Wilmot, 2005). This compares with disruptive innovations in other sports such as tennis, which allows aluminium and other materials to be used in tennis rackets. This is supported by Hillairet, Richard, and Bouchet (2009), who found that the type of sport, such as a decathlon, affects the innovation process. Therefore, more research is required on the nature of disruptive innovation in different sports to see the different ways it is applied and the context of the innovation.

More research also needs to focus on the use of partnerships and alliances to facilitate disruptive innovation in the sport context. This is in line with Desbordes (2002) who, in a study about the sports equipment industry, found that collaboration encouraged innovation and was a key part of the development process. In addition, Franke and Shah (2003) discussed how communities support sport innovation by sharing the development process amongst end-users. This has led to there being more business and societal pressures causing disruptive innovations in sport.

Technological innovation

Technological innovations in sport can be sometimes hard to assess as there may be limited research about their affect and development process. Some sports have integrated administrative innovations by enabling fans to use technology in a self-service manner. New sports such as snowboarding, which introduced technological innovations once considered innovative, are now judged as mainstream sports (Girginov, 2010). Wheaton (2000), in a study on windsurfing, found that as a new sport emerges there is usually an associated subculture that invests time in developing new innovations, which incorporate technological advancements. This has meant that technological innovation is changing the way data about sport are utilised as there has been an increase in virtual sports, such as fantasy football, using real-life player analytics. More research is required to see how technological innovation is transforming the sport industry by introducing new sports and products. For example, Wolfe, Wright, and Smart (2006) examined the use of data analytics in Major League Baseball by focusing on sabermetrics and found that technological innovations are a useful addition to the sport industry.

Chrisman et al. (2015, p. 311) defines technological innovation as ‘the process by which entrepreneurs exploit opportunities to commercialise new products, services, processes or business models’. Innovation is needed in the changing business environment due to competition and increased technology changes (Nieves & Segarra-Ciprés, 2015). Increasing a firm’s survival depends on its ability to manage innovation that may be inherently risky (Rhee, Park, & Lee, 2010). This can be complemented by focusing on emerging technologies that are specifically orientated to the sport sector. Studies could investigate how technological innovations are adopted in the sport context in terms of leadership and social engagement. The process of developing a sport-related technological innovation requires more research aimed at understanding whether the innovation management process differs in sport compared with the traditional manufacturing and other industry contexts from which innovation is usually studied.

Disruptive innovations create a change in the market, which has implications for existing businesses and managers (Markides, 2006). Despite the common use of the term ‘innovation’ some forms, including disruptive innovation, still lack consensus in their application (Danneels, 2004). Originally, Christensen (1997) focused on technologies as part of his definition of disruptive innovation as this was the key change happening at the time the paper was written. As more different types of innovation, such as services and processes, took a disruptive form there was a shift in the literature to a wider understanding of what disruptive innovation means (Markides, 2006). This is seen in Christensen and Raynor (2003), who include more examples of disruptive innovation such as products and services in their revised definition.

In sport, disruptive innovation often occurs via consumers and supporters, which is seen in football team supporters having similar behavioural patterns to non-sport contexts (Tapp, 2004). However, not all sport consumers are the same as they have different

attitudes and behaviours (Stewart, Smith, & Nicholson, 2003). Research by Parker and Stuart (1997) suggests football consumers are completely different from consumers of other types of services due to their loyalty and emotional attachment. This is seen in Hunt, Bristol, and Bashaw (1999), who stated that sport consumers can range from casual supporters to long-term committed fans. In addition, Bee and Madigral suggest that there are fewer engaged types of fans who are not as much concerned with a specific team winning but are more focused on the context. This has meant that, generally, it has been found that there is a high level of consumer loyalty towards sports teams (Funk & James, 2006). This is due to the allegiance consumers have from a young age towards a certain sport team (Baker et al., 2016). Therefore, sport consumers want both digital and physical experiences at events but more research is required to understand how organisations are facilitating this innovation management process. In addition, there is an increasing integration of sport social media marketing and technology innovation, such as touch screens at sports events, which merits further inquiry.

Working with sport technological innovations necessitates academics applying relevant research approaches that have both a qualitative and quantitative paradigm. This means that case studies explaining the evolution of a sport technology innovation would be useful to study. This could be conducted via a longitudinal approach to fully understand the dynamic nature of technological innovations and whether they differ in the sports context. Researchers are encouraged to work together by examining patent data about sport innovations in order to develop a framework to help explain the incubation process. The utilisation of a triangulation approach with both patent and case study data is helpful to translate the results into the sport innovation field. This will also help build the researcher and practitioner link and enhance the scholarship about sport innovation, thereby contributing to a more interdisciplinary understanding about the innovation management field.

Conclusions

For innovation and sport management scholars, this paper has provided a review of sport innovation which can be utilised for discussions about emerging technologies in a business context. In addition, this paper will lead to more practical discussions about how to learn from sport innovators and encourage more innovation in the sports context. This could be completed by focusing on the innovation practices of sport organisations and the challenges they face in developing new products and services. Teaching the importance of adopting an innovative mindset can help sport organisations learn about the successes and failures as part of the innovation lifecycle. This paper provides an interesting contribution to the link between innovation management and sport theory. A long-term and coordinated plan towards innovation is needed to ensure that sport is an agent for change. Innovation can be a managerial advantage for governments and stakeholders interested in sport and it is suggested that sport innovators design both formal and informal networking events to build innovation communities and ecosystems. In summary, this paper has stressed the need for a theory of sport innovation management due to the uniqueness of sport compared with other industries. It is expected the theory developed in this paper will help spur more research into innovation management studies about sport. This theory can also help sport managers to improve their innovation processes in the increasingly dynamic and competitive global business world. The sport innovation management theory suggested in this paper can also aid more research on innovation in the context of sport and related areas, including leisure and tourism.

References

- Abeza, G., O'Reilly, N., Seguin, B., & Nzindukiyimana, O. (2015). Social media scholarship in sport management research: A critical review. *Journal of Sport Management*, 29, 601–618.
- Adams, R., Bessant, J., & Phelps, R. (2006). Innovation management measurement: A review. *International Journal of Management Reviews*, 8, 21–47.
- Alvesson, M., & Sandberg, J. (2013). Has management studies lost its way? Ideas for more imaginative and innovative research. *Journal of Management Studies*, 50, 128–152.
- Baker, B. J., McDonald, H., & Funk, D. C. (2016). The uniqueness of sport: Testing against marketing's empirical laws. *Sport Management Review*, 19, 378–390. Online accessed 1/9/2016.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17, 99–120.
- Berg, E. C., Migliaccio, T. A., & Anzini-Varesio, R. (2014). Female football players, the sport ethic and the masculinity-sport nexus. *Sport in Society*, 17, 176–189.
- Birkinshaw, J., Hamel, G., & Mol, M. J. (2008). Management innovation. *Academy of Management Review*, 33, 825–845.
- Caza, A. (2000). Context receptivity: Innovation in an amateur sport organization. *Journal of Sport Management*, 14, 227–243.
- Chalip, L. (2006). Towards social leverage of sport events. *Journal of Sport & Tourism*, 11, 109–127.
- Chrisman, J. J., Chua, J. H., De Massis, A., Frattini, F., & Wright, M. (2015). The ability and willingness paradox in family firm innovation. *Journal of Product Innovation Management*, 32, 310–318.
- Christensen, C. M. (1997). Making strategy: Learning by doing. *Harvard Business Review*, 75, 141–156.
- Christensen, C. M., & Raynor, M. E. (2003). Why hard-nosed executives should care about management theory. *Harvard Business Review*, 81, 66–75.
- Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*, 35, 128–152.
- Cuskelly, G., Hoyer, R., & Auld, C. (2006). *Working with volunteers in sport: Theory and practice*. London: Routledge.
- Damanpour, F. (1992). *Organizational size and innovation*. *Organization Studies*, 13, 375–402.
- Damanpour, F., & Aravind, D. (2012). Managerial innovation: Conceptions, processes, and antecedents. *Management and Organization Review*, 8, 423–454.
- Damanpour, F., & Schneider, M. (2006). Phases of the adoption of innovation in organizations: Effects of environment, organization and top Managers¹. *British Journal of Management*, 17, 215–236.
- Damanpour, F., & Schneider, M. (2009). Characteristics of innovation and innovation adoption in public organizations: Assessing the role of managers. *Journal of Public Administration Research and Theory*, 19, 495–522.
- Danneels, E. (2004). Disruptive technology reconsidered: A critique and research agenda. *Journal of Product Innovation Management*, 21, 246–258.
- Desbordes, M. (2002). Empirical analysis of the innovation phenomena in the sports equipment industry. *Technology Analysis & Strategic Management*, 14, 481–498.
- Ferkins, L., & Shilbury, D. (2015). The stakeholder dilemma in sport governance: Toward the notion of "stakeowner". *Journal of Sport Management*, 29, 93–108.
- Fishenden, J., & Thompson, M. (2013). Digital government, open architecture, and innovation: Why public sector IT will never be the same again. *Journal of Public Administration Research and Theory*, 23, 977–1004.
- Franke, N., & Shah, S. (2003). How communities support innovative activities: An exploration of assistance and sharing among end-users. *Research Policy*, 32, 157–178.
- Frisby, W. (2005). Dr Earle Zeigler lecture. *Journal of Sport Management*, 19, 1–12.
- Funk, D. C., & James, J. D. (2006). Consumer loyalty: The meaning of attachment in the development of sport team allegiance. *Journal of Sport Management*, 20, 189–217.
- Girginov, V. (2010). Culture and the study of sport management. *European Sport Management Quarterly*, 10, 397–417.
- Harding, J., Lock, D., & Toohey, K. (2016). A social identity analysis of technological innovation in an action sport: Judging elite half-pipe snowboarding. *European Sport Management Quarterly*, 16, 214–232.

- Hauser, J., Tellis, G. J., & Griffin, A. (2006). Research on innovation: A review and agenda for marketing science. *Marketing Science*, 25, 687–717.
- Hertog, P. D. (2000). Knowledge-intensive business services as co-producers of innovation. *International Journal of Innovation Management*, 4, 491–528.
- Hillairet, D., Richard, G., & Bouchet, P. (2009). The dual management of innovation by the Decathlon group. A distinctive strategic system on the sport goods market. *Journal of Innovation Economics*, 1, 189–210.
- Hipp, C., & Grupp, H. (2005). Innovation in the service sector: The demand for service-specific innovation measurement concepts and typologies. *Research Policy*, 34, 517–535.
- Hoeber, L., & Hoeber, O. (2012). Determinants of an innovation process: A case study of technological innovation in a community sport organization. *Journal of Sport Management*, 26, 213–223.
- Hunt, K. A., Bristol, T., & Bashaw, R. E. (1999). A conceptual approach to classifying sports fans. *Journal of Services Marketing*, 13, 439–452.
- Igira, F. T. (2008). The situatedness of work practices and organizational culture: Implications for information systems innovation uptake. *Journal of Information Technology*, 23, 79–88.
- Jaskyte, K. (2004). Transformational leadership, organizational culture, and innovativeness in nonprofit organizations. *Nonprofit Management and Leadership*, 15, 153–168.
- Kleinknecht, A. (1987). Measuring R & D in small firms: How much are we missing? *The Journal of Industrial Economics*, 36, 253–256.
- Knoppers, A. (2015). Assessing the sociology of sport: On critical sport sociology and sport management. *International Review for the Sociology of Sport*, 50, 496–501.
- Lusch, R. F., & Vargo, S. L. (2014). *The service-dominant logic of marketing: Dialog, debate, and directions*. London: Routledge.
- Markides, C. (2006). Disruptive innovation: In need of better theory. *Journal of Product Innovation Management*, 23, 19–25.
- Mol, M. J., & Birkinshaw, J. (2009). The sources of management innovation: When firms introduce new management practices. *Journal of Business Research*, 62, 1269–1280.
- Newell, S., & Swan, J. (1995). Professional associations as important mediators of the innovation process. *Science Communication*, 16, 371–387.
- Nieves, J., & Segarra-Ciprés, M. (2015). Management innovation in the hotel industry. *Tourism Management*, 46, 51–58.
- Parker, K., & Stuart, T. (1997). The west ham syndrome. *International Journal of Market Research*, 39, 509–517.
- Peachey, J. W., Borland, J., Lobpries, J., & Cohen, A. (2015). Managing impact: Leveraging sacred spaces and community celebration to maximize social capital at a sport-for-development event. *Sport Management Review*, 18, 86–98.
- Pitt, M., & Clarke, K. (1999). Competing on competence: A knowledge perspective on the management of strategic innovation. *Technology Analysis & Strategic Management*, 11, 301–316.
- Ratten, V., & Ratten, H. (2011). International sport marketing: Practical and future research implications. *Journal of Business & Industrial Marketing*, 26, 614–620.
- Rhee, J., Park, T., & Lee, D. H. (2010). Drivers of innovativeness and performance for innovative SMEs in South Korea: Mediation of learning orientation. *Technovation*, 30, 65–75.
- Rinehart, R. (2000). Emerging arriving sport: Alternatives to formal sports. *Handbook of Sports Studies*, 1, 504–520.
- Robinson, L. (2008). The business of sport. In B. Houlihan (Ed.), *Sport and society: A student introduction* (2nd ed., pp. 307–327). London: Sage Publications.
- Rundh, B., & Gottfridsson, P. (2015). Delivering sports events: The arena concept in sports from a network perspective. *Journal of Business & Industrial Marketing*, 30, 785–794.
- Slack, T. (1998). Studying the commercialization of sport: The need for critical analysis. *Sociology of Sport Online*, 1(1). Retrieved from <http://physed.otago.ac.nz/sosol/v1i1/v1i1a6.htm>
- Smith, A. C., & Stewart, B. (2010). The special features of sport: A critical revisit. *Sport Management Review*, 13(1), 1–13.
- Stewart, B., Smith, A., & Nicholson, M. (2003). Sport consumer typologies: A critical review. *Sport Marketing Quarterly*, 12, 206–216.
- Tapp, A. (2004). The loyalty of football fans – We’ll support you evermore? *Journal of Database Marketing & Customer Strategy Management*, 11, 203–215.

- Thorpe, H., & Wheaton, B. (2011). 'Generation X Games', action sports and the Olympic movement: Understanding the cultural politics of incorporation. *Sociology*, 45, 830–847.
- Tsai, W. (2001). Knowledge transfer in intraorganizational networks: Effects of network position and absorptive capacity on business unit innovation and performance. *Academy of Management Journal*, 44, 996–1004.
- Vaccaro, I. G., Jansen, J. J., Van Den Bosch, F. A., & Volberda, H.W. (2012). Management innovation and leadership: The moderating role of organizational size. *Journal of Management Studies*, 49, 28–51.
- Volberda, H. W., Van Den Bosch, F. A., & Heij, C. V. (2013). Management innovation: Management as fertile ground for innovation. *European Management Review*, 10(1), 1–15.
- Walker, R. M. (2008). An empirical evaluation of innovation types and organizational and environmental characteristics: Towards a configuration framework. *Journal of Public Administration Research and Theory*, 18, 591–615.
- Wheaton, B. (2000). "Just Do It": Consumption, commitment, and identity in the windsurfing subculture. *Sociology of Sport Journal*, 17, 254–274.
- Wilmot, M. R. (2005). Baseball bats in the high tech era: A products liability look at new technology, aluminium bats, and manufacturer liability. *Marquette Sports Law Review*, 16, 353–380.
- Wolfe, R. A. (1994). Organizational innovation: Review, critique and suggested research directions. *Journal of Management Studies*, 31, 405–431.
- Wolfe, R., Wright, P. M., & Smart, D. L. (2006). Radical HRM innovation and competitive advantage: The Moneyball story. *Human Resource Management*, 45, 111–145.
- Zillmann, D., & Paulus, P. B. (1993). Spectators: Reactions to sports events and effects on athletic performance. In R. N. Singer, M. Murphey, & L. K. Tennant (Eds.), *Handbook of research on sport psychology* (pp. 600–619). New York, NY: McMillan.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.