

Master's Thesis Exploring Innovation Strategies in German Football A Qualitative Study via Expert Interviews

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Abstract

Purpose – This master thesis aims to uncover the current state of innovation in German football clubs. The primary objective is to identify the understanding thereof and outline the strategies and aspirations of the sampled clubs. In addition, it attempts to trace the concept of open innovation in the organizations studied.

Design / Methodology – The research employed a comprehensive literature review, followed by a qualitative approach. Data was collected via semi-structured interviews with six representatives of German Bundesliga clubs. The results of the interviews were analyzed using a thematic code system.

Findings – The study identified a variety of innovation strategies, ranging from explicit first mover aspirations to more passive interpretations. Outcomes address several points for improvement, both externally and internally. Club structures and innovation processes were found to be in a state of development as clubs realized the opportunities created by innovation.

Implications / **Limitations** — The research encourages managers to pursue a more innovative club culture based on a common understanding of innovation. For this, improved structures in line with the regulatory requirements are needed and a fancentric approach is identified as a success factor. The study has limitations, particularly with regard to the sample, both in terms of size and selection criteria.

Originality / Value – The originality of this study lies in its sole focus on the German football ecosystem and the context and insights it provides into a highly dynamic field. With the emergence of further mandatory requirements for all clubs, the study provides a useful snapshot of innovation in German football as well as a basis for international comparison of approaches in future studies.

Keywords – Innovation, Strategy, Football, Bundesliga, Organizational Innovation, Digitalization

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COVID-19 Coronavirus Disease 2019

DFB Deutscher Fußball-Bund e.V. (English: German Football Association)

DFL Deutsche Fußball Liga (English: German Football League)

FC Football Club

FIFA Fédération Internationale de football association (English:

International Association Football Federation)

KPI Key performance indicator

NBA National Basketball Association

UEFA Union of European Football Associations

UK United Kingdom

VfL Verein für Leibesübungen (English: Club for physical exercise)

1 Introduction

"The DFL is an innovation leader in professional sport, and in football in particular" (DFL Deutsche Fußball Liga, n.d.) is the confident statement on the homepage of the German football league with which they describe their ambition in the field of innovation and sport. This proclamation expresses the current attitude in football, where innovation is an undeniable cornerstone capable of reshaping the competitive landscape and enhancing the spectator experience. Given the increasingly important role of innovation in both the commercial and competitive side of football, academic research into the innovation strategies of the German football industry is of critical importance. Therefore, the study at hand aims to dissect the multiple dimensions of innovation within German football, shedding light on their application and potential. This research is not just an academic study; it also reflects and responds to the everchanging nature of a dynamic sport.

Certainly accelerated by the COVID-19 environment, many sport organizations have adapted their business strategies to deal with the new expectations in the market (Ratten, 2021a). Most notably in football, there is a shift, which saw clubs from being run like clubs to being run like businesses, along with a strong commercialization of its assets (Ratten, 2020b). This continues the development from sports clubs into fully capable businesses (Potts & Ratten, 2016). In the midst of this, innovation has become an essential aspect of modern sport organizations. Clubs strive to stay competitive, increase revenues and profits (Ratten, 2020b), and attract and retain their fan base (Rundh & Gottfridsson, 2015). Thus, over the last years, several clubs emerged with distinct approaches to foster innovation and ecosystems around them.

On an international level, pioneers in innovation strategies have been proving themselves for several years. As such, in 2017, FC Barcelona launched the Barça Innovation Hub, an ecosystem surrounding the club grounds that aims to drive innovation by sharing knowledge, tools, and data (FC Barcelona, 2023; Monteiro et al., 2022). The hub serves as a platform for information exchange, offers education and is a collaborative effort to identify future solutions and develop them with external partners. It is characterized by the open innovation approach (Chesbrough et al., 2021; Monteiro et al., 2020). Arsenal FC from London, UK, launched a startup program to enable collaboration with innovative startups that can "move the club's business forward" (Arsenal Innovation Lab, 2017). Over multiple months, selected startups develop their idea in order to secure a partnership with the club, which may lead to an

investment down the line. Both of these clubs have had recognized success with their endeavors and have received been ranked among the most innovative sports teams in the world, with FC Barcelona ranking first and Arsenal FC third (Sports Innovation Lab, 2022).

Similarly, German football clubs have launched notable initiatives to increase their innovative activities. Eintracht Frankfurt for example created a subsidiary which integrates all of their strategic digital projects, called "EintrachtTech" (Eintracht Frankfurt, n.d.). Continuous inhouse development of their applications, innovative approaches to open up new business areas and their arena as a testing ground for innovation are part of the unique, award-winning project (TOP 100, 2023). Next to their startup program, VfL Wolfsburg announced an open innovation competition to go beyond the club's sporting activities and identify new business opportunities in early 2022 (Volkswagen AG, 2022). Seemingly as part of their innovation strategy, the club leverages their corporate ecosystem to stay competitive and to establish itself as an innovation leader in the Bundesliga (Máté, 2022). Additionally, the league's organizer DFL Deutsche Fußball Liga (German football league) positions itself as a leader for innovation in professional sports, as mentioned at the very start, and has founded multiple subsidiaries to drive innovation in the field (DFL Deutsche Fußball Liga, n.d.). The organization has also established a conference as a platform for exchange on the topic.

The need for research of innovation within football, or German football in this case specifically, is further justified by the recent agreement and commitment to sustainability across ecological, economic, and social dimensions by all Bundesliga clubs via the sustainability criteria as part of the DFL licensing regulations (DFL Deutsche Fußball Liga, 2022b). Particularly, the subject area of club management and organization strikes attention due to the dedicated category of "digital and innovation" (DFL Deutsche Fußball Liga, 2022a). Due to the criteria and minimum requirements put in place, clubs are mandated to provide proof for innovation potential concepts and must appoint a responsible individual for the topic, which underscores the need for systematic assessments. Therefore, research on innovation in German football is not only vital for theorists and scholars but for practitioners and managers alike as they begin to navigate these new circumstances. The insights generated through studies such as this one might help navigating the complex industry to foster continued growth.

Despite these only being a few of the available examples, there is a lack of comprehensive research on the perspectives of sport organizations on and approach to innovation as argued by many scholars (Ferreira et al., 2020; Potts & Ratten, 2016; Ratten, 2016; Tjønndal, 2016). Thus, the purpose of this study is to investigate the innovation approaches of various organizations in football in Germany and identify their focus areas and their idea of best practices. It will also examine how these approaches relate to academic frameworks in innovation management which have found application in the sport industry such as open innovation (Chesbrough et al., 2021).

Hence, the research questions which the study aims to answer are the following:

- 1. What are the key characteristics of German football organizations' innovation strategies, and how do they compare to one another?
- 2. How do the approaches relate to the concept of open innovation as established by Chesbrough (2003)?

The first question's objective is to examine the approaches, processes and initiatives which football clubs integrate into their business activities as well as the opportunities and challenges they perceive. Additionally, it will attempt to gain insights into areas of priority, in which clubs are searching for innovative solutions. The second question aims to find a link between the described approaches and the concepts of open innovation. Consequently, the thesis is expected to provide insights into innovation strategies of football organizations and identify focus areas. Thus, it hopes to contribute to the academic and practical understanding of innovation in professional football. The findings will be useful to organizations, policymakers, academics and managers interested in or responsible for innovation in football clubs and organizations.

The study consists of a total of six sections. After this introduction, in section 2, a theoretical foundation to discuss the topic of innovation will be laid out after which the current state of research will be explored in the literature review. Section 3 will go into detail regarding the methodology of the study and explain the decision-making process for each step. Section 4 will present the results of the empirical research in more detail, followed by the discussion of those with regards to the research questions, their managerial implications and the limitations of the study in section 5. Section 6 will point out valuable, future research paths to be pursued and conclude the study.

2 Theoretical Background and Literature Review

Before the study does its part in contributing to the research on innovation in sports, this literature review will establish a foundation by examining the current state of research concerning the field. In a concept-centric approach (Webster & Watson, 2002), the theoretical background of innovation, innovation strategy and its determinants will be developed before exploring the research on their applications in sports. The latter part will also trace characteristics of the open innovation paradigm by Chesbrough (2003) as well as innovation ecosystems. The literature review attempts to uncover patterns in recent research topics and can help uncover academic gaps specific to the sport industry (Webster & Watson, 2002).

2.1 Defining Innovation

Generally, there are two different, yet complementing schools of thought when it comes to defining innovation. According to the Merriam-Webster dictionary, innovation is "a new idea, method, or device" or "the introduction of something new" (Merriam-Webster, 2023), focusing on the nature of innovation as something being new. However, when put in the context of business, there are plenty of additions, with which institutions and scholars add further detail to this basic definition. Throughout the years, scholars have refined and specified existing definitions many times. Several themes have emerged from this, with the two most prominent being the differentiation of innovation as a process from innovation as an outcome. Both of which have received attention in academia.

Regarding the outcome, the Oslo Manual defines innovation as "the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations" (OECD & Statistical Office of the European Communities, 2005, p. 46), which expands the scope and goes into detail of what it is that is new. Furthermore, some definitions insist on the introduction of these new ideas to the market, which differentiates them from merely being considered inventions (Chrisman et al., 2015; Garcia & Calantone, 2002). It becomes clear that innovation can occur in a variety of outcomes, necessitating a standard method for categorizing them. Garcia and Calantone (2002, p. 117) point out that "there is no question that not all innovations are the same." Hence, it is not only the form by which innovations vary.

Other aspects are magnitude, also referred to as newness (Katz et al., 2010) as well as referent (Crossan & Apaydin, 2010; Markides, 2006).

When viewing innovation as a process, the definition changes. After analyzing 60 definitions of innovation in the existing literature, Baregheh et al. (2009) add further notions in their comprehensive definition. The authors propose that innovation is a multi-stage process, which organizations leverage to "advance, compete and differentiate themselves successfully in the marketplace" (Baregheh et al., 2009, p. 1334). Taylor (2017) analyzed a sample of applicable definitions and condensed them into one by describing innovation as a process, which develops new ideas into practical and valuable outcomes. Trott (2017), too, considers innovation to be a process that stretches from generating ideas and developing them to the manufacturing and marketing of new products. In accordance, other scholars refer to it as an iterative process in the pursuit of organizational goals (Birkinshaw et al., 2008; Garcia & Calantone, 2002; Simao & Franco, 2018), which can business growth, commercial success, market leadership or added value among others as pointed out in another definition (Katz et al., 2010). Thus, the process characteristic is underlined as well as the aim of innovation, which complements the perception of innovation as an outcome.

A summarizing definition, which explicitly accounts for both, is provided by Crossan and Apaydin (2010, p. 1155) after consolidation of 27 years of literature:

"Innovation is: production or adoption, assimilation, and exploitation of a value-added novelty in economic and social spheres; renewal and enlargement of products, services, and markets; development of new methods of production; and establishment of new management systems. It is both a process and an outcome."

Still, the authors clarify that the outcome is the superior part of innovation as without it, the process would not be completed, hence invalid as a definition (Crossan & Apaydin, 2010). The mention of both, products and markets, hints at a relation to diversification strategies, most prominently Ansoff (1958). Moreover, the two authors develop a framework for organizational innovation describing several aspects of their above-mentioned definition (Crossan & Apaydin, 2010). In total, ten dimensions of innovation are identified in the literature. Additionally, their framework includes determinants of innovation, which other authors also refer to as antecedents (Simao & Franco, 2018). Here, these are grouped by leadership and ability, managerial levers

and business processes. The full framework is portrayed in Figure 1. Section 2.1 will continue to elaborate on the various aspects before the following literature review on innovation in sports in section 2.2 will lean on the theoretical foundation established by this framework.

Leadership (Individual Managerial levers Business processes Innovation as a Innovation as an and Group Level) (Organizational Level) (Process Level) process outcome Level Form Mission, goals & Initiation & (Individual/Group/ (Product/Service/ strategy decision-making Firm) Process/ Business Model) Driver (Resources) Structure & Portfolio Market Magnitude systems management opportunities) (Incremental/ Radical) CEO's, top Direction management's (Top-down/ and board of Development & Resource Bottom-up) directors' allocation implementation Referent ability and (Firm/Market/ motivation to Source Industry) innovate (Invention/ Org. learning & Adoption) Project knowledge management management Type Locus (Administrative/ (Firm/Network) Technical) Organizational Commercialization culture Nature (Tacit/Explicit) Determinants of Innovation Dimensions of Innovation

Figure 1: Multi-Dimensional Framework of Organizational Innovation

Source: Adapted from Crossan and Apaydin (2010)

2.1.1 Innovation as an Outcome

Innovation outcomes can come in a variety of ways, which is why, for a holistic description, several dimensions are common to be used. The framework at hand summarizes them as form, magnitude, referent and type.

In the framework, the first dimension covers whether the innovation outcome concerns a product or a service, a process or a business model (Crossan & Apaydin, 2010). Similarly, other researchers establish further, but more granular typologies to describe the same and name organizational, management, production, commercial, and marketing innovation in addition (Baregheh et al., 2009; Simao & Franco, 2018; Trott, 2017; Walker, 2008). However, these are commonly regarded as variations of process innovation. Product or service innovations usually describe the customer-facing perspective as they provide new ways for consumer need satisfaction (Cooper, 1998;

Walker, 2008). A business can achieve service innovation in several ways. These can be evolutionary, expansionary and total in nature (Walker, 2008). Firstly, the introduction of new services to current users is called evolutionary innovation and the kind which is most commonly explored (Wang & Ahmed, 2004). Secondly, innovation that introduces existing services to new users is titled expansive. Thirdly, new services for new customers are part of total service innovation (Walker, 2008). These perceptions share similarities with the product-market matrix as established by Ansoff (1958). Process and business model innovations deal with a more internal perspective. On the one hand, process innovation introduces new methods of management and production which improve those used up to a point in time (Damanpour et al., 2009; Wang & Ahmed, 2004). Business model innovation on the other hand can be defined as the process of designing or revising a business model for or within an organization, depending on whether it is an emerging or incumbent organization (Dodgson et al., 2014).

Furthermore, a second dimension to designate innovation outcomes is the referent (Crossan & Apaydin, 2010). The referent helps in clarifying the aspect of the innovation's newness. As such it differentiates between the firm internally, the market or the industry.

The third dimension of the group describes the degree of newness that an innovation introduces (Crossan & Apaydin, 2010). Innovation is often viewed to be on a spectrum which stretches from incremental to radical (Ali, 1994; Gopalakrishnan & Damanpour, 1997). The former includes stepwise, gradual improvements, modifications or variations in relation to the respective form of innovation and the latter is classified by fundamental breaks or significant changes (Ali, 1994; Dodgson et al., 2008). In the literature, many names were coined for radical innovation, among which are disruptive, game-changing and discontinuous (Ali, 1994; Christensen, 1997; Garcia & Calantone, 2002; Markides, 2006). Of course, the magnitude must be considered in relation to the referent (Dewar & Dutton, 1986; Markides, 2006).

The fourth dimension here is titled type, in which there is a differentiation between technical and administrative (Crossan & Apaydin, 2010; Gopalakrishnan & Damanpour, 1997). It is important to note, that technical is not to be confused with technological innovation. Technical innovation focuses on changes and improvements in the system and outputs of an organization, while administrative innovation centers

on internal changes, which can for example be internal procedures or means of collaboration (Damanpour & Evan, 1984).

Driven by the on-going digitization of business and of opportunities, innovation has become considerably more accessible for companies worldwide (Bogers et al., 2017). Hence, digital innovation has emerged as a separate discipline, which concerns innovations as defined above "that result from the use of digital technology" (Nambisan et al., 2017, p. 224).

2.1.2 Innovation as a Process

As introduced before, the second school of thought – a less explored perspective according to Crossan and Apaydin (2010) – labels innovation as a process, which precedes the outcome. Hence, instead of defining what an innovation is at the end of it, the dimensions, which relate to it, clarify how that state was achieved (Crossan & Apaydin, 2010). The framework establishes five distinct dimensions, which are to be briefly explained: level, driver, direction, source and locus.

The first dimension makes clear at what level the process of innovation occurs and receives more detail through the third dimension, namely direction, which indicates whether the process begins at a high organizational level and is passed downwards or vice-versa, is initiated on a lower, operational level. Drivers of the innovation process can be manyfold and come from the organization internally or from external factors (Crossan & Apaydin, 2010). The framework suggests that knowledge and resources can be internal drivers, while market opportunities and regulatory changes can be external ones. This constitutes the third dimension. The fourth dimension designates the source of the innovation process. Scholars identify several different kinds of sources for innovation and name "consultants, suppliers, customers, competitors and universities, among other sources" (Simao & Franco, 2018, p. 242). As stated in the definition in the opening of section 2.1, innovation can be achieved by adopting instead of inventing. Thus, similarly to the driver, a source can be internal by ideation and research, or external (Crossan & Apaydin, 2010). The fifth dimension explains where the process takes place and distinguishes a closed, firm only process from an open, network process. This differentiation has been popular in innovation theory for an extended period, especially since the emergence of open innovation (Chesbrough, 2003), which has been explicitly linked to the locus of the innovation process

(Elmquist et al., 2009). The previously defined digital innovation is commonly characterized by a more open process (Bogers et al., 2022).

2.1.2.1 Open Innovation

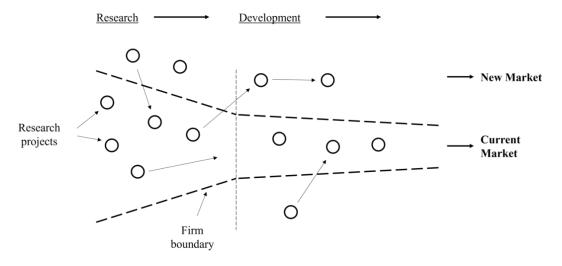
Open innovation is a concept introduced by Henry Chesbrough in 2003, which he later explicitly defines as "the use of purposive inflows and outflows of knowledge to accelerate internal innovation and expand the markets for external use of innovation" (Chesbrough, 2012, p. 20). An updated definition proposed by Chesbrough and Bogers (2014) calls it "a distributed innovation process based on purposively managed knowledge flows across organizational boundaries" (Chesbrough & Bogers, 2014, p. 17). It is based on the idea that companies should actively involve both internal and external ideas, and open up the innovation processes to contribution, on the one hand, but also allow underutilized ideas to leave the organizational boundaries, on the other hand (Chesbrough, 2012). This was reinforced by scholars in the years after (Simao & Franco, 2018). The two paths of knowledge are called inside-out and outside-in and constitute two important kinds of open innovation. A third path, which combines the two initial ones, was added later and was coined coupled open innovation (Chesbrough & Bogers, 2014). Figure 2 shows a schematic view of the model.

The main aspect of differentiation from an open to a closed process is the perception of a firm's boundaries. In open innovation, the boundaries carry certain attributes, of which the most significant one is the increased permeability to allow knowledge exchange (Elmquist et al., 2009). This permeability enables the innovation process to take place in networks, such as ecosystems, communities or platforms (West & Bogers, 2017). Some scholars even see innovation ecosystems specifically as requirements for a successful open innovation practice (West & Bogers, 2014). This is because functioning ecosystems allow value creation that individual firms would not be capable of (Adner, 2006).

An innovation ecosystem is considered to be "a community of hierarchically independent, yet interdependent heterogeneous participants who collectively generate a coherent, ecosystem-level output and related value offering targeted at a defined user audience" (Autio, 2022, p. 99). The independence means that firms usually engage voluntarily and need to see sufficient value potential to do so (Autio, 2022). Given that the interaction is based on the ambitions to develop and commercialize a product or

service jointly, these common objectives usually provide this value potential (Adner, 2006, 2017).

Figure 2: The Open Innovation Model



Source: Adapted from Chesbrough (2003)

2.1.3 Determinants of Innovation

Determinants of innovation are grouped into three clusters, which are in part based on academic theories: leadership as portrayed by the Upper Echelon Theory (Hambrick & Mason, 1984), the managerial levers as understood by the resource-based view of the firm (Barney, 1991; Wernerfelt, 1984) and dynamic capabilities (Teece et al., 1997) and finally, process theory.

2.1.3.1 Leadership

The idea that CEOs and top managers in an organization significantly influence decision-making through the values and motivations they spread as well as the innovation abilities they possess has been around for decades (Hambrick & Mason, 1984). The so-called Upper Echelon Theory was also the motivation for the first determinant of innovation, namely leadership, in the framework of Crossan and Apaydin (2010). Birkinshaw et al. (2008) attach similar importance to motivation and the facilitating circumstances it can create and dedicate an entire phase in their innovation process to it. In general, scholars agree that leaders need to be aware of their leadership styles and their effects on the organization's innovation drive (Shanker

et al., 2012; Vaccaro et al., 2012). This impact should be directed toward fostering a climate which allows employees to consider innovating and adapting innovative practices (Vaccaro et al., 2012). A study by Vaccaro et al. (2012) examined the influences of transformational and transactional leadership on organizational innovation. Transformational leadership as established by Bass and Avolio (1994) is based on intangible factors such as motivation and inspiration rather than on tangible factors like rewards and punishments as it is common in transactional styles. The former was found to make a positive contribution. However, transactional leadership shows helpful indications, too, when team members use novel methods to achieve the targets set for the transaction (Vaccaro et al., 2012). Regardless of approach, the leaders must establish and articulate the necessary strategy and goals and support the organization in its pursuit of innovation (Denti & Hemlin, 2012).

2.1.3.2 Managerial Levers

As mentioned above, the determinants grouped under the managerial levers are derived from the theory of the resource-based view of the firm (Barney, 1991; Barney et al., 2001; Wernerfelt, 1984) and the concept of dynamic capabilities (Teece et al., 1997) - two concepts that deal with achieving competitive advantages as a firm. The resource-based view of the firm argues that a firm's resources have the potential to influence potential competitive advantages more than mere product or cost differentiation can (Barney, 1991). Hence, firms should put emphasis on building and developing resources that support the strategic long-term objectives. These resources can be both intangible and tangible and can include management expertise, organizational processes and acquired knowledge (Barney, 1991; Barney et al., 2001). Dynamic capabilities are defined as a "firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments" (Teece et al., 1997, p. 516), which is especially important in the field of innovation. This complements the resource-based view as it stresses the capabilities of using the given resources in a business environment. Crossan and Apaydin (2010) name five types of levers which are impacted by these principles which can be seen in Figure 1 and are assumed to be the foundation for innovation processes. To start with, an innovation strategy is defined as a framework which guides decision-making regarding future developments in a company (Katz et al., 2010). This can affect the corporate strategy as well as new product or market developments in relation to its competitive environment (Dyer & Song, 1998). Varadarajan (2018) defines it as "an organization's relative emphasis on different types of innovations" (Varadarajan, 2018, p. 161), which links it back to the dimensions discussed in section 2.1.1. Hence, it helps in allocating resources to innovation to achieve organizational goals, which directly links to the second lever, too (Katz et al., 2010; Pisano, 2015; Varadarajan, 2018). Thus, if defined correctly and executed well, it then helps building or maintaining competitive advantages (Anthony et al., 2006). Depending on the immediate objectives of the firm, a strategy can be proactive, active, reactive or passive (Dodgson et al., 2008). A proactive approach aims to establish leadership as a first mover in the market, often driven by collaborative approaches (Dodgson et al., 2008). Being active means following soon, but not leading by objective, while employing a reactive strategy means following a long time after. A passive strategy only integrates innovation when it becomes inevitable by market standards. Generally, the accepted risk ranges from high to none across the strategies, depending on the point of innovation adaption (Dodgson et al., 2008). However, for any functional innovation strategy to be successful, companies and their managers need to ensure that it is aligned with their overall corporate strategy in order to balance value creation and value capture (Crossan & Apaydin, 2010; Randhawa et al., 2016).

Besides strategy, the lever of structure and systems refers to aspects regarding the organization, such as its affinity to innovation, the standardization of processes and employee counts (Crossan & Apaydin, 2010). The fourth lever of organizational learning and knowledge management is twofold. On the one hand, it is about enabling employees to pursue innovative projects, accepting failure as part of the learning process, and encouraging experimentation. On the other hand, it is about implementing knowledge management systems which support project initiation and sound decisionmaking (Crossan & Apaydin, 2010). Generally, scholars agree that knowledge management of high quality has become critical for successful organizations and innovation initiatives (Mol & Birkinshaw, 2009). In accordance, a knowledge-based view extends the previously mentioned resource-based view (Grant, 1996). For a firm, it is important that knowledge is not only collected but also shared. Hence, the author of the concept emphasizes the transferability of knowledge within a firm. When knowledge is shared, it needs to be processed by the recipient, which is why the view is closely linked to the concept of absorptive capacity (Cohen & Levinthal, 1990). Absorptive capacity is initially defined as "the ability of a firm to recognize value of new, external information, assimilate it, and apply it to commercial ends" (Cohen & Levinthal, 1990, p. 128). Of course, this depends on the individuals' capacity. Later, scholars build on this view and stress that the capabilities include routines and processes and link the concept back to dynamic capabilities (Zahra & George, 2002).

Finally, organizational culture is the fifth lever, which is primarily driven by leadership, a vision, and an attitude towards risk (Crossan & Apaydin, 2010). Others call with innovativeness (Wang & Ahmed, 2004).

2.1.3.3 Business Processes

The determinants of innovation, which are mentioned under business processes, are supporting processes that can be found within the organization. The framework names initiation, portfolio management, implementation, project management, and commercialization (Crossan & Apaydin, 2010). Initiation starts with processes for opportunity identification and decision-making processes to determine which opportunities are to be pursued. This includes the decision on whether an innovation is to be generated or adopted (Gopalakrishnan & Damanpour, 1997). Implementation and project management are the logical steps following the prior and guiding the innovation projects to the market, at which point the final process of commercialization is needed (Crossan & Apaydin, 2010). A firm is usually required to combine exploration and exploitation of innovative opportunities (Crossan & Apaydin, 2010).

2.2 Innovation in Sport Organizations

The following review's literature was compiled by searching various academic databases, such as Elgar Online, Emerald Insight, ScienceDirect, JSTOR, Scopus, SpringerLink and Taylor & Francis Online. To identify relevant publications on innovation in professional sports, Boolean search strings such as *innovation AND* (sport OR sports OR football) and variations thereof were used in the advanced search functions. The results were screened for a thematic fit. Those concerned with innovation regarding sports equipment, medical topics or (physical) education were discarded after a brief screening of titles and abstracts. A list of journal papers and chapters was complied. The volume of papers was then screened regarding the mention of innovation in title, author keywords or abstract. A total of 75 papers out of 115

publications fulfilled these requirements. Table 1 shows the journals, which published a minimum of three papers in the broader thematic field. It remains to be pointed out that a considerable share of the literature on innovation in sports, and especially in professional sports, is not published in journals but in books.

Table 1: Top 8 Journals Publishing Research on Innovation in Sports

Journal title	No. of papers	% of papers
European Sport Management Quarterly	11	14,7%
Innovation: Organization & Management	6	8,0%
Journal of Business Research	5	6,7%
Sport Management Review	4	5,3%
International Journal of Sports Marketing and Sponsorship	4	5,3%
Sport, Business and Management	4	5,3%
Journal of Sport Management	3	4,0%
Managing Sport and Leisure	3	4,0%

2.2.1 The Development of Sport Clubs into Businesses

Innovation in sports has come a long way as the industry develops to be more professional and business-focused (Potts & Ratten, 2016). Today, sport organizations have moved beyond their traditional role as mere tools to meet the competitive challenges of sport (Andersen & Ronglan, 2015). Since the 1990s, professional football clubs have undergone a profound transformation, which affects all three primary business segments: the football team, premises, and brand extensions (Breitbarth & Harris, 2008). This resulted in football being a substantial and highly competitive market, which is worth billions (Dimitropoulos, 2011). This evolution, however, is underpinned by a fundamental belief: Conventional business acumen is often sacrificed at the expense of the priority given to the game itself (Doloriert & Whitworth, 2011).

Within the sphere of professional sports clubs, a recurrent predicament arises: the delicate balance between achieving and preserving financial stability and maintaining high sporting performance standards (Fühner et al., 2021). An intricate interplay between success on the field and financial viability surfaces, highlighting the seemingly correlated relationship between winning and profitability (A. C. T. Smith & Stewart, 2010). Innovation emerges as an integral function within the sports sector, assuming a pivotal role in determining its future paths (Gerke et al., 2021). Based on

their research, some scholars aim to bring innovation in the form of new business models or new markets to the attention of football clubs to strengthen their competitive position and decouple financial success from sporting success (Holzmayer & Schmidt, 2020). Moreover, the discourse surrounding sports clubs calls for a perspective which acknowledges the clubs' corporate nature, aligning them with a commercial enterprise model (Hammerschmidt et al., 2021). So, while professional sports organizations now retain elements common to conventional businesses, they also embody distinctive features that demand nuanced considerations (A. C. T. Smith & Stewart, 2010). Hence, scholars agree that recognizing sport as a business venture is essential, yet, initiating radical change within this inherently conservative institution poses challenges due to the deep-rooted resistance that often accompanies change (Stewart & Smith, 1999). Still, the commercialization of football in the recent decade accentuates its ties with its community, the wider society, and its consequent transformation into a business operation (Ratten, 2020b), meaning that, notwithstanding their commercialization, these football clubs retain an important social standing, underscoring the nuanced nature of their existence (Hammerschmidt et al., 2021).

Today, traditional business and professional sports organizations share several similarities, however, there are still some distinctive attributes (Stewart & Smith, 1999). Sports clubs – in contrast to most businesses – rely on their fans, who identify strongly with the clubs and expect them to provide experiences, entertainment and interaction (A. C. T. Smith & Stewart, 2010). Historically, spending by these fans has provided a large portion of a club's revenue streams but in light of COVID-19, clubs realized more that they must be innovative to maintain these streams (Bond et al., 2022). And while some sports organizations, such as the US-based National Basketball Association (NBA), have managed to reduce the impact of physical match day sales (Santomier et al., 2023), without their fans, most clubs' revenues would collapse.

As the landscape of sport organizations continues to evolve and diversify, the distinction between profit-driven endeavors and non-profit entities becomes significant. While for-profit organizations harness innovation to enhance profit margins and customer loyalty (Kozma & Teker, 2022; Ratten, 2020b), non-profit entities grapple with their own priorities (Wemmer & Koenigstorfer, 2016). However, while the authors observe that innovation is not among the top priorities in non-profit sport organizations, it still finds its application (Wemmer & Koenigstorfer, 2016; Winand et al., 2016). This contrast sets the stage for a comprehensive exploration of

the multifaceted dimensions of innovation within the context of sport organizations, investigating the tensions between commercialization, tradition and success.

2.2.2 Motivation for Innovation in Sport Organizations

Football clubs operate within a dynamic environment, where multifaceted motivations drive clubs into leveraging innovation. Especially since the COVID-19 pandemic, clubs that are heavily reliant on matchday income are compelled to proactively conceive novel approaches to sustain cash flow, particularly in the face of evolving market dynamics (Bond et al., 2022). Recognizing the significance of future preparedness, the drive to enhance football firm performance is propelled by the imperative to lay a robust foundation for sustained success (Fühner et al., 2021). The disruptive impact of the COVID-19 crisis on football clubs' financial stability is evident, rendering liquidity concerns existential and underlining the need for proficient financial management (Hammerschmidt et al., 2021).

The unique entrepreneurial potential inherent in football is underscored as a valuable resource for clubs, particularly during economic downturns, where innovation can offer a pathway to navigating challenges (Hammerschmidt et al., 2021). The global pandemic has acted as a catalyst, accelerating certain tendencies within sport (Hedenborg et al., 2022). Amid this transformative landscape, the call to harness business innovations gains prominence, steering clubs toward sustainable operational models (Kozma & Teker, 2022). The interruption caused by the pandemic provides an opportunity for profound reflection and transformation of the sporting experience, thereby bringing innovation into spectator sports (Majumdar & Naha, 2020).

In the wake of the pandemic, sport entities have been compelled to recalibrate their market strategies, accentuating the importance of innovative approaches (Ratten, 2021a). The trajectory of football clubs' growth and profitability hinges on strategic innovations that strengthen both competitiveness and financial viability (Ratten, 2020b). The need for a more innovative business approach, coupled with enhanced societal interactions, underscores the multidimensional nature of innovation within football clubs. On the flipside, the negative consequences of stagnation, impacting revenue generation and sponsorships, are pointed out by Mastromartino and Naraine (2022). Within this, innovation emerges as a strategic imperative to attract sponsorship investments, raise membership counts, diversify audiences, and elevate spectator

numbers to boost revenue streams (Newell & Swan, 1995). Entrepreneurial undertakings and innovation are depicted as vital mechanisms to navigate unpredictable change and ensure the continuity of the sport industry (Radaelli et al., 2018).

In a rapidly evolving landscape, the foundation of sports organizations' success is built on their ability to continually innovate, thereby attracting and retaining a loyal customer base (Newell & Swan, 1995; Rundh & Gottfridsson, 2015). The paradigm of globalization and the growing adoption of market economy principles accentuate the indispensability of innovation as a bedrock for the success of professional sport organizations (N. L. Smith & Green, 2020). The interdependent relationship between strategy and innovation is underscored, with competitive advantages arising as a product of strategic innovation efforts (Tjønndal, 2016).

The essence of innovation's value is underscored by its capacity to directly enhance performance when aligning with customer needs (Wemmer et al., 2016). Conforming to this notion, sport managers are poised to increase consumer satisfaction through innovative practices, anticipating enduring market performance gains (Yoshida et al., 2013). As the pursuit of consumer loyalty remains a primary goal, the development of novel products and services emerges as a pivotal mechanism for achieving this strategic aim (Yoshida et al., 2013).

In conclusion, the motivations underlying innovation in football clubs are manifold, ranging from financial stability and strategic preparedness to adapting to transformative disruptions and capitalizing on the inherent entrepreneurial potential, which the sport industry possesses. The dynamic interplay between innovation and diverse objectives underscores the multifaceted nature of football clubs' innovation strategies, positioning them as essential mechanisms for sustainability, competitiveness, and audience engagement.

2.2.3 The Outcomes of Innovation in Sport Organizations

The domain of innovation outcomes within sport organizations encapsulates a diverse array of projects that encompass not only the external perspective of products and services but also the internal side with business model and process innovation. This recognition is exemplified by the shift from perceiving the core product of football

clubs as the match itself to conceptualizing it as an experiential offering tailored to the customer (Forslund, 2017). Sport innovation is found to be remarkably diverse, spanning social, technological, commercial, community-based, and organizational dimensions (Tjønndal, 2017). Commercial innovation, in particular, assumes centrality as businesses catalyze change in sport, whether in the form of product innovations or process-based adaptations (Tjønndal, 2017). On the flipside, social innovation, intertwined with the development of new sport services, emerges as a cornerstone for non-profit sport organizations, accentuating their commitment to creating value for users and stakeholders alike (Corthouts et al., 2023; Winand & Hoeber, 2017). In addition, within these organizations, scholars identified an emphasis on process-related innovations, reflecting their strategic focus on enhancing administrative efficiency rather than technical facets (Hoeber et al., 2015). Moreover, a tendency towards incremental innovation is observed within non-profit sport organizations, where novel adaptations occur within the existing operational framework (Hoeber et al., 2015).

In sport, innovation outcomes are inherently linked to service and product innovation. The merging of sports experiences at events and on media devices underscores the dynamic dimension of service innovation, while product innovation spans a broad spectrum from equipment to clothing (Potts & Ratten, 2016; Tjønndal, 2017). Furthermore, professional clubs are observed to engage in social innovation and sport for development (Webb et al., 2023). Core trends underscore various types of innovation, ranging from new products and processes to organizational structures and marketing techniques, which collectively shape the contemporary landscape of sport (Pounder, 2019).

The emergence of innovation is not confined to tangible products but extends to shifts in industry models. Innovations manifest at both organizational and team levels, with instances such as the internationalization of leagues and the adoption of new sports apparel to enhance performance (Ratten, 2016). The ongoing pursuit of products catering to evolving market needs and a heightened emphasis on customer experiences underscore the dynamic and multifaceted nature of innovation within the sport industry (Ratten, 2020b). A polarizing example of this is the introduction of sports betting (Stadler Blank et al., 2021).

Examining the intricate interplay between innovation and business models, particularly within the context of football clubs, underscores the extent to which innovation acts as the backbone for diverse revenue streams. Variability in business models, from digital to analog focused, highlights the diverse innovative approaches harnessed by clubs (Ratten, 2020b). The impact of digitalization is observed as it brings on hybrid business models, coordinating the complexity across diverse sectors (Santomier et al., 2023).

Nurturing competitive advantage remains a focal point for sport organizations, as industry-level innovations in business models stand out as potent vehicles to drive organizational growth (Liu et al., 2022). This interdependence between innovation and competitive advantage is further substantiated by the capacity of technological solutions to fuel new experiences, connect communities, and introduce growth strategies (Petrović et al., 2015). Yet, despite the wave of digitalization sweeping through Premier League clubs, a nuanced scenario emerges, showing that although plenty of digital innovations are implemented, the clubs have yet to utilize them further before they would substantiate complex business model innovations (Kozma & Teker, 2022). Other studies on business model innovations in football can be found in the literature. Liu et al. (2022) point out the above-mentioned success factors for sport organizations after studying the Chinese Super League. Still, the majority of European football clubs is found to be rather inactive on the innovation front (Buck & Ifland, 2023). Overall, however, there is limited research on business model innovation in football (Rohde & Breuer, 2017).

Beyond digital innovation, a holistic approach emerges as clubs explore sustainable avenues to mitigate their environmental impact (Kozma & Teker, 2022). Additionally, a tapestry of innovation types surfaces, catering to the interests of club stakeholders, managers, and coaching staff, with a strong focus on data-driven game planning and operational efficiencies (Kozma & Teker, 2022).

2.2.4 The Process of Innovation in Sport Organizations

The innovation process within sport organizations, spanning federations to clubs, is a multifaceted endeavor characterized by a plethora of drivers, difficulties, and interdependencies. The imperative for a multilevel approach that accommodates individual, dyadic, team, and organizational perspectives underscores the intricacies

of sport innovation management (Peachey et al., 2015). Yet, it is scarcely investigated, and researchers call for further contributions within all dimensions of the process of innovation (Hoeber et al., 2015; Ratten, 2016, 2020b). From this review, it becomes noticeable that the current state of research primarily discusses three dimensions of the process of innovation, namely drivers, sources and locus.

To start with, it is integral to the innovation process that customers are recognized as pivotal contributors, as their perceptions of clubs' activities and innovative potential are integral for the general adoption of those (Behnam et al., 2022). Beyond that and beyond the microcosm of individual clubs, central agencies such as FIFA and the DFL emerge as influential stakeholders that influence decision-making and implementation of innovative technologies especially across the industry (Beiderbeck et al., 2023; Matz et al., 2022). Furthermore, institutional pressures, both societal and technological, converge to drive innovation within sport organizations, caused by the demand for enhanced service quality, professionalism, and product sophistication (Hoeber & Hoeber, 2012). Recent research shows digitalization has emerged as a major driver (Santomier et al., 2023). Additional central themes are pointed out by Hoff et al. (2023), reflecting the multifaceted nature of innovation drivers: external pressures, organizational culture, and internal leadership. However, barriers to innovation are unmistakable, including resistance to change as means to maintain the familiar traditions, the challenging management of intangible resources, and limited knowledge, requiring strategic measures for effective innovation management (Hoff et al., 2023). In the end, it more often than not is the market and its opportunities which drive innovative initiatives in sport organizations rather than the scarce and limited resources they possess (Newell & Swan, 1995).

When it comes to the sources of innovation and information thereof, several are elaborated. The significance of spectators within the football ecosystem is underlined by Bond et al. (2022), challenging clubs on how to integrate these integral participants into the innovation process. Research by Buser et al. (2022) underscores the importance of examining value co-creation approaches within sport ecosystems, focusing on the active, collective contribution by the actors to the network's value. This so-called Sport Ecosystem Logic emphasizes collaborative resource integration on sport engagement platforms as a catalyst for value co-creation (Buser et al., 2022). Anecdotally, scholars find that sport managers are generally willing to engage in joint efforts (Ratten et al., 2021). Likewise, sport organizations are found and encouraged

to enter collaborative alliances, external relationships, and community engagement, all of which are essential strategies to access new innovation-related knowledge and enhance organizational innovation capabilities (Hoff et al., 2023). Ferreira et al. (2020) suggest that sports organizations turn to alliances with universities and educational institutions to foster education, which will strengthen the sports ecosystem.

Potts and Thomas (2018) find that user innovation emerges as a distinctive facet of technological change, underscoring the role thereof in shaping the evolution of sport. The involvement of external actors surfaces as a pivotal determinant, underlining the networked nature of innovation (Hoeber & Hoeber, 2012). Hence, organizations should aim to capitalize on fans as external sources of innovation, particularly from their own customer base (Behnam et al., 2022).

Intricately positioned within a broader sport ecosystem, sport organizations serve as engagement platforms rather than mere producers of outputs (Buser et al., 2022). The German Bundesliga is identified as a sport ecosystems in that sense (Matz et al., 2022). The collaborative nature of the sports network is evident as stakeholders collaboratively influence innovation, leveraging external relationships, startups, and venture capital financing to shape development (Ferreira et al., 2020). Pounder (2019) finds that an ecosystem is not only potent but needed to connect industry stakeholders to foster collaboration. Notably distinct from conventional industries, innovation in sport often originates from users and consumers, as highlighted by the roles of sport participants and fans (Franke & Shah, 2003). Ratten (2016) finds that, as sport organizations navigate the dynamic landscape, a dual emphasis on formal and informal networking events emerges, which emphasizes the role of innovation communities and ecosystems in fostering innovation even more. The pivotal role of external and internal information sources and the shift towards open innovation underscores the dynamic nature of sport innovation ecosystems (Ratten, 2020b, 2020a). Importantly though, the changing ecosystem dynamics, bolstered by economic and societal pressures, accentuate the sport industry's inherent reliance on innovation as a driver for sustained growth (Ratten, 2016).

Besides, conceptual foundations such as innovation ecosystems and open innovation offer viable avenues for resource-constrained organizations seeking external inputs for innovation endeavors (Forslund, 2017). Knaus and Merkle (2020) state that open innovation emerges as a potent tool for sport organizations to tap into the collective

intelligence of fans, thereby elevating competitiveness and enriching the value proposition. The link between community involvement in open innovation approaches and fan loyalty gains prominence, underlining the potential of collaborative innovation (Knaus & Merkle, 2020). The pandemic-induced landscape has underscored the need for visionary leadership, proactive engagement with ecosystems, and the empowerment of fans as drivers for innovation in the face of challenges (Liu et al., 2022; Majumdar & Naha, 2020).

Ratten (2020b) identifies a trend which shows clubs adopting open innovation in their processes as it fosters co-creation within the innovation ecosystem. The pursuit of continued growth through innovation, in parallel with the evolving digital landscape, underscores the imperative for a change in attitude and mindset regarding innovation (Ratten, 2020b). A case study on the Barça Innovation Hub notes that these knowledge limitations regarding these evolutions are precisely where open innovation becomes essential for innovation strategies (Monteiro et al., 2020). As much as for profit-oriented organizations, this dynamic warrants an effort to develop the capacity of sport organizations, that operate in the non-profit space, in open innovation and enhance their overall innovativeness (Delshab et al., 2022). For them, the inherent complexity of the sport ecosystem necessitates a comprehensive understanding of innovation processes and collaborative mechanisms, allowing them to harness innovation as a strategic tool for long-term sustainability and success (Newell & Swan, 1995; Wemmer & Koenigstorfer, 2016).

2.2.5 Determinants of Innovation in Sport Organizations

Just as there are critical factors, or determinants, for innovation in conventional businesses, there are distinctive catalysts shaping innovation in sport organizations.

In terms of leadership and organizational capabilities, innovative leadership and dynamic capabilities appear to have a positive influence on sport organization's outcomes (Harris et al., 2021). Besides, the nuanced relationship between sport managers' technological understanding and their entrepreneurial behavior, and successful technology adoption is highlighted (Ratten, 2019). Scholars find that staff who show more openness toward newness and a more positive attitude towards innovation will influence an entire organization's innovativeness more than the structural characteristics it portrays (Corthouts et al., 2022; Winand et al., 2016;

Winand & Anagnostopoulos, 2017). These kinds of attitudes should be encouraged by the leadership, which is why the integral role of innovative leadership in fostering creativity and innovation is recognized (Pounder, 2019; Skinner et al., 2018; Winand et al., 2016). This is very much in line with the theories discussed earlier. Scholars suggest that organizational strategies, which include workshops and training, can play a decisive role in generating and encoding innovative ideas (N. L. Smith & Green, 2020).

In the context of football clubs, a correlation between the level of competition and the degree of innovation is evident (Escamilla-Fajardo et al., 2019). Nevertheless, the adoption and assimilation of innovations are strongly dependent of organizational resources covering time, funds, sponsorships, and administrative support (Ferreira et al., 2020). Sport federations, conscious of their resource limitations, tend to adopt a reactive approach to innovation, relying on the knowledge and expertise of their members to generate new ideas (Franke & Shah, 2003). Factoring out these limitations, however, the sport industry's dynamic and proactive nature is reflected and the close relationship between innovation and risk-taking within the sports industry becomes evident (Ratten, 2010). Hence, the alignment of innovation programs and business activities is highlighted for clubs to maximize any innovation's impact (Ratten, 2020b).

Furthermore, the selection of innovation models becomes pivotal for football clubs to harmonize innovation with overall business strategies and enhance the global competitiveness (Ratten, 2020b). To leverage innovation effectively, clear innovation goals are crucial as the selected strategies can potentially alter the act, consumption and organization of sport (Tjønndal, 2016).

The entrepreneurial competence of sport organizations emerges as crucial in driving innovation and venture creation (Mohammadkazemi et al., 2016). The alignment of structure and systems with innovation endeavors is emphasized to ensure that bureaucratic changes do not oppress future innovation potential (Newell & Swan, 1995). The role of innovation capability in enhancing competitiveness is acknowledged, highlighting the imperative of securing resources and diffusing technical innovations (Newell & Swan, 1995). Strategic innovation strategies are underscored as vital for fan engagement and income generation (Parnell et al., 2021).

As knowledge distribution underlies sport innovation, sport organizations are encouraged to foster knowledge management, both internally and externally, while leadership commitment is essential for its application (Doloriert & Whitworth, 2011; Hoeber et al., 2015; Hoeber & Hoeber, 2012; Ratten & Babiak, 2010). The sports industry's dynamic landscape necessitates ongoing education and training to facilitate the progress and diffusion of technical innovations (Beiderbeck et al., 2023). Especially due to this diffusion, knowledge management emerges as a central driver of innovation within sports organizations (Callejo & Forcadell, 2006). The adoption of these practices underscores the significance of fostering a culture of continuous learning and knowledge sharing (Delshab et al., 2022). To ensure that the shared knowledge will be accessed, utilized and applied efficiently, both dynamic and absorptive capabilities must be acquired by sport organizations (Ratten, 2016, 2021b).

As clubs are primarily serving the fans, their proactive involvement emerges as a critical determinant. The utilization and transformation of customer knowledge into innovative services become critical in incentivizing adoption within the fan and enriching the innovation ecosystem (Behnam et al., 2022). Customer knowledge management strategies offer a promising avenue for sports clubs to capitalize on external sources of innovation as mentioned previously (Behnam et al., 2022). Hence, the introduction is advocated as a strategic process to facilitate innovation.

Further down the process path, Hoeber and Hoeber (2012) find that involving external parties becomes a key factor for successful implementations. Besides, as more innovation projects are pursued, new methods of integrating them must by identified by football clubs (Ratten, 2020b). Finally, the trajectory of innovation adoption is significantly influenced by the fans' ability to adopt new offerings (Almudi et al., 2018). This must be considered during the integration of innovations, when they are aimed at consumers (Almudi et al., 2018). This is imperative where innovation, especially the technological kind, needs to strike a balance between novelty and the preservation of traditions in sport (Beiderbeck et al., 2023).

It can be said that determinants of innovation in sports comprise several dimensions, among which are leadership, resource allocation, organizational culture, knowledge management and fan influence. Still, gaps in the research remain as these domains are scarcely explored.

2.2.6 Research Motivation

In conclusion, the exploration of sports innovation has emerged as a significant focus within business research, unveiling a dynamic landscape characterized by various dimensions of transformation. However, as scholars dive deeper, several calls for further investigation have surfaced, highlighting both the progress made and the uncharted territories that remain. Notably, while the study of sports innovation has gained momentum, the literature still stands fragmented, necessitating continued efforts to bridge gaps and establish cohesive frameworks (Ferreira et al., 2020). A critical gap exists in examining open innovation within the sport industries, indicating the potential for future research to workout novel dimensions of innovation (Gerke, 2016). The central role of innovation in the sports sector underscores the importance of exploring its multifaceted implications more extensively (Gerke et al., 2021).

Knowledge creation, management, and innovation within the context of sports organizations have been relatively underexplored, signaling a need for research that draws on both knowledge management and innovation to enhance the understanding of effective sport management (Girginov et al., 2015). Further inquiries into the specifics of organizational routines and processes that constitute dynamic capabilities in sport management are warranted to unlock insights into how these capabilities foster innovation (Harris et al., 2021). The process of innovation, encompassing its sources, drivers, direction, and management within sport organizations, should continue to be a focal point of future research endeavors (Hoeber et al., 2015). Hoff et al. (2022) propose a research agenda to conceptualize sport event innovation, serving as a guiding framework for researchers.

Despite a growing interest in innovation management within the sports context, a considerable gap remains in terms of both conceptual and applied analytical understanding thereof (Girginov et al., 2015; Potts & Ratten, 2016). While innovation management is well-documented, a distinct lack of research from a sport-specific perspective indicates an area ripe for exploration (Ratten, 2016). Given the pivotal role that innovation plays in driving business growth and survival, scholars are encouraged to intensify their investigation of innovation management within the sport context.

The intricate processes through which football clubs nurture innovation hold potential insights that can contribute to a comprehension of innovation dynamics (Ratten, 2020b). Further examination of how sport organizations, particularly those deeply

embedded within innovation ecosystems, harness their networks could yield insights into effective strategies for leveraging external resources (Ratten, 2019). Notably, scholarly attention has been comparatively limited when it comes to strategy, strategic management, and innovation in sport, urging for an expansion of research efforts in these domains (Tjønndal, 2016). Investigating new strategies for sport innovation and the implementation of strategic management for that purpose holds promise for shaping future innovations within sports (Tjønndal, 2016).

In the ever-evolving landscape of sports innovation, it is imperative that future research shines light on unexplored aspects. This study will aim to achieve this in its investigation of innovation strategies and management in the German football league Bundesliga.

3 Methodology

3.1 Research Design

In order to gain insights into the understanding of innovation and innovation strategies in German football organizations, a qualitative, explorative research study was designed. As the objective of the study is to find out about the perspectives and approaches of these organizations, expert interviews will be employed to find answers to the research questions presented in Section 1, Introduction. This method was chosen because, especially in business, insights are held by the managers (Adams et al., 2007). As the strategies consist of more than what is observable from the outside, an inside perspective is needed to explore them (Patton, 2002). The use of qualitative interviews will therefore help to investigate assumptions, experiences and motives of those involved in the innovation activities of the respective clubs and organizations (Hannabuss, 1996; Majid et al., 2017).

The interviews will be in-depth interviews of semi-structured nature. A semi-structured interview follows a system of open-ended questions and allows for the necessary flexibility when trying to uncover these insights (Qu & Dumay, 2011). This flexibility is helpful in adapting the questions and their pacing, and allows the researcher to inquire further to improve the recorded responses (Hannabuss, 1996). Semi-structured interviews are commonly referred to as delivering the richest type of information, but understanding and interpretation remain complex (Adams et al., 2007; Qu & Dumay, 2011). A breakdown of the thesis process is portrayed in Figure 3.

Figure 3: Exposition of Thesis Conduct Process

Preparation	Conduction/Data Collection	Analysis
 Defining the study objective Planning the research design Planning the process of participant selection Contacting and inviting participants 	 Developing the interview guide Testing the interview guide Conducting and recording interviews using Microsoft Teams Transcribing interviews 	 Identifying analysis tool Familiarizing with content through multiple readings of the interview transcripts Capturing key themes by creating deductive main categories Forming inductive sub-categories and assigning texts

Source: Own illustration.

3.2 Selection of Participants

When choosing participants for any study, it is important that the selected sample is representative of the population which it attempts to evaluate (Adams et al., 2007).

Furthermore, it is imperative for researchers to disclose the thought-process and decision-making process of the sampling in order to justify the selected sample and build trust in the subsequent results (Reybold et al., 2013). Thus, the following paragraphs will serve exactly that purpose and will showcase the methods and criteria that were applied to the sampling process. The process described is consistent with the sampling approach presented by Robinson (2014), which highlights the following, critical steps: "(1) setting a sample universe, (2) selecting a sample size, (3) devising a sample strategy and (4) sample sourcing" (Robinson, 2014, p. 25).

As the study focuses on the German football landscape and its immediate stakeholders, the total number of possible participants is somewhat limited to the representatives of the thirty-six clubs of Bundesliga 1 and 2, the league's organizing body DFL and the national football federation DFB (DFL Deutsche Fußball Liga, 2023). Other stakeholders such as innovation partners, facilitators or those active in consulting the before mentioned were in consideration initially. However, as the study focuses on the perspective of the clubs and the organizing bodies, which actively engage in football, they were discarded. The organization to be investigated shall ideally show a recognizable effort and drive to foster innovation in the senses that were previously discussed (see Section 2). This aims to ensure the relevance of the club's perspective in contribution to the research. Hence, the first criterium for the selection is notable innovation activity. It is acknowledged that this is somewhat subjective. Moreover, the selected individual must be involved with or employed by one of the above-mentioned organizations to provide the needed insights and perspective regarding the research questions. Hence, the second criterium for participant selection is the current employment by or involvement with a Bundesliga club or related organization. Additionally, the interviewed individual should be in a role dealing with the topic of innovation in their respective organization. For example, this could be the role of an innovation manager or director, a chief innovation officer, product managers or managers within a strategic department, varying between organizations. Hence, this constitutes the third selection criterium. In summary, the criteria for participant selection are:

- 1. The club/organization shows a track record of recognizable innovation activities in the previously defined sense,
- 2. The interviewee shall be a manager (or similar) at a club of the German Bundesliga, at the league-organizing body DFL or the national federation DFB,

3. The interviewee's role shows significant involvement with the field of innovation.

Robinson (2014) suggests a sample size of between three and sixteen participants depending on the scope and timing of the study to ensure that individual cases receive sufficient attention. The more participants can be recruited, the richer the findings can be. The study aims to achieve a certain level of theoretical saturation, which occurs when newly collected information does not appear to yield new insights on the topic (Corbin & Strauss, 2015).

Therefore, purposive sampling is required to ensure non-randomness in the identification of participants who meet the established criteria (Etikan, 2016). In this, the researcher can create a list of prospective interviewees based on the previously developed understanding of the theory (Robinson, 2014). In the beginning, this list of potential interview partners was compiled. This was done by searching the business network LinkedIn for individuals of said organizations who had mentions of *innovation* in their current job title or the description of their current position. Moreover, the researcher screened news and industry reports in relevant magazines and publications to find out about recent innovation projects and collected further representatives in that manner. The experts listed were contacted via the network's website directly or via e-mail when a direct contact existed prior. Once in touch with the experts, snowball sampling helped extend the pool of participants. Snowball sampling is a method used in qualitative research which builds on referrals from an acquired interviewee to new prospects (Biernacki & Waldorf, 1981; Robinson, 2014). It can be considered an alternative as well as a complementary recruitment strategy.

Table 2: List of Interview Participant Profiles

Pseudonym (ID)	Interviewee Position	Duration
Manager 1 (M1)	Innovation Manager	41 min
Manager 2 (M2)	Chief Marketing and Innovation Officer	32 min
Manager 3 (M3)	Director of Digital Transformation & Innovation	40 min
Manager 4 (M4)	Manager Digital Strategy & Innovation	31 min
Manager 5 (M5)	Head of Product and Project Management	39 min
Manager 6 (M6)	Head of Technology	36 min

Following the procedure described, 20 managers were approached and asked to participate. Of these, 10 managers responded, 6 of which positively. As a result, the expert profiles presented in Table 2 were the ones recruited and participated in the study.

3.3 Data Collection

As mentioned above (see section 3.1), semi-structured expert interviews are the methodology used in this study due to their flexibility and the possibility of adjustments during the interviews. Prior to conducting the interviews, an interview guide was developed to ensure thematic consistency across all interviews (Krauss et al., 2009; Qu & Dumay, 2011). Simply put, an interview guide is merely a collection of questions (Kallio et al., 2016; Whiting, 2008), yet careful preparation is necessary to ensure the accuracy of the questions in multiple facets. The guide was developed along the guidance of Whiting (2008), both during and after the literature review phase of the project as recommended by Kallio (2016). Furthermore, Kallio (2016) suggests that the interview guide consists of two levels: The first level elicits the main themes and is enriched by the second level, which provides direction for follow-up questions. Jacob and Furgerson (2015) emphasize that it is important to pay attention to the length of the guide and the interview, especially with managers, as the time available to them is usually limited.

Several elements are commonly suggested by researchers. In addition to thanking participants for their participation, the beginning of the interview should introduce (or reintroduce if explained during the recruiting process) the topic of the study to the participants to ensure a proper understanding of the context (Adams et al., 2007; Jacob & Furgerson, 2015; Robinson, 2014; Saunders et al., 2019). Moreover, relevant aspects regarding the recording and handling of all collected information should be repeated. It is recommended to offer to share the results of the research project with the participant at the beginning of the interview (Saunders et al., 2019). Regarding the main part of the interview, Hannabuss (1996) and Whiting (2008) point out that it is important to ease into the conversation by starting with light warm-up questions. After the introduction, the interview guide will begin to explore the themes of the research questions following the context established in Section 2, which served as a direct reference for the guide. During this section, it is important to avoid closed-ended

questions in order to maintain the flow of the conversation (Hannabuss, 1996). Additionally, appropriate techniques are needed to extract valuable responses (Adams et al., 2007). These include probing questions that ask for clarification, to re-focus the respondent's thoughts or to reflect on the answer given. Kvale (1996) suggests different types of questions which serve various purposes, as shown in Table 3. This was used to develop an effective list of questions for the interviews. The conclusion of the interview should include an opportunity for the participant to contribute further information beyond the questions previously asked by the interviewer (Adams et al., 2007).

Table 3: Types of Interview Questions

Types of questions	Purpose of questions
Introducing Questions	To start the conversation and move to the main interview
Follow-up questions	To direct questioning to what has just been said
Probing questions	To draw out more complete narratives
Specifying questions	To develop more precise descriptions from general statements
Direct questions	To elicit direct responses
Indirect questions	To pose projective questions
Structuring questions	To use key phrases to finish off one part of the interview and
	open up another, or to indicate when a section is completed
Silence	To allow pauses, so that the interviewee has time to reflect,
	and continue the response with significant information
Interpreting questions	Similar to probing questions, to rephrase an interviewee's
	answer to clarify and interpret
Throw-away questions	To serve a variety of purposes, i.e., to relax the subject

Source: Adapted from Kvale (1996, pp. 133–135)

Before conducting the interviews, the interview guide was tested. Adams et al. (2007) urge to trial the questions for comprehensiveness, language and ambiguity. Furthermore, Majid et al. (2017) add that discussing the guide with others provides practice for the interviewer. Thus, the guide was shared to check for the aforementioned aspects. Minor adjustments were then made to the structure and wording. The full interview guide as it was used in the interviews, but translated to English, can be found in the appendix.

The interviews were conducted using the video conferencing tool Microsoft Teams. To ensure accuracy in the subsequent analysis process, video and audio were recorded.

All participants were informed of this both in a written consent form, which they were provided with prior to the interview, and verbally. The file was then transcribed to provide a basis for reconstruction in the analysis (Dresing & Pehl, 2018). The following rules were adapted from Dresing and Pehl (2018) to ensure consistency during the transcription process:

- 1. Interviews are transcribed verbatim, not phonetically.
- 2. Word slurs are approximated to written German. Syntax is retained, even if it contains errors.
- 3. Colloquial particles are transcribed.
- 4. Stuttering is omitted, broken words are ignored. Double words are only recorded if they are used as a stylistic device for emphasis.
- 5. Uncompleted sentences are marked with the termination character "/".
- 6. Reception signals such as "hm, yes, okay", which do not interrupt the other person's other person's flow of speech, are not transcribed.
- 7. A speaker's contribution is given at least one own paragraph. There is a blank line between the speakers. Short interjections are also transcribed in a separate paragraph. A paragraph has a minimum of one time marker.
- 8. Unintelligible words are marked as such with "(unv.)" for *unverständlich*. If a wording is suspected, the passage is put in brackets with a question mark.
- 9. The interviewer is indicated by "I:", the interviewee by the code assigned (from Table 2), to ensure anonymous participation. Further terms were anonymized. Examples can be found in the appendix.

The full transcripts can be found in the appendix.

3.4 Data Analysis

In the data analysis phase of this qualitative study, a structured approach inspired by Mayring (2010, 2014) was adopted. This method allows for a systematic exploration of the data and statements obtained from all seven expert interviews, aiming to identify key concepts and answer the research questions regarding innovation strategies in German football.

Prior to conducting the analysis, the data was subjected to a step of familiarization. This involved multiple readings of the interview transcripts to gain a comprehensive understanding of the content (Guest et al., 2012; Swanson & Holton, 2005).

Drawing on Mayring's work, a two-stage, mixed procedure of deductive and inductive content analysis was applied. First, several main categories were created, here drawn from theory and from the interview guide, in alignment with the research questions, as this is essential to the method (Mayring, 2014). These main categories were designed to capture key themes related to innovation, specifically in German football, and build off the literature review. A coding guideline was established to help assign the material to the main categories (Mayring, 2014). Subsequently, the interview material was coded using the predefined main categories. Each segment of the transcripts that corresponded to a main category was labelled accordingly. Second, the coded material per category is gathered. Inductive category formation is then applied to the material as this method is highly applicable to the explorative nature of the study (Mayring, 2014). The steps taken are shown schematically in Figure 4. The categories which emerged from the inductive section of the applied method will serve as sub-categories in this study.

Step 5 Step 1 Research questions, theoretical background Final coding Step 2 Step 6 Establishment of selection criterion, Building of main categories if useful category definition, level of abstraction Step 3 Step 7 Preliminary coding, new category Analysis formulation or subsumption Step 4 Revision of categories

Figure 4: Steps of Inductive Category Assignment

Source: Adapted from Mayring (2014)

During the coding process, each coded element was either assigned to an existing subcategory or a new sub-category was created. A revision of the sub-categories took place after the emergence of new sub-categories had flattened out. The process was then iterated until completion of the material (Mayring, 2014). Where it was deemed useful, main categories were created. The final main categories and sub-categories found and used for analysis can be found in Table 4. A complete list of coded segments for two segments exemplarily can be found in the appendix.

Table 4: Categories and Sub-Categories used in Data Analysis

(Sub-) Category	Reference
Definition and Understanding of Innovation	Interview guide
 Lack of Clear Definitions 	
 Focus on Digital Innovation 	
Determinants of Innovation	Crossan & Apaydin (2010)
 Absence of Explicit Innovation Strategies 	
 Decentralized Setups to New Structures 	
Organizational Culture	
Innovation as a Process	Crossan & Apaydin (2010)
 Flexibility over Structure 	
 Multitude of Sources and Drivers 	
Innovation as an Outcome	Crossan & Apaydin (2010)
 No Preselection of Innovation Forms 	
 Limited, Feasible Options for Magnitude 	
Opportunities for Innovation	Interview guide
 Change in Mindset and Perception 	
Attractive Partnerships and Financial Independence	
 Advancing Technologies 	
Challenges for Innovation	Interview guide
 Resistance to Innovation due to Tradition 	
 Cost Adversity and Lack of Resources 	
Dependency on Sport Results	

The software MAXQDA was employed to facilitate the organization and management of the transcripts as well as the coded data. MAXQDA provided a platform for efficient data cleaning, categorization and comparison within the dataset (Kuckartz & Rädiker, 2019). To ensure the rigor and reliability of our analysis, sections of the transcript, at random, were coded at least twice. Any discrepancies or disagreements were then investigated by the researcher.

3.5 Limitations of Data Collection

While this study delves into the dynamics of innovation within sports organizations, it is imperative to acknowledge certain limitations that have shaped the scope and depth of data collection. These limitations underscore the unique challenges faced in the research process.

One notable limitation pertains to the size of the participant pool. This study encountered challenges in sourcing participants due to the underdeveloped organizational structures in some of the clubs. The limited number of clubs meeting the selection criteria mentioned in section 3.2 posed constraints on the breadth of potential interview participants.

Furthermore, the availability of interview participants emerged as another constraint in data collection. The timing of the study, coinciding with summer periods and the restart of the football season, presented challenges in securing access to key stakeholders. This potentially led to gaps in data representation, potentially overlooking critical viewpoints integral to understanding the innovation landscape within German football.

Before approaching the findings, it is crucial to keep these limitations in mind. Future research should carefully address these limitations, possibly by diversifying data collection methods to yield a more comprehensive understanding.

4 Findings

In line with the methodology described in section 3.4, the study explores how German football clubs and their managers understand and use innovation, both as a process and in the aspired outcomes. This findings section is structured in alignment with the interview guide and the structure of the literature review framework. The following subsections present the managers' perspectives and the findings to develop a comprehensive understanding of how German football clubs navigate the complex landscape of innovation.

4.1 Definitions and Understanding of Innovation in German Football

Turning the attention to the interviewed managers' definitions and understanding of innovation, three themes emerge, namely the lack of clear definitions of innovation, the focus on digital innovation and the necessity created through the DFL licensing regulations. These themes will now be explored.

4.1.1 Lack of Clear Definitions of Innovation

The first observation finds commonality among the interviewees in the sense that none of the clubs have established a clear, internal definition for innovation. Manager 3 asserts that no definition has been agreed upon, and both Manager 4 and Manager 5 echo this notion.

Now, it's not like we have decided on a definition internally. (Manager 3, Pos. 12, translated)

Manager 2 explains that his club had just discussed the same topic because of its importance. However, the club did not end up defining innovation but rather interpreted it as the culture they want to establish. Manager 1 states that while his club's management sees innovation as a pure tool to generate additional profits by being a first mover, there is only a vague definition stating that the innovation must be entirely new within the Bundesliga market. As a result, the various business units each use their own definitions, united by the objective of profit.

Still, in describing their own definitions and daily applications of innovation, the interviewees show that innovation is perceived as both an outcome and a process in

practice, too. On the one hand, Manager 3 provides an understanding which comprises several forms of innovation as well as the referent. On the other hand, several interviewees describe aspects of the innovation process in their responses. For Manager 5, for example, innovation means engaging with topics, which are new to the market and have the potential to provide added value. The latter aspect is reinforced by Manager 4 and Manager 3. Additionally, Manager 4 views innovation as the implementation of new concepts and ideas and Manager 3 clarifies with regards to the source of innovation:

Where this innovation comes from is irrelevant for the time being. It can come from within the company here. It can also come from the outside. (Manager 3, Pos. 12, translated)

Two aspects are highlighted by the interviewees as critical factors. First, Manager 1 recommends that a common definition is defined before processes are launched to avoid misinterpretation and miscommunication. Second, Manager 3 points to the importance of systemic and proactive management of innovation.

4.1.2 Focus on Digital Innovation

Building on the previous findings, there is a clear tendency for innovation in German football clubs to be primarily focused on digital use cases, thus digital innovation. The observation first taken from the position titles of the interviewees (see Table 2) is confirmed by the accounts of their responsibilities, which are described as "the complete digital department" (Manager 5, Pos. 2, translated), "digital strategy projects" (Manager 4, Pos. 2, translated) or "all projects which have a digital component" (Manager 3, Pos. 2, translated).

One noteworthy discovery is that some clubs' engagement with innovation seems to be influenced by the DFL's choice to include innovation in the Licensing Regulations as this is explicitly pointed out by multiple interviewees. Manager 5 believes that in his club, innovation is born out of necessity because the regulations influence the club's financing, which Manager 3 reinforces. Additionally, Manager 6 states that it feels like clubs are forced to implement innovation structures due to this.

4.2 Determinants of Innovation in German Football

Delving into the next section, the focus will now lay on the determinants of innovation as this category was derived from the theoretical foundation and inductively enriched by the themes which emerged throughout the interview analysis.

4.2.1 Absence of Explicit Innovation Strategies

With a clearer understanding of what innovation means to the clubs, the findings now move on to the topic of innovation strategies. There is a tendency among the respondents that there are no explicitly formulated innovation strategies. Several interviewees express this notion. Simultaneously, it is conveyed that innovation is integral, but subordinate to the clubs' corporate strategies and is therefore considered implicitly.

There is no overarching innovation strategy at [...]. We have a club strategy, which, like any umbrella strategy, is ultimately the point of reference to which the functional strategies at the lower levels are then aligned. And one of the mission objectives of the club strategy is innovation. (Manager 1, Pos. 14, translated)

Similarly, Manager 6 and Manager 4 describe a vision or guiding idea for using innovation in their clubs' activities. Manager 3 notes that they are in the process of conceptualizing their innovation strategy. Manager 2's club is in a similar position, having just defined its club strategy.

In contrast to this, the findings suggest that clubs have well-defined objectives when it comes to innovation. Various approaches emerge covering both extremes – being the first and being the best. Both Manager 2 and Manager 6 alike express the ambition to be market leaders when it comes to digital innovation and mention topics like brand, fan experience, monetization, and infrastructure. This approach prioritizes the added value for all stakeholders and does not initiate a project "just because the first one starts" (Manager 6, Pos. 15, translated). Manager 5 explains a similar approach where the value is nearly exclusively focused on the fan. Manager 1's club, inversely, identified being first to the market as its primary goal, seeing the greatest potential for increased profits. The remaining clubs find themselves throughout the spectrum between the two extremes, expressing a more granular case dependency for their

aspired timings. When asked about their ambitions when it comes to the timing of their strategy, Manager 4 states:

To be honest, we haven't defined that very clearly. If we have an idea that no one else has implemented before us, then we are happy to be the first mover, but otherwise it doesn't hurt us to adapt [...] from others. (Manager 4, Pos. 14, translated)

Manager 2 and Manager 3 share this perspective, preferring to stay in control of the project timelines rather than chasing trends. Instead of being a first mover, Manager 3 considers his club to be a "smart mover" (Manager 3, Pos. 16).

The findings consistently support the notion that the ultimate goal of all approaches is to generate increased club profits. Manager 1 describes how innovation must result in either revenue or revenue opportunities. Manager 6's club leveraged innovation to create more marketable products for the club and the majority of managers mentioned calculating business cases as the foundation for innovation projects, despite acknowledging the unpredictability of revenue in these types of projects.

4.2.2 From Decentralized Setups to New Innovation Structures

Moving on to explore the structures which clubs created to foster innovation, a current shift becomes noticeable as several interviewees mention ongoing developments.

As the interviews provide insights into the structures, a key commonality becomes apparent. Up until recently, decentralized innovation structures dominated the landscape in German football clubs. Manager 1 leads by saying that still every unit is responsible for their own innovation projects, some of them even having dedicated managers within the department. Likewise, Manager 2 considers innovation in his club to be fragmented across units and mentions organizational silos and a resulting lack of communication.

However, at the time of the study, these concerns are being addressed by adjusting the organizational structure and consolidating the projects into one innovation unit.

The idea is to have this strategic innovation team in the future that then reaches out to the different units. (Manager 2, Pos. 28, translated)

A similar intention is observed in the clubs of Manager 3 and Manager 5, where they strive to implement matrix teams which they coin Innovation Hub or Innovation Board, composed of directors and managers alike to evaluate innovative ideas and drive innovation across functions. In this context, the DFL licensing regulations are mentioned again as a force that creates the urgency to restructure. The most pronounced structure for innovation is the one described by Manager 6, where a subsidiary was founded to meet the innovative needs of the club.

Within these structures, the clubs have identified the need for staff capable of driving innovation initiatives. Manager 6 emphasizes the importance thereof in teams, where innovation is initiated and driven from the team level. Manager 2 and Manager 4 point to the need for ongoing education to ensure processes and decision-making at a high level. Furthermore, Manager 1 suggests identifying early adopter mindsets within the organization to increase buy-in and commitment to innovation projects. Similarly, the ability of targeted innovation recognition is highlighted, and clubs are actively looking for personnel possessing these skills.

4.2.3 Organizational Culture with Room for Improvement

The next cluster deals with two more determinants, which, in the perceptions of the interviewees, appear to be closely linked: leadership and organizational culture. On the one hand, the importance of leadership backing is highlighted. On the other hand, a certain culture needs to be built within the organization to enable all stakeholders to be innovative.

This strong backing from our leadership is something we have always felt as a department because it is so important, and it will always be like that. (Manager 6, Pos. 40, translated)

Several interviewees share this sense of importance for various reasons. Manager 4 expects the club's leadership to be able to provide long-term goals to ensure alignment for innovation initiatives. Moreover, Manager 3 aspires to involve the club's board in periodic innovation meetings to determine innovative potentials and get confirmation for decision-making and business plans. Manager 1 even goes as far as to say that one should attempt to identify and convince internal opinion leaders in order to gain leadership backing indirectly.

Building on this, the interviewees highlight the need for leaders to be role models and internal pioneers for innovation. Manager 6 repeatedly mentions the positive influence which the club's managing director has on the process by being the leading advocate for the topic. Manager 1 provides an example from the other end of the spectrum, saying that his department suffers from the inefficient incentivization of its management, which tends to focus on short-term profits when it comes to commercial initiatives. Both of these examples indicate strong differences in the perception and prioritization of innovation and its benefits among leadership groups of German football clubs.

Generally, however, the interviewees report a positive evolution in the mindset and culture that is needed for innovation to flourish. Several aspects are described as critical attitudes. First, a general openness towards innovation is noted by Manager 4, attributed to the fact that stakeholders are increasingly recognizing the benefits thereof. Second, Manager 6's club has benefited tremendously from the ambition to always look for the next marginal improvement in achieving its innovation goals. Third, it is pointed out that mistakes and failures must be perceived as learning opportunities rather than purely taken at face value.

And of course, it can also happen that after an innovation project, the benefits do not materialize in the way you had hoped. But then you also have to have the courage to say, "Okay, the project has failed successfully and we're calling it off." (Manager 3, Pos. 47, translated)

Yet, there remains room for improvement. Manager 3 wishes for better incentives and lighthouse projects for more people to realize that innovative ideas are welcome and offer great opportunities for the clubs. With a similar intent, Manager 2 has put building this culture on his club's immediate agenda and wants to encourage employees to scrutinize as many aspects of their daily environment as possible.

4.3 Outcomes of Innovation in German Football

Turning to innovation as an outcome, further insights are revealed. The findings in this subsection are presented in three clusters, starting with the forms, which show little prioritization. Next, the clubs' limited, feasible options regarding magnitude are

discussed, followed by the success measures and aspired benefits. Lastly, currently relevant topics which were pointed out by the interviewees are summarized.

4.3.1 No Preselection of Innovation Forms

In general, there is a tendency for clubs to forgo predefining what targeted outcomes should looks like in order to remain flexible in their decision making and open for all possibilities. This results in equal prioritization for each form. Rather than using form as the defining dimension, projects are aligned with the club's strategic objectives, so Manager 3.

It has an equally high priority for us. Of course, there are things that are more internally focused - management and processes here - and externally focused, but that has a high value for us in both cases. (Manager 3, Pos. 47, translated)

Other managers report several instances of various forms of innovation, including external ones that directly address their fans' needs and interests as well as internal ones that assist in the delivery of the aforementioned. Manager 5 points out that although there is no ambition for a single, prioritized form of innovation, there often is a typical common denominator for the projects implemented, namely that they are digital.

With regards to the external focus, Manager 1 and Manager 3 mention that these projects typically cater to the clubs' digital services and often focus on delivering them in a fan-centric approach. This underscores the objective of prioritizing fan satisfaction and putting the fans at the center of service innovation initiatives. Still, Manager 5 emphasizes that partners and sponsors should be considered as recipients of these benefits, too. Multiple managers, including Manager 5 and Manager 4 stress the significance of technological innovation to enhance fan experiences and discuss projects ranging from match day ride-sharing options and ticket marketplaces to more recent loyalty programs and collectible items. Innovation in and around the stadium area is mentioned by Manager 2 and Manager 6 whose clubs seek to innovate both physical and digital fan experiences during match days, too. Moreover, the importance of personalization is highlighted by Manager 4, where ongoing efforts aim to tailor

content and digital offerings in ways that enable the fan to use them based on individual interests.

On the more internally directed side of the form dimension, two clusters become evident which can be attributed to process innovation. A third covers innovation in the business model. First, clubs innovate to improve their digital infrastructure, data ownership and incorporation of technology to support business functions. Manager 4 reports that his club is gathering information on comprehensive data collection methods or the implementation of artificial intelligence for various purposes, including communications and media. The same is true for Manager 2, whose department evaluates IT platform innovations, such as customer data collection, too. Second, an innovation effort is aimed at boosting data-driven decision-making in the performant side of sport, for example in player selection or training load management. However, there are differing perspectives among the interviewees here. Several clubs have shifted sport-related innovation to departments that are more closely related to the athletes and coaching, while Manager 2's club stands out for having a department that still deals with these aspects.

Lastly, the final, observed embodiment of innovation is in business model innovation, used by clubs to tap into new revenue streams. Manager 1 and Manager 6 explicitly state that business model innovation is part of their departments' responsibilities. In the case of the latter and Manager 5 as well, there is even an ambition to act as a white-label software provider, after solutions have been developed for and implemented in the club. Another frequently mentioned novelty in business models here are e-sports units, which have become increasingly popular in recent years.

In the context of the discussed forms of innovation, a concise overview of current topics and projects as mentioned by the interviewees in in order. For multiple reasons, including the DFL licensing regulations and the novel nature of innovation structures, several topics are consolidated in the responsibilities of the innovation units. These include sustainability, women's football, internationalization, and education. According to Manager 5, it is highly logical to keep sustainability in the same discussion as topics related to digital innovation, as these allow a convenient application of solutions that address sustainability. Similarly, Manager 1's department is also directly involved in sustainability. Women's football and gender equality are

mentioned by Manager 1 and Manager 6 as an extension of the clubs' core competencies.

4.3.2 Limited, Feasible Options for Innovation's Magnitude

Moving on to the next theme, the attention first rests on the innovation's magnitude. While there are split intentions on whether disruptive innovation is aspired, it appears that all clubs aim to leverage innovation to incrementally improve their offerings and processes.

We are not aiming to introduce any disruptive innovations. I don't think we can do that as a non-technology provider either, but in any case, we always want to introduce an innovation that hasn't been seen before in our competitive environment. (Manager 1, Pos. 73, translated)

Other managers concur with the idea that incremental innovation is needed to continually develop products and platforms, for example for a more convenient fan experience as mentioned by Manager 5. Manager 6 supports this claim and points out that this approach is common in the digital space, which Manager 4 reinforces. Furthermore, it is noted that football clubs likely lack the ability to create radical or disruptive innovation as it is not the focus of the organizations.

Therefore, clubs appear to concentrate on the referent dimension as opposed to the magnitude, as evidenced by the anchor example. Several managers state that they compare their offerings to those of other teams in the league in order to ensure differentiation. However, although clubs pay attention to the immediate competition, it is not their primary concern. Manager 6 says that his club strives to look past the league's boundaries, which is mirrored by Manager 5. Manager 3 emphasizes the need to widen the perspective to ensure a diverse offering.

4.3.3 Success Measures and Aspired Benefits

Having discussed the dimensions of the targeted outcomes, the findings now transition to what the perceived benefits are, and if and how they are measured. Generally, the benefits can be clustered into three categories: financial, brand and partnership.

I'd say we have [branding] as an unofficial goal, because of course we say quite clearly that innovation makes you sexy. And we notice that, too. We get so much feedback from outside and also confirmation from official bodies such as the DFL. (Manager 1, Pos. 60, translated)

Manager 4 cites increased reach and engagement on the digital channels as two direct success measures of their innovation projects, while monetization is listed as an indirect third one. Manager 2 utters a similar idea, stating, when it comes to branding, it is sensible to innovate in a fan-centric way to be perceived as a modern brand. Although this is not yet in the key objectives as defined by his club, Manager 1 deems it highly important and petitions to include it in coming periods.

Nevertheless, financial measures tend to be the most important for football clubs. Depending on the project, some managers, like Manager 3, compare revenue performance before and after implementation, while others evaluate strictly the business case for profitability, as mentioned by several interviewees. Nonetheless, both Manager 2 and Manager 6 emphasize the importance of allowing time for a concept or testing period, particularly with innovation projects. However, once the projects surpass that phase, there must be clear financial indicators. Manager 3 acknowledges that his unit needs to improve its competency in tracking results.

The final measure mentioned by the interviewees is regarding partnership benefits. As football clubs closely work with partners and sponsors, projects are often realized jointly. Hence, tracking the partners' satisfaction regarding jointly implemented, innovative outcomes is of significant importance for the club. Manager 5 says that these projects usually have great benefits especially when there is thematic overlap with the partner's industry, which Manager 2 echoes. However, Manager 6 emphasizes that the club would not realize a project solely as a showcase for the partner but states that the club incorporates partners in specialized events to position them as innovative partners.

4.4 Process of Innovation in German Football

Shifting the focus from outcomes to the process, the findings highlight several relevant strands of observations: Flexibility rather than structure throughout the process,

importance of internal sources and drivers of innovation and the need for broad external inputs.

4.4.1 Flexibility over Structure in the Innovation Process

When it comes to innovation as a process in German football clubs, some interviewees are quick to point out that there is a lack of definition for how innovation projects should be conducted. Manager 1 explicitly states that there is no predefined process for how innovation should take place and Manager 4 echoes this sentiment. Generally, this is in line with the findings of the previously discussed definitions of innovation, where different units define for themselves what is required to successfully innovate. Manager 3 indicates that his implementation of an innovation strategy will focus on the innovation process, which is currently being defined for his club. However, the lack of process definition is perceived as an advantage by Manager 1, who prefers flexibility and possible quickness due to a lack of bureaucracy in the process. According to his experience, a strict process risks and restricts the power of innovation.

Nonetheless, one club stands out with a highly structured innovation and development process, which, in their own assessment, "can keep up with an industry benchmark" (Manager 6, Pos. 32, translated). This includes choosing projects from a continually updated portfolio and conceptualizing the outcome before driving development with internal and external developers, culminating in what Manager 6 considers a regular IT development process.

Another commonality which emerges concerns the direction of the process. Several interviewees mention both top-down and bottom-up directions when it comes to initiating an innovation project or process.

As I said, there is an innovation process that starts with the management board and then works its way down. But there's also a process that, so to speak, listens to all levels from time to time to find out what's new. (Manager 6, Pos. 19, translated)

Manager 6 and Manager 2 explain that the process is initiated via the goals set by the board and then carried out by the respective teams. In contrast to that, Manager 1 reports that innovations are mainly identified in the systems established by the responsible business unit and then prepared and submitted to the board for approval,

which is how it is usually handled in the clubs of Manager 4 and Manager 5, too. Several methods help with initiating the process, among which are trend scouting, benchmarking, and active, frequent desk research on current topics, which help the clubs to stay level with trends and the competition. More details regarding the inputs will be provided in section 4.4.2.

When it comes to the implementation of innovation projects, most interviewees agree that there is no definitive process. For Manager 1, the implementation is highly case-dependent and differs greatly between projects. Hence, it is not possible to generalize whether and which business units, partners or service providers are involved. This view is shared by other managers such as Manager 3 and Manager 5. The former emphasizes that there is a lack of experience within the organization when it comes to larger scale implementations, which is why external providers are involved. The latter points out that the involvement of partners depends on the complexity of the product and the available internal resources allocated to it. Nevertheless, it becomes evident that for internally realized initiatives clubs rely on common project management methods such as agile development, which finds application in three of the sampled clubs. For Manager 4, this helps to validate innovations on a smaller scale before potentially scaling them.

Interestingly, Manager 6's club leverages partners not only to implement projects, but also in the preliminary phase of assessing identified ideas, tapping into their knowledge and experiences to judge their quality, potential, and fit with the club's needs.

4.4.2 Multitude of Sources for Innovation

Shifting the focus to another aspect of the process, several sources for innovation emerge from the responses given by the interviewed managers. These are both of internal and external nature and cover the clubs' employees and fans, as well as their networks and partners. Furthermore, the importance of non-industry inputs and the potential of startups is highlighted.

Internally, the clubs report to engage employees as well as keep close contact with their fans to gather as much valid information as possible. For Manager 6, an opendoor policy and accessibility to the innovation team are crucial in learning about employees' ideas. Manager 3, similarly, regularly solicits input via workshops or suggestion schemes from all departments to fill their project funnel. Furthermore, Manager 5's organization has initiated dedicated working hours for each employee to work on a positively perceived, innovative topic. Further managers assert that a proactive collection of ideas is necessary to identify initiatives that are beneficial to the organization.

When it comes to the fans, clubs appear to apply high value to their opinion as "the customer is the one who pays [the] wages here" (Manager 3, Pos. 19, translated), which is why various systems are in place.

Then it's fan centricity, I would say. (...) So, you really just always look: What are the needs, wishes and challenges of the fans? In order to then simply develop an understanding for that. And also, to hear the feedback from the fans. (...) That's actually one of the biggest drivers for innovation. (Manager 4, Pos. 28, translated)

Manager 2 aims to follow a similar fan-centric approach. Furthermore, Manager 6's club collects fan input, which is evaluated and if feasible, included in further analysis. This is done by other clubs, too, who use surveys, their apps or their service hotlines to gather insights. Manager 2 and Manager 4 have established dedicated analog platforms for fan conversation which generally surround various topics but are used to evaluate innovative initiatives, too. For some topics, Manager 3 employs feedback loops with specific sample groups of fans. Solely Manager 1 stands out, stating that his team is not responsible for fan interaction but for achieving first-mover innovations, for which fan input would likely be too late. Finally, it is reinforced by Manager 4 that customer relationship management tools, which might be part of the innovation outcomes, could potentially play a big role in learning about fan preferences and being able to adapt the innovation process accordingly.

Externally, the before-mentioned trend scouting and benchmarking processes provide a baseline for sources of innovation. By setting up, what Manager 3 referred to as systemic screening, clubs enable a constant flow of ideas and opportunities into their responsible business units. As mentioned, this includes desk research and benchmarking as well as active screening of industry media and newsletters.

Next to their fans, clubs also leverage the knowledge and inputs of another important stakeholder: their partners. Both Manager 5 and Manager 6 emphasize the importance of sourcing innovative ideas from sponsors and partners to identify trends. Since it is often large corporations in these positions, there is potential to benefit from their respective innovation research, so Manager 1 and Manager 2. Additionally, Manager 5 and Manager 6 state that clubs are approached by plenty of companies due to football's general exposure, which provides diverse inputs.

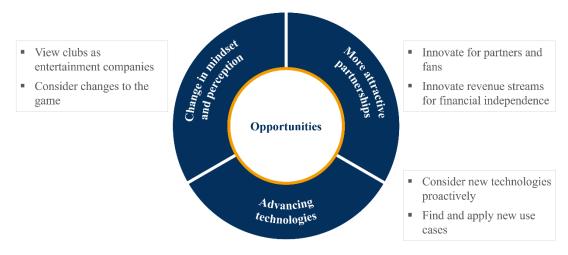
Furthermore, clubs engage in active exchange with their networks. Manager 4 and Manager 6 attribute great importance to building and maintaining a network of potential partners as this can be used as a more informal way of idea exchange. The same applies to Manager 2 who expects increased benefits from this type of exchange in the near future. Efforts to build a network capable of serving this purpose include organizing events like Hackdays (Manager 4) or open innovation challenges (Manager 1) or running startup programs (Manager 1). In addition, several managers underline the importance of attending conferences, especially those exceeding industry and market boundaries, as several managers point out. However, Manager 1 points out that effort and output must have a reasonable ratio to be useful for a football club.

Lastly, several interviewees see potential in collaboration with startups. For instance, the clubs of Manager 1 and Manager 5 actively engage with international and local startup ecosystems, assuming their future-oriented product visions to be good indicators of future value and needs. Manager 6's club even included startup founders within relevant or adjacent industries in their innovation advisory board.

4.5 Perceived Opportunities for Innovation in German Football

Having discussed the various aspects of innovation in German football clubs, several opportunities can be derived from the interviews and are displayed in Figure 5. First, a change in mindset and perception of the own organization is mentioned. Second, opportunities regarding the attractiveness of partnerships are highlighted. Lastly, potential benefits of recent, advancing technologies are briefly emphasized.

Figure 5: Opportunities for Innovation in German Football Clubs



Source: Own illustration.

4.5.1 Change in Mindset and Own Perception

The first opportunity as identified by the interviewees concerns the football clubs' perception of themselves and the mindset and culture which come along with it. Pointed out by two managers alike, clubs need to move on from the traditional view of themselves being pure sports clubs and are encouraged to see themselves as part of the entertainment industry.

The change in thinking from "We're a sports club" to an entertainment company, or "We're a business enterprise" - In our case, I think it's on a reasonable path. And yet I still see potential to emphasize the economic thinking, the "We have to reinvent ourselves"-thinking, even more in order to survive. (Manager 3, Pos. 56, translated)

Manager 4 reinforces this thinking by using it as justification for his club to invest in technologies which aim to help the club keep up with similar industry players.

Expanding on this, Manager 3 and Manager 1 suggest this on an even bigger scale and propose the same for the sport of football as a whole. The interviewees urge to question aspects such as the mode of play or conduct during the game, for example with regards to sportsmanship and speed, which could potentially increase the game's attractiveness, ultimately leading to better ratings, higher willingness to pay on the part of sponsors and thus, greater amounts of money in the ecosystem of football. Manager 5 agrees that football has not yet fulfilled its potential in this regard and even

lags behind other disciplines and sports. Moreover, according to Manager 2, a culture of innovation is needed to allow this kind of thinking in governing organizations before such ideas can get traction and improve the game.

A league-wide, innovative mindset is seen as a potential catalyst for such changes but needs a platform for exchange both within the boundaries of the league and outside of it to involve other sports and industries. Interviewees mention that clubs are mostly willing and open to share their insights. The majority of managers report of bilateral conversations, exchanging potential ideas and partners, and sharing experiences and lessons learned from completed projects. Only Manager 1 stands out by noting his impression of a competitive mindset when it comes to innovative ideas. Moreover, while Manager 2 is a strong proponent of bilateral exchanges between the clubs, which he believes are more purposeful than public company presentations, other managers point to the opportunities that could emerge from a structured approach involving more clubs and sharing more knowledge with those who do not have the resources to fail as often as others.

4.5.2 More Attractive Partnerships to Achieve Financial Independence

Uncovering the potential of innovation in collaborating with their sponsoring partners, the interviewees have identified another opportunity. Especially in the digital space, Manager 6 sees immense potential to evolve this particular aspect of the football business by implementing solutions which are more attractive to the fans and consumers.

(...) There are also opportunities for partners to lift each other up to a different market level. When innovative partners work together, sometimes 1+1 is more than 2 (...). You can't do that with every partner, but I think there are certainly some. (Manager 2, Pos. 39, translated)

Ultimately, so notes Manager 5, partners and fans need to see the value in the projects, not the club alone. Therefore, it is necessary to explore and evaluate innovative opportunities from all angles.

In successfully developing these partnerships, the interviewees see opportunities to expand existing and establish new revenue streams to diversify their clubs' incomes.

Since Manager 3 anticipates reduced media contract volumes, innovative partnerships provide a fundamental opportunity to counteract. Manager 2 sees similar monetary opportunities, for which innovative projects need to be realized across stadium, digital and analog customer experiences, to deliver the best possible value to all stakeholders.

4.5.3 Implementation of Advancing Technologies

The final, yet briefly portrayed opportunity relates to future influences of innovation. Here, managers see potential in being proactive regarding the incorporation of rapidly advancing technologies as it is currently happening with artificial intelligence. Manager 4 sees considerable potential for clubs who want to revamp their digital offerings by leveraging innovative tools. This notion is shared by Manager 5, who underlines the speed that is enabled by them. For the latter, this also opens up new paths into sports data innovation, where he sees enormous potential for smaller clubs to establish innovative scouting methods to challenge the incumbent clubs.

4.6 Perceived Challenges for Innovation in German Football

Opposite to the previously discussed opportunities, there are also several challenges managers face when fostering innovation in German football clubs. Several themes come to light, namely the resistance to innovation due to tradition, cost adversity and lack of resources, and the dependency on sport results as portrayed in Figure 6 below.

Cost Adversity and Lack of Resources

Lack of strategic direction

Change resistance
Structural deficiencies

Resistance to Innovation due to Tradition

Balance needed

Embrace the younger generations' preferences

Innovation in Football Clubs

Figure 6: Challenges for Innovation in German Football Clubs

Source: Own illustration.

4.6.1 Resistance to Innovation Due to Tradition

In an industry built on emotion and tradition, innovation faces an uphill battle. Several managers report resistance and opposition to their activities which they must navigate carefully. Hence, a major challenge for clubs is to balance the status quo and innovation without overdoing the latter, which can be counterproductive to their business goals. With respect to this balance, Manager 6 states:

The challenge is simply not to lose yourself, in my opinion. That is, to stand for something, to have a line, so that predictability comes in. Because without the trust of the fans, nothing will ever work. (Manager 6, Pos. 47, translated)

However, for Manager 1, it is usually the club's fans who act as the antipole to everything new because it challenges their view of the traditional football club. Because of this, several interviewees point out that football as a sport is lagging behind its innovative potential. To resolve this and to address and retain the fans' goodwill, Manager 4 emphasis the importance of clear communication, which is echoed by other interviewees, and Manager 2 underlines the need to give fans time to understand and adapt to new developments. According to Manager 5, special attention needs to be paid to the various fan personas, as this complicates the communication process, which must cover all necessary communication channels.

The findings show that several clubs struggle with the balance between identifying themselves as traditional clubs and the need to innovate in order to survive in the market as explicitly expressed by Manager 3 and Manager 6. For the former, this struggle even leads to a reluctance towards innovation in an effort to preserve the club's traditional values. Manager 4 also notes a very strong tension between the two. Manager 1, however, sees the positive side of this friction as the discourse ensures rational decision-making during the innovation process. Finally, a consensus emerges in which the managers see the challenge in accepting that clubs need to move on from purely traditional values and also embrace the younger generations' preferences for modern and innovative sports.

4.6.2 Cost Adversity and Lack of Resources

A further, significant challenge identified by respondents is three-pronged: a perceived lack of strategic direction for innovation, a pervasive cost adversity due to a lack of resources and a general change resistance due to arrogance and bureaucracy.

Generally, it appears that clubs are plagued by highly limited resources. This has two manifestations. On the one hand, clubs rely on financial cooperation with partners to jointly realize projects, as described by Manager 5. On the other hand, there is a significant reluctance to allocate resources to innovation projects because club leadership is highly focused on keeping costs low.

Unfortunately, the topic of innovation is still very often condemned as an expense item. And that is of course true. You can seldom really build a good innovation without making a little investment first. And many people shy away from that. (Manager 1, Pos. 89, translated)

As discussed previously, this is a recurring pattern, where managers pay great attention to the underlying business cases of innovation projects. Therefore, Manager 6 sees potential in the increasing investments which are being made in professional sports. Similarly, Manager 3 mentions a similar aspect with a remark to the recently failed investment deal in the German Bundesliga¹. However, both interviewees acknowledge that the investment alone does not inevitably result in innovation due to a lack of clear, strategic direction. Manager 1 attributes this to structural deficiencies and an observed lack of dedicated personnel in some clubs. Furthermore, Manager 2 suggests that the above-mentioned are caused by a faulty innovation culture and the non-existence of clear objectives for innovation.

Furthermore, even in cases where resources are available to be used in innovation projects, clubs face high regulatory hurdles to overcome. Due to the complex distribution of media and image rights, Manager 5 experiences restrictions when trying to implement novel ideas. Still, Manager 4 acknowledges the importance of regulatory frameworks but notices the delay they cause, which is observed by Manager 2, too, who wishes that organizations would have more courage when it comes to innovative ideas. Manager 1 even criticizes the unique, exceptional position which football

¹ Earlier in 2023, a DFL vote failed to generate the needed two-thirds majority for the sale of a minority stake of the leagues' international media rights to an investor (Veth, 2023).

assumes (and took during the pandemic²) in society and attributes the football ecosystem with arrogance and stiffness which hinders innovation.

4.6.3 Dependency on Sport Results

Likely the most prevalent challenge that business managers in football clubs face is the significant, dominating effect that their respective team's on-pitch performance has on business efforts.

If the team played really poorly that day, then our service won't work. But if we manage to produce a great win, then, even with the worst product, we'll achieve things that you wouldn't dream of in the industry. (Manager 6, Pos. 24, translated)

Multiple managers share experiences in line with the anchor example. Manager 4 sees his club's sporting performance as the foundation of everything they do, seeing little potential for the business side to remedy a really bad match day. In addition, Manager 5 even observes a correlation between football performance and revenue peaks. The challenge, which is identified in this context, is to establish independence from the club's sporting successes and failures when managing its (digital) innovations. Moreover, the impact of poor sporting performances on the availability of resources for other units in the organization cannot be neglected. In the event of prolonged poor performance, recovering the on-pitch performance quickly takes priority over several expenses, which often include innovation, and resources might be reallocated, so Manager 5.

² During the early stages of the pandemic (2020-2021), football received "special" treatment and was allowed to resume operations (e.g., Bairner, 2020; DFL Deutsche Fußball Liga, 2020)

5 Discussion

Building on both the literature and the findings, the focus of the thesis now shifts to the interpretation of its results. In this section, attention will first be paid to answering the previously defined research questions, starting with a characterization and comparison of the innovation approaches found in German football clubs before identifying traces of open innovation therein. Throughout, selected aspects of the broader academic context are integrated, and the findings are aligned with existing literature in the field as comparing the results to prior research provides valuable insights into the consistency and novelty of the contributions. Subsequently, managerial implications are derived before finally, the study's limitations are laid out.

5.1 Characteristics of Innovation in German Football Clubs

The first research question inquires about the key characteristics of innovation in football clubs and aims to uncover insights regarding the approaches, processes and initiatives within German football clubs specifically undertaken to foster innovation in their organization.

The study at hand reveals a status quo cross-section of organizations that have not yet established or completed establishing their innovation structures and mindsets. A lack of common understanding within and between the organizations emerges, as described in section 4.1.1. This is coupled with loosely defined innovation strategies which are mostly oriented to the corporate strategy or a vision from which implicit objectives are derived. Still, several aspects allow comparison. Already in the relatively small sample, clubs cover both ends of the spectrum of innovation strategy timings as defined by Dodgson et al. (2008). The approach described by Manager 1 certainly shares characteristics with a proactive strategy as several initiatives and completed projects show their ambition of being a first mover in their market who does not shy away from radical changes to the business model for example. Several others employ an active or even reactive approach, significantly depending on the available resources. There is a clear tendency that innovation is more present in those clubs that have the finances to back up the projects while smaller clubs need their resources – both financial and human – to manage their operations and status quo.

While the football business evolves into more professional structures, as evidenced in the literature review (e.g., Breitbarth & Harris, 2008; Potts & Ratten, 2016), so do

innovation structures within the clubs. About half of the interviewed managers report currently ongoing organizing or restructuring initiatives which aim to provide a bigger stage to the topic of innovation, which promises a long-term thinking and sustainable development of these organizational structures for future innovation projects. The managers and their clubs certainly appear to have realized that innovation is necessary to survive in today's competitive environment and aim to prevent the negative consequences which threaten to impact revenue streams (Mastromartino & Naraine, 2022). However, it is important to note that the German football ecosystem lacks institutions like those briefly introduced in the introduction of the study, which could potentially enable more clubs to partake in innovative initiatives due to improved information symmetry.

Next to the structures and organizational systems that clubs aim to establish, there has also been a consensus about the importance of leadership and personnel. Both an innovative mindset and the qualification to conduct projects of the innovative kind are pointed out as critical in successful innovation teams. Here, the mentioning of managerial and leadership capabilities leads to the assumption that managers are aware of the importance of dynamic capabilities and absorptive capacity as was pointed out in the literature (e.g., Harris et al., 2021), too.

Clubs share the utilization of a multitude of sources both from within and outside the own industry bubble to feed their innovation funnels. Moreover, there is a clear, characteristic tendency to act in a fan-centric way and to involve fans before and during the process of innovating as pointed out by several managers. This is highly important and in line with previous academic work, which emphasizes the fans' role as sources for innovation (Franke & Shah, 2003). Furthermore, clubs show awareness of the significance of precise fan data collection and the impacts that this has on sound decision-making and project initiation, which again reflects the results of recent studies (Behnam et al., 2022).

The diversity of outcomes that was described by the interviewees reflects the findings of multiple studies (e.g., Tjønndal, 2017; Webb et al., 2023) previously, spanning from commercial innovations as revenue catalysts to social innovations focusing on societal topics such as gender equality and sustainability. It can be assumed that the connecting between the two topics is no coincidence. Although some managers pointed out the

potential that digital products have in providing sustainable options, this is likely driven by the implementation of the DFL licensing and sustainability regulations.

The major challenge which is felt by Bundesliga clubs surrounds the conflict of tradition and the investigated innovation. Various managers give their accounts of experiencing this obstacle. Looking at the literature, this conflict is not new at all. Earliest mentions date back to the previous century, with Steward and Smith (1999) underlining the challenge due to resistance, and are found in studies up until the year of this study (e.g., Hoff et al., 2023).

5.2 Traces of Open Innovation in Innovation Approaches

The study's second research question has primarily been asked based on the simple observation of open innovation in European sport innovation institutions as described in the introduction. However, except for one, there were no explicit, literal mentions of the concept during the conducted interviews. Still, the reviewed literature points to the potential of open innovation for sport organization (Knaus & Merkle, 2020) and several characteristics of open innovation can be observed in the innovation approaches described in this study, especially considering the network nature and sourcing of innovation. Hence, the traces of the concept, which were knowingly or unknowingly implemented by the clubs shall be highlighted here.

First, the innovation approaches share one major characteristic with open innovation: external collaboration. Since football clubs usually do not employ extensive developer capacities or specialize in product development, there is a strong need for external collaboration when it comes to the implementation of innovation projects. Section 4.4.2 mentions the importance of maintaining a network of partners as an informal way of exchange, and as clubs involve partners, their sponsors, startups and especially their fans in the initiation and implementation thereof, a diverse set of sources of innovation is created. Both of which are major commonalities with open innovation. This connection has previously been highlighted in the literature, providing further anecdotal validity of the study's results (Ratten, 2016).

Furthermore, the focus on customer-centricity is an important trait of open innovation which is reflected in the clubs' approaches as well. Several football clubs have recognized the importance of their supporters with regards to fan engagement and

satisfaction and actively involve them in the process. This creates a sense of cocreation, which can be seen as a further indicator for open innovation characteristics.

Lastly, football clubs operate in network and ecosystem structures closely related to open innovation. As football clubs rely on their closest rivals to exist and provide them with the competition on the field, they inadvertently participate in an ecosystem that drives innovation, which fosters the need for adaptation. To some degree, this interdependence organically mirrors the dynamics of open innovation networks, which collectively aim to improve an industry for shared benefits.

Addressing the single, explicit mention of open innovation, it must be stated that the club launched and cancelled an initiative based on the concept due to a lack of immediate monetary benefit and decided to go with an alternative proven concept which allowed to reap results quicker. Hence, although a decision against open innovation was taken, this was allegedly based on a lack of resources needed to pursue the project for as long as it took to shed profits.

In summary, while open innovation may not have been mentioned explicitly by most interviewees, multiple characteristics and principles associated with it can be identified in the approaches. As pointed out by scholars, various benefits wait to be uncovered through the implementation of the concept, and the trend appears to be to pursue these benefits (e.g., Monteiro et al., 2020; Ratten, 2020b). Whether this transition into more explicit applications will occur, remains to be seen.

5.3 Managerial Implications

The discussed findings provide valuable insights to be put into practice for executives and managers of football clubs and potentially for organizations in other industries which want to enhance their innovation strategies. These practical implications provide sound guidance to improve processes and outcomes of innovation and create an innovative foundation that has the potential to positively impact their organizations and have a lasting impact on their success.

First, managers are advised to prioritize and establish a clear and shared definition of innovation within their organizations. A common understanding of innovation can help align efforts, minimize confusion, and ensure that everyone is working towards the same goals. Clubs should also define specific innovation objectives that are closely

aligned with the club's overall strategic vision. These objectives should clarify the ambition regarding the timing of the efforts, meaning whether the primary focus is on becoming a market leader, being a first mover or a follower.

Furthermore, many clubs may benefit from transitioning from currently decentralized innovation structures to more centralized models, which can be done by creating a dedicated innovation unit to serve as a focal point for strategic projects. Alternatively, if the staffing is more limited, the implementation of cross-functional committees like Innovation Hubs or Boards is possible. This kind of centralization can improve coordination and communication between the various club units, fostering synergies in the innovation efforts. It is also advisable to align these restructuring initiatives with regulatory requirements, especially those imposed by governing bodies, to ensure compliance while enhancing innovation capabilities.

On top of that, football clubs should remain aware of current and upcoming regulations and should be prepared to adapt to changes which may impact their innovation strategies. However, instead of viewing regulatory compliance solely as a burden, clubs should leverage these requirements as opportunities to drive innovation and stay ahead of the industry. This also means that clubs should not only fulfill the minimum requirements but use them as a springboard to improve the overall organizational potential.

Besides, managers of football clubs are advised to foster an organizational culture and mindset that actively encourages openness to innovation, risk-taking, and learning from failures as crucial. The organization's leadership should also assume a pivotal role and set a positive example by actively demonstrating support and participation for innovative initiatives. In addition, clubs are encouraged to showcase lighthouse projects to motivate employees to generate and embrace innovative ideas. Recognizing and rewarding innovation efforts can further nurture a culture of innovation.

Although it appears that this is understood by the responsible managers, it remains to be highlighted: To ensure a continuous flow of innovative ideas, football clubs should actively gather insights and suggestions from various sources. These sources include employees, fans, sponsors, partners, and further external players. The importance of fans was highlighted on several occasions throughout the findings and their involvement and satisfaction are imperative to the clubs' thriving. Creating dedicated channels and platforms to fill the ideation funnel can facilitate this process. Especially

in German football, there appears to be space for cross-organizational hubs that could play a part in shaping the future of innovation. Furthermore, engaging with startup ecosystems and exploring partnerships, accelerators, or innovation challenges with startups can bring fresh external perspectives and emerging trends to the club's innovation efforts.

Like for any sound project but somewhat more complex for innovation, it is critical to develop clear key performance indicators (KPIs) to monitor the success of innovation projects. These KPIs should align with established innovation goals and may include financial measurements, branding indicators, and partnership assessments. It is also critical to have a strong evaluation process in place to assess the impact of innovation projects and make data-driven decisions about whether to continue or expand them.

Because skilled personnel are recognized for their pivotal role in driving innovation, clubs should invest in ongoing education and training to equip employees with the necessary skills and knowledge to support innovation efforts effectively. Identifying and nurturing individuals with early adopter mindsets and the capabilities needed to soundly identify opportunities for innovation within the organization can further strengthen overall innovation capabilities.

Finally, managers must realize and accept that it is essential to prioritize and maintain a fan-centric approach as fan satisfaction is the primary driver of success in the sports industry. Football clubs should continuously collect and respect fan feedback. This will help them adjust their offerings to meet actual fan needs and preferences. The study suggests that by leveraging customer relationship management tools that can provide valuable insights into fan behavior and preferences, clubs are able to tailor their innovation efforts accordingly.

5.4 Limitations of the Study

As with every other study, this study is not exempt from several limitations. These limitations are influenced by the various sections of, and process steps taken by the study and affect aspects such as methodology, participant selection, research design, and findings.

First, the relatively small sample size included only six participants. This limits the generalizability of the findings. Additionally, all interviewees were managers

responsible for innovation at their respective clubs, ultimately resulting in a potential for bias. Managers may have a subconscious desire or bias to present their clubs in a positive light or have their own biases. Since the data for this study is self-reported by these interviewees, this could influence the way the asked questions were interpreted and responded to. Furthermore, although these managers all deal with innovation in their daily work to some degree, their level of involvement, insight and decision-making authority varies. Since there were managers represented that covered the full range from the operational to director to top-ranking management, the provided insights may have been influenced by different levels of insights.

Second, the managers contacted and interviewed for the study ended up primarily being part of the digitally and commercially focused departments of the football clubs. While this represents great importance for the club, it leaves the core business, football, to the side and does not truly reflect how clubs innovate in athlete-related and performance-related topics.

Third, the research design is cross-sectional, meaning that it is only a snapshot of data collected at one point in time, which limits the ability to identify trends within one club over time. Especially regarding the introduction of licensing regulations by the organizing body DFL, this is something that could uncover relevant insights in the future.

Lastly, the study's findings are not generally applicable to other countries, leagues or sports as the study focused on innovation strategies in German football and therefore, only included managers of those. This comes along with the typical characteristic of qualitative research, which is to explore complexity instead of producing generalizable results.

Overall, the findings of the study provide valuable context and insights into the topic of innovation in German football, but it remains highly important to be aware of its limitations when reviewing and interpreting the results.

6 Conclusion

Due to the emergence of professionalized business structures throughout the sports industry, and football industry specifically, a need for a fundamental analysis of strategies, structures, processes and outcomes of innovation was identified. Focusing on the German football ecosystem, the thesis at hand thoroughly analyzes characteristics of innovation approaches and structures in German football clubs, attempting to capture a valuable cross-section of insights. The research also pays attention to tracing the concept of open innovation in these structures and processes as it has become popular in sport innovation initiatives across the continent.

The study provides a sound and comprehensive literature review that serves as the foundation for the subsequent empirical part. A lack of internal definitions of innovation within the clubs is identified as well as an implicit focus on digital innovation that is present in the departments represented by the interviewees. Furthermore, the findings reveal that innovation is commonly derived from the clubs' corporate strategies but is not covered by an explicitly defined innovation strategy. Innovation leadership and a culture of innovation are underlined as crucial factors to enable organizations and their staff to innovate safely and effectively.

In addition, the study identifies that innovation outcomes are only loosely prioritized by the clubs and cover the full ensemble of the form dimension. Product and service innovations aim to improve the monetization of fan engagement while process and business model innovations are implemented to increase productivity and efficiency in the organizations as well as diversify their revenue streams, respectively. Whether projects offer incremental improvements or radical breakthroughs, depends as much on a club's ambitions as it does on the project. However, most clubs experience limited capabilities and rely on third-party partners for implementation, hence, limiting their options.

Innovation processes are found to be mostly unstructured but leverage a variety of sources to fill the initiating funnel. As partners, sponsors, startups, fans and various more players in the football ecosystem attempt to get a piece of the cake that is exposure in sports, clubs are not short of inputs for innovation. Yet, the current lack of structures leaves clubs overwhelmed with the amount of offers and suggestions they receive on the one hand but allows for flexibility when it comes to the choosing of projects on the other hand.

Besides these findings, the study also identifies several opportunities and challenges for innovation in football clubs as they are perceived by the interviewed managers. Managers emphasize and wish for the change in mindset and own perception that is needed to tackle the transformation of an industry as traditionally rooted in sports or football specifically. Moreover, innovation was identified as a great tool to create more attractive partnerships which ultimately can help the clubs achieve financial independence. Innovative projects which are jointly realized with partners have the potential to create greater value for both parties by setting them apart from the competition. Finally, clubs are urged to pay close attention to rapidly evolving advancing technologies to notice and identify potential quick wins. Managers see a great opportunity for smaller clubs and organizations to use their shorter decisionmaking chains to gain an edge on larger, established clubs. On the flipside, innovation faces challenges, too. A general resistance to innovation is identified due to deep traditional roots of the industry and a wide-spread change resistance when it comes to these values and characteristics. Internally, clubs face a strong cost adversity for innovation projects, as these are commonly seen as cost drivers rather than catalysts for evolution. Finally, business managers struggle greatly with the organizations' dependency on sport results as a string of poor performances will directly affect business outcomes with no regard for sound decision-making and execution on the managers' side.

Generally, the study's findings are in line with or at least comparable to those of previous studies and provide no major contradictions to the reviewed literature. Yet, it demonstrates a valuable degree of originality within the realm of sports management and innovation research. Complementary to previous studies conducted on innovation in sport, this study stands out due to its focus on innovative clubs in the German football ecosystem, offering a comprehensive analysis. By focusing on a single market, the study avoids results that are generalized from cross-national research. Furthermore, the study benefits from a thorough literature review and builds upon an established framework, thereby contributing a valuable resource and source of information for managers and researchers alike, which offers a useful foundation for future, more specialized studies that peek into the world of innovation in football.

The just mentioned future studies can find several points to connect to which emerge from the design and findings of this study, which are schematically displayed in Figure 7. On the one hand, the study's scope and subject offer several avenues that following

research can pursue. Expanding the sample of this study can yield interesting and valuable results for several reasons. First, the inclusion of clubs with a lesser level of professionalization may produce insights into the plans of those managers that operate on a greenfield approach rather than a restructuring task as observed in the study. Second, the emergence of the DFL licensing regulations for sustainability and digitalization provides further need for investigation of these structures. Studies investigating the interpretation and implementation of the required aspects might produce a useful cross-section for future managers and evaluators alike. Of course, similar studies such as this one can also be conducted internationally, putting the spotlight on European or North American clubs or associations in order to gather insights which can later be compared to those presented here. As laid out at the beginning of the study, several more sophisticated structures have already emerged from some organizations. Conducting deep dive case studies on those could potentially yield valuable implications for managers considering similar projects. Of course, other sports could be the subject of a study like this one. Finally, as the business of football, and sports more generally, evolves rapidly in current times, longitudinal studies might provide an interesting perspective on the developments, potentially highlighting different reactions to various external factors.

Further Research Paths after "Exploring Innovation Strategies in German Football" Research Subject & Scope Other Research Other Bundesliga International Sports Design clubs Longitudinal Other clubs Studies Innovation Deep Dives Hubs

Figure 7: Prospective Avenues for Subsequent Research

Source: Own illustration.

On the other hand, the study's topic could be expanded or focused based on several hypotheses. Logically, deep dives into the various identified dimensions of innovation offer promising avenues for future studies. Especially deep dives into structures and initiatives in more matured clubs may offer highly valuable insights into the success factors of these projects, which could be applied by those aiming to establish similar

structures. The same applies to processes, which, as identified, is something that is only loosely defined in most clubs — even among those who demonstrate regular innovative activities. On top of that, the application of innovation maturity models might provide quantifiable insights into the state of innovation in the football industry, providing a more objective evaluation of the clubs. Last but certainly not least, a change in perspective on the topic could provide monumentally important insights for managers. Investigating the fans' perspective and examining their actual perception and needs could lead to a significant reduction in failed outcomes by managers who are trying to operate in a more fan-centric way. Similarly, the sampling of opinions of external companies which are providing services to the clubs could help in identifying weaknesses in the process of innovation.

Seven managerial implications were derived from the results of the study, covering several aspects of influence on innovation. These implications and suggestions include the need for clear and shared definitions within the clubs, the benefits of centralizing innovation within the internal structures, the importance of being aware of changing regulations and requirements connected to their status as a Bundesliga club and the significance of a diversified input stream of innovative ideas and partners. In addition, managers are encouraged to track the outcomes of their projects closely but pay attention to the selection of indicators, to identify and engage qualified and motivated individuals for innovative responsibilities and finally, to acknowledge the importance of a fan-centric approach to ensure a fit with their supporter base.

In conclusion, this master's thesis analyzes a sample of German football clubs and their understanding, strategies, structures and processes regarding innovation, among other aspects. By doing so, it provided all those interested in the topic with a comprehensive overview of various facets of the aforementioned subject and shed light on a dynamic field of business and football alike. It is hoped that this work will inspire future research into the business of football and innovation at that, contributing to the continued growth and evolution of the beautiful game. What the future holds for innovation in football remains to be seen but recent announcements point practitioners into highly interesting directions. With the DFL announcing "SportsInnovation 2024", an international platform for technological developments in sports, early this year as well as UEFA and its UEFA Innovation Hub – another prime example of innovation structures in football – announcing a new program called "Champions Innovate" to use the 2024 UEFA Champions League Final as a platform for innovative ideas,

innovation is still and certainly on the rise (DFL Deutsche Fußball Liga, 2023; UEFA.com, 2023). However, only the future will tell whether the DFL and its clubs can live up to their ambition of being an innovation leader in football as stated on their website. Certainly, several clubs have managed to establish themselves among the leaders in the field but as this study shows, various aspects of innovation are still in their infancy, waiting to be unleashed by the clubs in the coming initiatives. This study hopes to have an impact on exactly that by shedding light on some aspects and guiding managers towards an improved state in the near future where innovation becomes a driving force, propelling them even further ahead.

Bibliography

- Adams, J., Khan, H., Raeside, R., & White, D. (2007). Research Methods for Graduate Business and Social Science Students. SAGE Publications India Pvt Ltd. https://doi.org/10.4135/9788132108498
- Adner, R. (2006). Match Your Innovation Strategy To Your Innovation Ecosystem.

 Harvard Business Review.
- Adner, R. (2017). Ecosystem as Structure: An Actionable Construct for Strategy.

 Journal of Management, 43(1), 39–58.

 https://doi.org/10.1177/0149206316678451
- Ali, A. (1994). Pioneering Versus Incremental Innovation: Review and Research Propositions. *Journal of Product Innovation Management*, 11(1), 46–61. https://doi.org/10.1111/1540-5885.1110046
- Almudi, I., Fatas-Villafranca, F., Potts, J., & Thomas, S. (2018). Absorptive capacity of demand in sports innovation. *Economics of Innovation and New Technology*, 27(4), 328–342. https://doi.org/10.1080/10438599.2017.1356045
- Andersen, S. S., & Ronglan, L. T. (2015). Historical paths and policy change: Institutional entrepreneurship in Nordic elite sport systems. *International Journal of Sport Policy and Politics*, 7(2), 197–216. https://doi.org/10.1080/19406940.2015.1031811
- Ansoff, H. I. (1958). A Model for Diversification. *Management Science*, 4(4), 392–414.
- Anthony, S. D., Eyring, M., & Gibson, L. (2006). Mapping your innovation strategy. *Harvard Business Review*, 84(5), 104–113, 157.
- Arsenal Innovation Lab. (2017). Arsenal Innovation Lab. https://www.arsenalinnovationlab.com
- Autio, E. (2022). Orchestrating ecosystems: A multi-layered framework. *Innovation*, 24(1), 96–109. https://doi.org/10.1080/14479338.2021.1919120
- Bairner, R. (2020, April 5). Bundesliga could return in May—With "draconian" measures, says virologist / Goal.com US. https://www.goal.com/en-

- us/news/bundesliga-could-return-in-may-with-draconian-measures-says-virologist/12zzb967jwmdf125qfsk8of9ko
- Baregheh, A., Rowley, J., & Sambrook, S. (2009). Towards a multidisciplinary definition of innovation. *Management Decision*, 47(8), 1323–1339. https://doi.org/10.1108/00251740910984578
- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99–120. https://doi.org/10.1177/014920639101700108
- Barney, J., Wright, M., & Ketchen, D. J. (2001). The resource-based view of the firm:

 Ten years after 1991. *Journal of Management*, 27(6), 625–641.

 https://doi.org/10.1177/014920630102700601
- Bass, B. M., & Avolio, B. J. (1994). Transformational Leadership And Organizational Culture. *International Journal of Public Administration*, 17(3–4), 541–554. https://doi.org/10.1080/01900699408524907
- Behnam, M., Delshab, V., & Tuan, L. T. (2022). Perceived service innovation in non-profit sports clubs: The antecedents and consequence. *European Sport Management Quarterly*, 22(3), 440–462. https://doi.org/10.1080/16184742.2020.1799051
- Beiderbeck, D., Evans, N., Frevel, N., & Schmidt, S. L. (2023). The impact of technology on the future of football A global Delphi study. *Technological Forecasting and Social Change*, 187, 122186. https://doi.org/10.1016/j.techfore.2022.122186
- Biernacki, P., & Waldorf, D. (1981). Snowball Sampling: Problems and Techniques of Chain Referral Sampling. *Sociological Methods & Research*, 10(2), 141–163. https://doi.org/10.1177/004912418101000205
- Birkinshaw, J., Hamel, G., & Mol, M. J. (2008). Management Innovation. *Academy of Management Review*, *33*(4), 825–845. https://doi.org/10.5465/amr.2008.34421969
- Bogers, M., Garud, R., Thomas, L. D. W., Tuertscher, P., & Yoo, Y. (2022). Digital innovation: Transforming research and practice. *Innovation*, 24(1), 4–12. https://doi.org/10.1080/14479338.2021.2005465

- Bogers, M., Zobel, A.-K., Afuah, A., Almirall, E., Brunswicker, S., Dahlander, L.,
 Frederiksen, L., Gawer, A., Gruber, M., Haefliger, S., Hagedoorn, J.,
 Hilgers, D., Laursen, K., Magnusson, M. G., Majchrzak, A., McCarthy, I.
 P., Moeslein, K. M., Nambisan, S., Piller, F. T., ... Ter Wal, A. L. J.
 (2017). The open innovation research landscape: Established perspectives
 and emerging themes across different levels of analysis. *Industry and Innovation*, 24(1), 8–40. https://doi.org/10.1080/13662716.2016.1240068
- Bond, A. J., Cockayne, D., Ludvigsen, J. A. L., Maguire, K., Parnell, D., Plumley, D., Widdop, P., & Wilson, R. (2022). COVID-19: The return of football fans.

 *Managing Sport and Leisure, 27(1–2), 108–118. https://doi.org/10.1080/23750472.2020.1841449
- Breitbarth, T., & Harris, P. (2008). The Role of Corporate Social Responsibility in the Football Business: Towards the Development of a Conceptual Model. *European Sport Management Quarterly*, 8(2), 179–206. https://doi.org/10.1080/16184740802024484
- Buck, C., & Ifland, S. (2023). Toward an enduring football economy: A business model taxonomy for Europe's professional football clubs. *European Sport Management Quarterly*, 23(5), 1409–1429. https://doi.org/10.1080/16184742.2022.2026448
- Buser, M., Woratschek, H., Dickson, G., & Schönberner, J. (2022). Toward a Sport Ecosystem Logic. *Journal of Sport Management*, 36(6), 534–547. https://doi.org/10.1123/jsm.2021-0056
- Callejo, M. B., & Forcadell, F. J. (2006). Real Madrid football club: A new model of business organization for sports clubs in Spain. *Global Business and Organizational Excellence*, 26(1), 51–64. https://doi.org/10.1002/joe.20121
- Chesbrough, H. (2003). Open innovation: The new imperative for creating and profiting from technology. Harvard Business School Press.
- Chesbrough, H. (2012). Open Innovation: Where We've Been and Where We're Going. *Research-Technology Management*, 55(4), 20–27. https://doi.org/10.5437/08956308X5504085

- Chesbrough, H., & Bogers, M. (2014). *Explicating Open Innovation: Clarifying an Emerging Paradigm for Understanding Innovation* (New Frontiers in Open Innovation, pp. 3–28). Oxford University Press. https://ssrn.com/abstract=2427233
- Chesbrough, H., Visnjic, I., Mundet, A., & Volwahsen, G. (2021). *Barça Innovation Hub: Getting the Ball Rolling on Innovation*. The Berkeley-Haas Case Series. University of California, Berkeley. Haas School of Business. https://doi.org/10.4135/9781529792713
- Chrisman, J. J., Chua, J. H., De Massis, A., Frattini, F., & Wright, M. (2015). The Ability and Willingness Paradox in Family Firm Innovation: Family Firm Innovation Future Agenda. *Journal of Product Innovation Management*, 32(3), 310–318. https://doi.org/10.1111/jpim.12207
- Christensen, C. M. (1997). The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail. Harvard Business School Press.
- Cohen, W. M., & Levinthal, D. A. (1990). Absorptive Capacity: A New Perspective on Learning and Innovation. *Administrative Science Quarterly*, *35*(1), 128. https://doi.org/10.2307/2393553
- Cooper, J. R. (1998). A multidimensional approach to the adoption of innovation.

 *Management Decision, 36(8), 493–502.

 https://doi.org/10.1108/00251749810232565
- Corbin, J. M., & Strauss, A. L. (2015). *Basics of qualitative research techniques and procedures for developing grounded theory* (Fourth edition). SAGE.
- Corthouts, J., Winand, M., & Scheerder, J. (2023). A three-dimensional model of innovation within Flemish non-profit sports organisations. *European Sport Management Quarterly*, 23(3), 853–876. https://doi.org/10.1080/16184742.2021.1936115
- Corthouts, J., Zeimers, G., Helsen, K., Demeulemeester, C., Könecke, T., Zintz, T., & Scheerder, J. (2022). Sport federations' organizational innovativeness: An empirical comparison of characteristics and attitudes. *International Journal of Sports Marketing and Sponsorship*, 23(5), 901–919. https://doi.org/10.1108/IJSMS-02-2021-0035

- Crossan, M. M., & Apaydin, M. (2010). A Multi-Dimensional Framework of Organizational Innovation: A Systematic Review of the Literature: A Framework of Organizational Innovation. *Journal of Management Studies*, 47(6), 1154–1191. https://doi.org/10.1111/j.1467-6486.2009.00880.x
- Damanpour, F., & Evan, W. M. (1984). Organizational Innovation and Performance:

 The Problem of "Organizational Lag." *Administrative Science Quarterly*,
 29(3), 392. https://doi.org/10.2307/2393031
- Damanpour, F., Walker, R. M., & Avellaneda, C. N. (2009). Combinative Effects of Innovation Types and Organizational Performance: A Longitudinal Study of Service Organizations. *Journal of Management Studies*, 46(4), 650–675. https://doi.org/10.1111/j.1467-6486.2008.00814.x
- Delshab, V., Winand, M., Sadeghi Boroujerdi, S., Hoeber, L., & Mahmoudian, A. (2022). The impact of knowledge management on performance in nonprofit sports clubs: The mediating role of attitude toward innovation, open innovation, and innovativeness. *European Sport Management Quarterly*, 22(2), 139–160. https://doi.org/10.1080/16184742.2020.1768572
- Denti, L., & Hemlin, S. (2012). Leadership and Innovation in Organizations: A Systematic Review of Factors that Mediate or Moderate the Relationship. International Journal of Innovation Management, 16(03), 1240007. https://doi.org/10.1142/S1363919612400075
- Dewar, R. D., & Dutton, J. E. (1986). The Adoption of Radical and Incremental Innovations: An Empirical Analysis. *Management Science*, *32*(11), 1422–1433. https://doi.org/10.1287/mnsc.32.11.1422
- DFL Deutsche Fußball Liga. (n.d.). *Innovation at DFL*. Retrieved June 5, 2023, from https://www.dfl.de/en/category/innovation/
- DFL Deutsche Fußball Liga. (2022a). *Anhang XIV zur LO: Nachhaltigkeitsrichtlinie*. https://media.dfl.de/sites/2/2022/06/Anhang-XIV-zur-LO-2022-05-31-Stand.pdf#

- DFL Deutsche Fußball Liga. (2023). *The 2023 Economic Report*. https://www.dfl.de/en/news/2023-dfl-economic-report
- DFL Deutsche Fußball Liga. (2020, November 5). "Task Force Sportmedizin/Sonderspielbetrieb" in ständigem Austausch mit Laboren | DFL Deutsche Fußball Liga. DFL Deutsche Fußball Liga GmbH dfl.de. https://www.dfl.de/de/aktuelles/task-force-sportmedizin-sonderspielbetrieb-in-staendigem-austausch-mit-laboren/
- DFL Deutsche Fußball Liga. (2022b, May 30). Clubs beschließen erstmals Nachhaltigkeitskriterien für Lizenzierungsordnung | DFL Deutsche Fußball Liga. DFL Deutsche Fußball Liga GmbH dfl.de. https://www.dfl.de/de/aktuelles/clubs-der-bundesliga-und-2-bundesliga-beschliessen-erstmals-nachhaltigkeitskriterien-fuer-lizenzierungsordnung/
- DFL Deutsche Fußball Liga. (2023, March 23). SportsInnovation am 20. Und 21. März 2024 in der MERKUR SPIEL-ARENA in Düsseldorf | DFL Deutsche Fußball Liga. DFL Deutsche Fußball Liga GmbH dfl.de. https://www.dfl.de/de/sportsinnovation/sportsinnovation-am-20-und-21-maerz-2024-in-der-merkur-spiel-arena-in-duesseldorf/
- Dimitropoulos, P. (2011). Corporate Governance and Earnings Management in the European Football Industry. *European Sport Management Quarterly*, 11(5), 495–523. https://doi.org/10.1080/16184742.2011.624108
- Dodgson, M., Gann, D. M., & Phillips, N. (Eds.). (2014). *The Oxford Handbook of Innovation Management* (1st ed.). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780199694945.001.0001
- Dodgson, M., Gann, D., & Salter, A. (2008). The management of technological innovation: Strategy and practice (New ed., rev.updated). Oxford University Press.
- Doloriert, C., & Whitworth, K. (2011). A case study of knowledge management in the "back office" of two English football clubs. *The Learning Organization*, 18(6), 422–437. https://doi.org/10.1108/09696471111171286

- Dresing, T., & Pehl, T. (2018). Praxisbuch Interview, Transkription & Analyse:

 Anleitungen und Regelsysteme für qualitativ Forschende (8th ed.).
- Dyer, B., & Song, X. M. (1998). Innovation Strategy and Sanctioned Conflict: A New Edge in Innovation? *Journal of Product Innovation Management*, 15(6), 487–581. https://doi.org/10.1111/1540-5885.1560505
- Eintracht Frankfurt. (n.d.). *EintrachtTech—Eintracht Frankfurt Klub*. Eintracht Frankfurt. Retrieved May 24, 2023, from https://klub.eintracht.de/eintrachttech/
- Elmquist, M., Fredberg, T., & Ollila, S. (2009). Exploring the field of open innovation. *European Journal of Innovation Management*, 12(3), 326–345. https://doi.org/10.1108/14601060910974219
- Escamilla-Fajardo, P., Núñez-Pomar, J., & Parra-Camacho, D. (2019). Does the organizational climate predict the innovation in sports clubs? *Journal of Entrepreneurship and Public Policy*, 8(1), 103–121. https://doi.org/10.1108/JEPP-03-2019-104
- Etikan, I. (2016). Comparison of Convenience Sampling and Purposive Sampling.

 *American Journal of Theoretical and Applied Statistics, 5(1), 1.

 https://doi.org/10.11648/j.ajtas.20160501.11
- FC Barcelona. (2023). *Barça Innovation Hub*. Barça Innovation Hub. https://barcainnovationhub.fcbarcelona.com/en/the-hub.html
- Ferreira, J. J., Fernandes, C., Ratten, V., & Miragaia, D. (2020). Sports Innovation: A Bibliometric Study. In V. Ratten (Ed.), Sport Entrepreneurship and Public Policy (pp. 153–170). Springer International Publishing. https://doi.org/10.1007/978-3-030-29458-8_10
- Forslund, M. (2017). Innovation in soccer clubs the case of Sweden. *Soccer & Society*, 18(2–3), 374–395. https://doi.org/10.1080/14660970.2016.1166768
- Franke, N., & Shah, S. (2003). How communities support innovative activities: An exploration of assistance and sharing among end-users. *Research Policy*, 32(1), 157–178. https://doi.org/10.1016/S0048-7333(02)00006-9

- Fühner, J., Schmidt, S. L., & Schreyer, D. (2021). Are diversified football clubs better prepared for a crisis? First empirical evidence from the stock market. *European Sport Management Quarterly*, 21(3), 350–373. https://doi.org/10.1080/16184742.2020.1862273
- Garcia, R., & Calantone, R. (2002). A critical look at technological innovation typology and innovativeness terminology: A literature review. *Journal of Product Innovation Management*, 19(2), 110–132. https://doi.org/10.1111/1540-5885.1920110
- Gerke, A. (2016). Towards a network model of innovation in sport the case of product innovation in nautical sport clusters. *Innovation*, 18(3), 270–288. https://doi.org/10.1080/14479338.2016.1237306
- Gerke, A., Luzzini, D., & Mena, C. (2021). Innovation configurations in sport clusters:

 The role of interorganizational citizenship and social capital. *Journal of Business Research*, 133, 409–419.

 https://doi.org/10.1016/j.jbusres.2021.04.064
- Girginov, V., Toohey, K., & Willem, A. (2015). Information, knowledge creation and innovation management in sport: An introduction to the thematic section.
 European Sport Management Quarterly, 15(5), 516–517.
 https://doi.org/10.1080/16184742.2015.1105273
- Gopalakrishnan, S., & Damanpour, F. (1997). A review of innovation research in economics, sociology and technology management. *Omega*, 25(1), 15–28. https://doi.org/10.1016/S0305-0483(96)00043-6
- Grant, R. M. (1996). Toward a knowledge-based theory of the firm: Knowledge-based Theory of the Firm. *Strategic Management Journal*, *17*(S2), 109–122. https://doi.org/10.1002/smj.4250171110
- Guest, G., MacQueen, K. M., & Namey, E. E. (2012). *Applied thematic analysis*. Sage Publications.
- Hambrick, D. C., & Mason, P. A. (1984). Upper Echelons: The Organization as a Reflection of Its Top Managers. *The Academy of Management Review*, 9(2), 193. https://doi.org/10.2307/258434

- Hammerschmidt, J., Durst, S., Kraus, S., & Puumalainen, K. (2021). Professional football clubs and empirical evidence from the COVID-19 crisis: Time for sport entrepreneurship? *Technological Forecasting and Social Change*, 165, 120572. https://doi.org/10.1016/j.techfore.2021.120572
- Hannabuss, S. (1996). Research interviews. *New Library World*, 97(5), 22–30. https://doi.org/10.1108/03074809610122881
- Harris, S. J., Metzger, M. L., & Duening, T. N. (2021). Innovation in national governing bodies of sport: Investigating dynamic capabilities that drive growth. *European Sport Management Quarterly*, 21(1), 94–115. https://doi.org/10.1080/16184742.2020.1725090
- Hedenborg, S., Svensson, D., & Radmann, A. (2022). Global challenges and innovations in sport: Effects of Covid-19 on sport. Sport in Society, 25(7), 1227–1230. https://doi.org/10.1080/17430437.2022.2038878
- Hoeber, L., Doherty, A., Hoeber, O., & Wolfe, R. (2015). The nature of innovation in community sport organizations. *European Sport Management Quarterly*, 15(5), 518–534. https://doi.org/10.1080/16184742.2015.1085070
- 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(3), 213–223. https://doi.org/10.1123/jsm.26.3.213
- Hoff, K., Ellis, D., & Leopkey, B. (2023). Innovation drivers, barriers, and strategies of organizing committees for the Olympic games: An embedded single-case study approach. *European Sport Management Quarterly*, 1–23. https://doi.org/10.1080/16184742.2023.2195871
- Hoff, K., Leopkey, B., & Ellis, D. (2022). Sport event innovation: A preliminary conceptualization and directions for future research. Sport, Business and Management: An International Journal, 12(5), 618–638. https://doi.org/10.1108/SBM-07-2021-0083
- Holzmayer, F., & Schmidt, S. L. (2020). Financial performance and corporate diversification strategies in professional football evidence from the English Premier League. *Sport, Business and Management: An*

- International Journal, 10(3), 291–315. https://doi.org/10.1108/SBM-03-2019-0019
- Jacob, S., & Furgerson, S. (2015). Writing Interview Protocols and Conducting Interviews: Tips for Students New to the Field of Qualitative Research. *The Qualitative Report*. https://doi.org/10.46743/2160-3715/2012.1718
- Kallio, H., Pietilä, A.-M., Johnson, M., & Kangasniemi, M. (2016). Systematic methodological review: Developing a framework for a qualitative semistructured interview guide. *Journal of Advanced Nursing*, 72(12), 2954– 2965. https://doi.org/10.1111/jan.13031
- Katz, B. R., Du Preez, N. D., & Schutte, C. S. L. (2010). Definition and role of an innovation strategy. SAIIE Conference Proceedings, 60–74. https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=25320 48e182c03acdfff1b29232af3579a0620a1
- Knaus, D. L., & Merkle, T. (2020). Open Innovation in Sports Management The Case of the FIFA Museum in Zurich, Switzerland. In V. Ratten, Sport Entrepreneurship (pp. 43–53). Emerald Publishing Limited. https://doi.org/10.1108/978-1-83982-836-220201008
- Kozma, M., & Teker, F. (2022). Business model innovation for sustainable operations in professional football: How supporters gain more control of the Beautiful Game. *Society and Economy*, 44(4), 420–438. https://doi.org/10.1556/204.2022.00022
- Krauss, S., Hamzah, A., Omar, Z., Suandi, T., Ismail, I., Zahari, M., & Nor, Z. (2009).
 Preliminary Investigation and Interview Guide Development for Studying how Malaysian Farmers Form their Mental Models of Farming. *The Qualitative Report*. https://doi.org/10.46743/2160-3715/2009.1382
- Kuckartz, U., & R\u00e4diker, S. (2019). Analyzing Qualitative Data with MAXQDA: Text, Audio, and Video. Springer International Publishing. https://doi.org/10.1007/978-3-030-15671-8
- Kvale, S. (1996). *Interviews: An introduction to qualitative research interviewing*. Sage Publications.

- Liu, S., Skinner, J., & Grosman, A. (2022). From Rags to Riches: Business Model Innovation Shifts in the Ecosystem of the Chinese Super League. *Journal of Global Sport Management*, 7(3), 406–426. https://doi.org/10.1080/24704067.2020.1751675
- Majid, M. A. A., Othman, M., Mohamad, S. F., Lim, S. A. H., & Yusof, A. (2017). Piloting for Interviews in Qualitative Research: Operationalization and Lessons Learnt. *International Journal of Academic Research in Business and Social Sciences*, 7(4), 1073–1080. https://doi.org/10.6007/IJARBSS/v7-i4/2916
- Majumdar, B., & Naha, S. (2020). Live sport during the COVID-19 crisis: Fans as creative broadcasters. *Sport in Society*, 23(7), 1091–1099. https://doi.org/10.1080/17430437.2020.1776972
- Markides, C. (2006). Disruptive Innovation: In Need of Better Theory*. *Journal of Product Innovation Management*, 23(1), 19–25. https://doi.org/10.1111/j.1540-5885.2005.00177.x
- Mastromartino, B., & Naraine, M. L. (2022). (Dis)Innovative digital strategy in professional sport: Examining sponsor leveraging through social media. International Journal of Sports Marketing and Sponsorship, 23(5), 934–949. https://doi.org/10.1108/IJSMS-02-2021-0032
- Máté F. (2022, July 5). "We believe that football has the power to transform our society. What we do, make an impact" interview with Claudio Demmer, Senior Innovation Manager of VfL Wolfsburg / sportsmarketing.hu. SportsMarketing. https://sportsmarketing.hu/2022/07/05/we-believe-that-football-has-the-power-to-transform-our-society-what-we-do-make-an-impact-interview-with-claudio-demmer-senior-innovation-manager-of-vfl-wolfsburg/
- Matz, L., Abeza, G., & Wagner, D. (2022). COVID-19 and the Bundesliga: A study of digital fan engagement strategies in professional soccer. In P. Pedersen (Ed.), Research Handbook on Sport and COVID-19 (pp. 301–312).
 Edward Elgar Publishing. https://doi.org/10.4337/9781802207576.00034
- Mayring, P. (2010). Qualitative Inhaltsanalyse. Grundlagen und Techniken. (11th ed.). Beltz.

- Mayring, P. (2014). Qualitative Content Analysis. Theoretical Foundation, Basic Procedures and Software Solution (1st ed.). Beltz. https://www.ssoar.info/ssoar/handle/document/39517
- Merriam-Webster. (2023, May 23). Innovation. https://www.merriam-webster.com/dictionary/innovation
- Mohammadkazemi, R., Rasekh, N., & Navid, M. (2016). The Effect of Entrepreneurial Competencies on Innovation: A Case Study of Professional Sport Clubs.

 *International Business Research, 9(11), 57. https://doi.org/10.5539/ibr.v9n11p57
- Mol, M. J., & Birkinshaw, J. (2009). The sources of management innovation: When firms introduce new management practices. *Journal of Business Research*, 62(12), 1269–1280. https://doi.org/10.1016/j.jbusres.2009.01.001
- Monteiro, F., Carrick, A.-M., & Davies, J. (2020). Barça Innovation Hub (BIH) Goes Global: Innovation On and Off the Pitch. *INSEAD*. https://publishing.insead.edu/case/barca-innovation-hub
- Monteiro, F., Shah, J., & Carrick, A.-M. (2022). FC Barcelona's Barça Innovation Hub and Digital Innovation (B): Covid Crisis as an Opportunity. *INSEAD*. https://publishing.insead.edu/case/fc-barcelonas-barca-innovation-hub-and-digital-innovation-b-covid-crisis-opportunity
- Nambisan, S., Lyytinen, K., Majchrzak, A., & Song, M. (2017). Digital Innovation Management: Reinventing Innovation Management Research in a Digital World. *MIS Quarterly*, 41(1), 223–238. https://doi.org/10.25300/MISQ/2017/41:1.03
- Newell, S., & Swan, J. (1995). The Diffusion of Innovations in Sport Organizations:

 An Evaluative Framework. *Journal of Sport Management*, 9(3), 317–337.

 https://doi.org/10.1123/jsm.9.3.317
- OECD & Statistical Office of the European Communities. (2005). *Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data, 3rd Edition*.

 OECD. https://doi.org/10.1787/9789264013100-en

- Parnell, D., Bond, A. J., Widdop, P., & Cockayne, D. (2021). Football Worlds: Business and networks during COVID-19. Soccer & Society, 22(1–2), 19– 26. https://doi.org/10.1080/14660970.2020.1782719
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3 ed). Sage Publications.
- 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(1), 86–98. https://doi.org/10.1016/j.smr.2014.05.003
- Petrović, L. T., Milovanović, D., & Desbordes, M. (2015). Emerging technologies and sports events: Innovative information and communication solutions. *Sport, Business and Management: An International Journal*, *5*(2), 175–190. https://doi.org/10.1108/SBM-06-2012-0021
- Pisano, G. P. (2015, June 1). You Need an Innovation Strategy. *Harvard Business Review*. https://hbr.org/2015/06/you-need-an-innovation-strategy
- Potts, J., & Ratten, V. (2016). Sports innovation: Introduction to the special section.

 **Innovation*, 18(3), 233–237.

 https://doi.org/10.1080/14479338.2016.1241154
- Potts, J., & Thomas, S. (2018). Toward a new (evolutionary) economics of sports. *Sport, Business and Management: An International Journal*, 8(1), 82–96. https://doi.org/10.1108/SBM-04-2017-0023
- Pounder, P. (2019). Examining interconnectivity of entrepreneurship, innovation and sports policy framework. *Journal of Entrepreneurship and Public Policy*, 8(4), 483–499. https://doi.org/10.1108/JEPP-08-2019-111
- Qu, S. Q., & Dumay, J. (2011). The qualitative research interview. *Qualitative Research in Accounting & Management*, 8(3), 238–264. https://doi.org/10.1108/11766091111162070
- Radaelli, G., Dell'Era, C., Frattini, F., & Messeni Petruzzelli, A. (2018).

 Entrepreneurship and Human Capital in Professional Sport: A

 Longitudinal Analysis of the Italian Soccer League. *Entrepreneurship*

- *Theory and Practice*, *42*(1), 70–93. https://doi.org/10.1177/1042258717732957
- Randhawa, K., Wilden, R., & Hohberger, J. (2016). A Bibliometric Review of Open Innovation: Setting a Research Agenda: A Bibliometric Review of Open Innovation. *Journal of Product Innovation Management*, *33*(6), 750–772. https://doi.org/10.1111/jpim.12312
- Ratten, V. (2010). Developing a theory of sport-based entrepreneurship. *Journal of Management & Organization*, 16(4), 557–565. https://doi.org/10.5172/jmo.2010.16.4.557
- Ratten, V. (2016). Sport innovation management: Towards a research agenda. *Innovation*, 18(3), 238–250. https://doi.org/10.1080/14479338.2016.1244471
- Ratten, V. (2019). Conclusion: Future Trends and Directions in Sport Technology and Innovation. In V. Ratten, Sports Technology and Innovation (pp. 129– 146). Springer International Publishing. https://doi.org/10.1007/978-3-319-75046-0_8
- Ratten, V. (2020a). Digital Transformation in Sport and Social Media. In V. Ratten (Ed.), *Sport Startups: New Advances in Entrepreneurship* (pp. 89–104). Emerald Publishing Limited. https://doi.org/10.1108/978-1-78973-081-420201007
- Ratten, V. (2020b). Football Ecosystems and Innovation. In V. Ratten (Ed.), *Sport Startups: New Advances in Entrepreneurship* (pp. 71–87). Emerald Publishing Limited. https://doi.org/10.1108/978-1-78973-081-420201006
- Ratten, V. (2021a). *Innovation and Entrepreneurship in Sport Management*. Edward Elgar Publishing. https://doi.org/10.4337/9781783473960
- Ratten, V. (2021b). Introduction: Innovation and entrepreneurship in sport management. In V. Ratten, *Innovation and Entrepreneurship in Sport Management* (pp. 1–8). Edward Elgar Publishing. https://doi.org/10.4337/9781783473960.00008
- Ratten, V., & Babiak, K. (2010). The role of social responsibility, philanthropy and entrepreneurship in the sport industry. *Journal of Management* &

- *Organization*, 16(4), 482–487. https://doi.org/10.1017/S1833367200001875
- Ratten, V., Da Silva Braga, V. L., & Da Encarnação Marques, C. S. (2021). Sport entrepreneurship and value co-creation in times of crisis: The covid-19 pandemic. *Journal of Business Research*, 133, 265–274. https://doi.org/10.1016/j.jbusres.2021.05.001
- Reybold, L. E., Lammert, J. D., & Stribling, S. M. (2013). Participant selection as a conscious research method: Thinking forward and the deliberation of 'Emergent' findings. *Qualitative Research*, 13(6), 699–716. https://doi.org/10.1177/1468794112465634
- Robinson, O. C. (2014). Sampling in Interview-Based Qualitative Research: A Theoretical and Practical Guide. *Qualitative Research in Psychology*, 11(1), 25–41. https://doi.org/10.1080/14780887.2013.801543
- Rohde, M., & Breuer, C. (2017). The market for football club investors: A review of theory and empirical evidence from professional European football. *European Sport Management Quarterly*, 17(3), 265–289. https://doi.org/10.1080/16184742.2017.1279203
- Rundh, B., & Gottfridsson, P. (2015). Delivering sports events: The arena concept in sports from a network perspective. *Journal of Business & Industrial Marketing*, 30(7), 785–794. https://doi.org/10.1108/JBIM-06-2013-0131
- Santomier, J., Dolles, H., & Kunz, R. (2023). The National Basketball Association's (NBA) Digital Transformation: An Explanatory Case Study. *Quality in Sport*, 11(1), 63–80. https://doi.org/10.12775/QS.2023.11.01.005
- Saunders, M. N. K., Lewis, P., & Thornhill, A. (2019). *Research methods for business students* (Eighth Edition). Pearson. https://www.pearson.de/research-methods-for-business-students-ebook-9781292208794
- Shanker, R., Ramudu, B., & Fish, Alan. (2012). Changing organizational climate for innovative through Leadership: An Exploratory Review and Research Agenda. Review of Management Innovation & Creativity, 5(14), 105–118.
- Simao, L., & Franco, M. (2018). External knowledge sources as antecedents of organizational innovation in firm workplaces: A knowledge-based

- perspective. *Journal of Knowledge Management*, 22(2), 237–256. https://doi.org/10.1108/JKM-01-2017-0002
- Skinner, J., Smith, A. C. T., & Swanson, S. (2018). Leaders as the Drivers of Innovation: The Sport Leadership Ecosystem and Innovative Leadership. In J. Skinner, A. C. T. Smith, & S. Swanson, Fostering Innovative Cultures in Sport (pp. 69–109). Springer International Publishing. https://doi.org/10.1007/978-3-319-78622-3_3
- Smith, A. C. T., & Stewart, B. (2010). The special features of sport: A critical revisit.

 Sport Management Review, 13(1), 1–13.

 https://doi.org/10.1016/j.smr.2009.07.002
- Smith, N. L., & Green, B. C. (2020). Examining the factors influencing organizational creativity in professional sport organizations. *Sport Management Review*, 23(5), 992–1004. https://doi.org/10.1016/j.smr.2020.02.003
- Sports Innovation Lab. (2022). *Top 25 Most Innovative Teams in the World* (p. 16). https://downloads.ctfassets.net/40abn7j4v349/1uevdl047bfCUMt1aTFFs
 L/670afc014fd9ca4408ffbaf051628f61/Top_25_Most_Innovative_Teams
 _-_2022_SIL.pdf
- Stadler Blank, A., Loveland, K. E., & Houghton, D. M. (2021). Game changing innovation or bad beat? How sports betting can reduce fan engagement.

 Journal of Business Research, 134, 365–374.

 https://doi.org/10.1016/j.jbusres.2021.05.036
- Stewart, B., & Smith, A. (1999). The Special Features of Sport. *Annals of Leisure Research*, 2(1), 87–99. https://doi.org/10.1080/11745398.1999.10600874
- Swanson, R. A., & Holton, E. F. (Eds.). (2005). Research in organizations: Foundations and methods of inquiry. Berrett-Koehler.
- Taylor, S. P. (2017). What Is Innovation? A Study of the Definitions, Academic Models and Applicability of Innovation to an Example of Social Housing in England. *Open Journal of Social Sciences*, 05(11), 128–146. https://doi.org/10.4236/jss.2017.511010
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533.

- https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z
- Tjønndal, A. (2016). Sport, Innovation and Strategic Management: A Systematic Literature Review. *Brazilian Business Review*, 38–56. https://doi.org/10.15728/edicaoesp.2016.3
- Tjønndal, A. (2017). Sport innovation: Developing a typology. *European Journal for Sport and Society*, 14(4), 291–310. https://doi.org/10.1080/16138171.2017.1421504
- TOP 100. (2023). *Innovationswettbewerb TOP 100—Die Top-Innovatoren*. TOP 100. https://www.top100.de/die-top-innovatoren/
- Trott, P. (2017). *Innovation management and new product development* (Sixth Edition). Pearson.
- UEFA.com. (2023, September 15). *Champions Innovate | Inside UEFA*. UEFA.Com. https://www.uefa.com/insideuefa/news/0285-18fc50e90328-5bfe099b449c-1000--champions-innovate/
- Vaccaro, I. G., Jansen, J. J. P., Van Den Bosch, F. A. J., & Volberda, H. W. (2012).
 Management Innovation and Leadership: The Moderating Role of
 Organizational Size: Management Innovation and Leadership. *Journal of Management Studies*, 49(1), 28–51. https://doi.org/10.1111/j.1467-6486.2010.00976.x
- Varadarajan, R. (2018). Innovation, Innovation Strategy, and Strategic Innovation. In R. Varadarajan & S. Jayachandran (Eds.), *Review of Marketing Research* (Vol. 15, pp. 143–166). Emerald Publishing Limited. https://doi.org/10.1108/S1548-643520180000015007
- Veth, M. (2023, May 24). Bundesliga: Turned Down Investor Deal Could Lead To Fragmentation Of Top 2 Divisions. Forbes. https://www.forbes.com/sites/manuelveth/2023/05/24/bundesliga-turned-down-investor-deal-could-lead-to-fragmentation-of-top-2-divisions/
- Volkswagen AG. (2022). Open Innovation Wettbewerb von VfL Wolfsburg. VfL Wolfsburg OI Wettbewerb. https://www.openinnovation-

- volkswagengroup.com/de/PastChallenges/VfL-Wolfsburg-OI-Wettbewerb.html#
- 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(4), 591–615. https://doi.org/10.1093/jopart/mum026
- Wang, C. L., & Ahmed, P. K. (2004). The development and validation of the organisational innovativeness construct using confirmatory factor analysis. *European Journal of Innovation Management*, 7(4), 303–313. https://doi.org/10.1108/14601060410565056
- Webb, A., Cloutier, A., & Brouard, F. (2023). Innovations in global sports brands management: The case of FC Barcelona's Barça Museum. *Managing Sport and Leisure*, 1–21. https://doi.org/10.1080/23750472.2023.2200491
- Webster, J., & Watson, R. T. (2002). Analyzing the Past to Prepare for the Future: Writing a Literature Review. *MIS Quarterly*, 26(2), xiii–xxiii. JSTOR.
- Wemmer, F., Emrich, E., & Koenigstorfer, J. (2016). The impact of coopetition-based open innovation on performance in nonprofit sports clubs. *European Sport Management Quarterly*, 16(3), 341–363. https://doi.org/10.1080/16184742.2016.1164735
- Wemmer, F., & Koenigstorfer, J. (2016). Open Innovation in Nonprofit Sports Clubs. *VOLUNTAS: International Journal of Voluntary and Nonprofit*Organizations, 27(4), 1923–1949. https://doi.org/10.1007/s11266-015-9571-5
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171–180. https://doi.org/10.1002/smj.4250050207
- West, J., & Bogers, M. (2014). Leveraging External Sources of Innovation: A Review of Research on Open Innovation: Leveraging External Sources of Innovation. *Journal of Product Innovation Management*, 31(4), 814–831. https://doi.org/10.1111/jpim.12125

- West, J., & Bogers, M. (2017). Open innovation: Current status and research opportunities. *Innovation*, 19(1), 43–50. https://doi.org/10.1080/14479338.2016.1258995
- Whiting, L. S. (2008). Semi-structured interviews: Guidance for novice researchers.

 *Nursing Standard, 22(23), 35–40.

 https://doi.org/10.7748/ns2008.02.22.23.35.c6420
- Winand, M., & Anagnostopoulos, C. (2017). Get ready to innovate! Staff's disposition to implement service innovation in non-profit sport organisations. *International Journal of Sport Policy and Politics*, 9(4), 579–595. https://doi.org/10.1080/19406940.2017.1308418
- Winand, M., & Hoeber, L. (2017). Innovation capability of non-profit sport organizations. In *Sport entrepreneurship and innovation* (2nd ed., Vol. 3, pp. 13–30).
- Winand, M., Scheerder, J., Vos, S., & Zintz, T. (2016). Do non-profit sport organisations innovate? Types and preferences of service innovation within regional sport federations. *Innovation*, 18(3), 289–308. https://doi.org/10.1080/14479338.2016.1235985
- Yoshida, M., James, J. D., & Cronin Jr, J. J. (2013). Sport event innovativeness:

 Conceptualization, measurement, and its impact on consumer behavior.

 Sport Management Review, 16(1), 68–84.

 https://doi.org/10.1016/j.smr.2012.03.003
- Zahra, S. A., & George, G. (2002). Absorptive Capacity: A Review, Reconceptualization, and Extension. *The Academy of Management Review*, 27(2), 185. https://doi.org/10.2307/4134351