



Jonas Hammerschmidt

**SPORT ENTREPRENEURSHIP DYNAMICS:  
INSIGHTS FROM PROFESSIONAL FOOTBALL  
AND BEYOND**



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## **SPORT ENTREPRENEURSHIP DYNAMICS: INSIGHTS FROM PROFESSIONAL FOOTBALL AND BEYOND**

Dissertation for the degree of Doctor of Science (Economics and Business Administration) to be presented with due permission for public examination and criticism in the Auditorium 1314 at Lappeenranta-Lahti University of Technology LUT, Lappeenranta, Finland on the 2<sup>nd</sup> of May 2024, at noon.

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# Abstract

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The burgeoning sport industry plays a pivotal role in the global economy, necessitating the importance of gaining a deeper understanding of its entrepreneurial dimensions. This doctoral dissertation specifically delves into the dynamics of sport entrepreneurship, placing a primary focus on the realm of professional football. It seeks to address a fundamental question: *How is sport entrepreneurship employed by the sport industry to navigate challenges and capitalize on opportunities?*

This research is motivated by the need to bridge knowledge gaps and complexities at the sport-entrepreneurship intersection. Sport entrepreneurship serves as a dynamic catalyst influencing both the sport and business domains, offering fertile ground for exploration.

To ensure a thorough exploration, a diverse methodological toolkit is employed, including theoretical, quantitative, and qualitative approaches such as multiple-case studies, correlation analyses, expert interviews, logit model analysis, systematic literature reviews, and bibliometric analyses. This comprehensive approach ensures meticulous data collection, analysis, and synthesis throughout the study.

Comprising five articles, the dissertation uncovers the adaptive strategies employed by international football clubs amid the COVID-19 crisis and explores the relationship between managing a sport career and conducting an entrepreneurial initiative. It unravels the intricate relationship between entrepreneurial orientation and organizational performance in professional football. Additionally, the research identifies pivotal success factors in the second career transitions of football players, accentuating the value of sport entrepreneurship. The research concludes with an integrated model that provides a forward-looking perspective on sport entrepreneurship dynamics.

This dissertation highlights the profound impact of sport entrepreneurship on the sport industry. The revealed dynamics of sport entrepreneurship interconnect various facets of the sport domain, forming a narrative of exploration, adaptation, and growth.

Keywords: Sport entrepreneurship, Innovation, Management, Football, Soccer



## Acknowledgments

I extend my deepest gratitude to all those who have played a pivotal role in the development and completion of this doctoral dissertation, marking the culmination of an arduous yet rewarding journey. Their unwavering support, guidance, and encouragement have been instrumental in shaping both the dissertation and my personal growth.

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Last but not least, heartfelt thanks go out to my family and friends for their unwavering encouragement and understanding during the challenging phases of this academic pursuit. Their love and enthusiasm have been my anchor, providing the strength to overcome obstacles and persevere.

This dissertation represents the collective efforts and support of those mentioned above. I am profoundly grateful for the privilege of having such exceptional individuals in my academic and personal life.

Jonas Hammerschmidt  
March 2024  
Kressbronn a.B., Germany



*“Those who have a why can endure almost any how.”*

*I dedicate this work to Katrin, the love of my life, and to my kids, the ones that make the earth turn in the most beautiful direction I could ever imagine.*

*Thank you for giving me a why, making this dissertation a joyful piece of hard work.*





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## List of publications

This dissertation is based on five academic articles. Table 1 presents a short overview of the articles underlying this dissertation. The rights have been granted by publishers to include the articles in the dissertation.

- I. 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, Article 120572.
- II. Hindle, K., Hammerschmidt, J., Viala, C., Kraus, S., Jones, P., & Calabuig, F. (2021). Converting sporting capacity to entrepreneurial capacity: A process perspective. *European Journal of International Management*, 15(2–3), 197–213.
- III. Hammerschmidt, J., Eggers, F., Kraus, S., Jones, P., & Filser, M. (2020). Entrepreneurial orientation in sports entrepreneurship – A mixed methods analysis of professional soccer clubs in the German-speaking countries. *International Entrepreneurship and Management Journal*, 16, 839–857.
- IV. Ramos, A. S., Hammerschmidt, J., Ribeiro, A. S., Lima, F., & Kraus, S. (2022). Rethinking dual careers: Success factors for career transition of professional football players and the role of sport entrepreneurship. *International Journal of Sports Marketing and Sponsorship*, 23(5), 881–900.
- V. Hammerschmidt, J., González-Serrano, M. H., Puumalainen, K., & Calabuig, F. (2023). Sport entrepreneurship: The role of innovation and creativity in sport management. *Review of Managerial Science*. Advance online publication.

## Author's contribution

The author of this dissertation, Jonas Hammerschmidt, is the lead author in Publications I, III, and V, shouldering responsibilities that encompassed the development of the research idea, the creation of the research design, and the interpretation of the results. The lead author, in the case of Publications I and III, also undertook the tasks of data collection and analysis, as well as the systematic literature review for Publication V. For Publications I, III, and V, the co-authors assisted in the creation of the theoretical framework related to their respective areas of expertise. The order of authors always reflects the degree of contribution of the respective authors.

Table 1: Overview of the publications

<b>Title</b>	<b>Journal</b>	<b>Status</b>	<b>Impact Factor 2022</b>	<b>JIF Quartile</b>	<b>JUFO</b>
<i>Publication I</i> Professional football clubs and empirical evidence from the COVID-19 crisis: Time for sport entrepreneurship?	<i>Technological Forecasting and Social Change</i>	Published	12.00	Q1	3
<i>Publication II</i> Converting sporting capacity to entrepreneurial capacity: A process perspective	<i>European Journal of International Management</i>	Published	1.80	Q4	1
<i>Publication III</i> Entrepreneurial orientation in sports entrepreneurship – A mixed methods analysis of professional soccer clubs in the German-speaking countries	<i>International Entrepreneurship and Management Journal</i>	Published	5.60	Q2	1
<i>Publication IV</i> Rethinking dual careers: Success factors for career transition of professional football players and the role of sport entrepreneurship	<i>International Journal of Sports Marketing and Sponsorship</i>	Published	2.20	Q4	1
<i>Publication V</i> Sport entrepreneurship: The role of innovation and creativity in sport management	<i>Review of Managerial Science</i>	Published	5.50	Q2	1

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- Figure 6:** Integrated model of sport entrepreneurship presented in Publication V

## Nomenclature

### Abbreviations

EO	Entrepreneurial orientation
MEP	Harmonized model of entrepreneurial process
PDF	Probability density function
PFC	Professional football club
QP	Quadros de Pessoal
SLR	Systematic literature review
SME	Small-to-medium-sized enterprises





# 1 Introduction

In an era where sport and business converge (Chalip, 2006; Gammelsæter, 2021), where international football clubs grapple with existential threats posed by the COVID-19 pandemic (Drewes et al., 2021; Escamilla-Fajardo, Núñez-Pomar, Calabuig, et al., 2020), and where athletes simultaneously pursue sport careers and entrepreneurial ventures (Steinbrink et al., 2020), a dynamic narrative unfolds. The challenge lies in understanding the evolving relationship between sport and entrepreneurship, a transformation that has the potential to redefine the sport industry, influence managerial and theoretical practices in sport management, and inspire innovative strategies in an ever-evolving sport landscape. The consequences are profound, as the fusion of these two domains not only reshapes athletic pursuits (Boyd et al., 2021) but also creates opportunities and challenges that resonate far beyond the field (Pellegrini et al., 2020), altering the landscape of both the sport industry and academia.

Sport has evolved into a substantial economic sector, encompassing various dimensions such as professional leagues, clubs, and athletes, all contributing to a thriving industry and a rich research field. Within this domain, sport entrepreneurial behavior has proven to be an effective strategy for sport organizations to achieve success in sporting, financial, and social realms (Escamilla-Fajardo, Núñez-Pomar, & Gómez-Tafalla, 2020; Núñez-Pomar et al., 2016). The increased interest in sport entrepreneurship highlights the expanding recognition of its importance and signifies a growing emphasis on understanding entrepreneurial dynamics within the field of sport.

## 1.1 Background information

Theoretical findings in the field of sport entrepreneurship often exhibit a scattered nature, lacking a comprehensive overview and being presented in a fragmented manner (Bjärsholm, 2017; Pellegrini et al., 2020). However, a closer examination reveals notable similarities to the structure of generic entrepreneurship. Contemporary research in sport entrepreneurship involves the recognition of opportunities within the sport industry, taking calculated risks, and creating value (Ayazi et al., 2015; Peterson & Schenker, 2017; Ratten & Jones, 2020). It closely aligns with the broader entrepreneurial concept, placing significant emphasis on identifying and capitalizing on opportunities within the dynamic and competitive sport environment (González-Serrano et al., 2020).

The unique characteristics of sport significantly influence the conceptualization of sport entrepreneurship (Pellegrini et al., 2020; Smith & Stewart, 2010). As a result, the process of sport entrepreneurship creates, in contrast to generic entrepreneurship, multifaceted values such as economic revenue, social welfare, and sport performance (Escamilla-Fajardo, Núñez-Pomar, & Gómez-Tafalla, 2020; Escamilla-Fajardo et al., 2021; Garcia-del-Barrio & Szymanski, 2009). In the field of sport entrepreneurship, the focus is on the application of entrepreneurial principles and practices, encompassing various aspects of the sport industry, including sport management (Ball, 2005; Pellegrini et al., 2020),

innovative business models (Hemme et al., 2017; Pizzo et al., 2018; Yoshida et al., 2013), and organizational strategies (Escamilla-Fajardo et al., 2022; Legg & Gough, 2012). To improve the understanding of sport entrepreneurship, researchers need to develop research principles specific to sport entrepreneurship and foster an integrated perspective to achieve a comprehensive sport entrepreneurship research framework (Pellegrini et al., 2020). Delving into the role of entrepreneurial thinking and its influence on decision-making processes within sport ventures and organizations offers an intriguing avenue for exploration (Núñez-Pomar et al., 2020; 2016), promising insights into how entrepreneurial principles can be effectively harnessed in the dynamic field of sport.

Among the various theoretical perspectives used to approach theory, network theory emerges as a critical lens through which we comprehend the collaborations, interactions, and relationships in sport among various stakeholders (Kerr, 2016). This includes athletes (Aquilina, 2013; Henry, 2013), organizations (Alonso Dos Santos & Calabuig, 2020; Escamilla-Fajardo, Núñez-Pomar, & Gómez-Tafalla, 2020), fans (Biscaia et al., 2018; Majumdar & Naha, 2020; Winand et al., 2021), and external partners (Chien et al., 2016; Svensson & Hambrick, 2019), each with their unique roles and influences. An intriguing avenue for further research involves investigating the central role of sport entrepreneurial networks in facilitating interdisciplinary collaboration and knowledge sharing, with a specific focus on how these interactions shape the landscape of the sport industry. Understanding the dynamics, processes, and internal structures of sport organizations is a fundamental aspect of both sport management in general (Ciomaga, 2013; Shilbury, 2011) and sport entrepreneurship in particular (Ball, 2005; Núñez-Pomar et al., 2020). Exploring how management practices, organizational culture, and leadership impact, innovation, creativity and entrepreneurship, is a significant research area (Khan & Ahmed, 2019; Li et al., 2018; Svensson & Mahoney, 2020). This involves crafting research and theories that contributes to a more informed impact on organizational theory within the context of sport entrepreneurship, contributing to a deeper understanding of how the internal aspects of sport organizations influence entrepreneurial and innovative endeavors.

Innovation plays a central role in the emergence of entrepreneurship (Hughes & Morgan, 2007; Wiklund & Shepherd, 2005), and it shares a symbiotic relationship with entrepreneurship in the field of sport (Pounder, 2019). Within sport entrepreneurship, innovation is pivotal in establishing a competitive advantage and fueling growth in the sport industry (Escamilla-Fajardo, Núñez-Pomar, Ratten, et al., 2020). It involves the introduction of new products, services, and approaches to meet the evolving demands of sport consumers (Winand et al., 2021; Yuksel et al., 2021). This aspect of sport entrepreneurship acknowledges the need for continuous adaptation (Escamilla-Fajardo, Núñez-Pomar, Calabuig, et al., 2020) and creativity (Fardilha & Allen, 2020) to remain at the forefront of the sport business landscape.

The sport industry shares distinct features, and an entrepreneurial mindset, as described by Wiklund (1999), equips individuals to navigate complex challenges and opportunities in the sport sector (Szymanski & Weimar, 2019). A notable characteristic of sport,

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compared to generic businesses, is the inherent challenge in managing the uncertainty of the sport outcome, requiring adept managerial behavior (McMullen & Shepherd, 2006). However, entrepreneurship as a strategy equips leaders to navigate uncertainty and leverage its beneficial potential (Kuratko et al., 2021). Organizational performance in sport heavily relies on sport performance, and the inherent uncertainty makes sport organizations highly vulnerable to unexpected shocks like injuries, relegation, or economic crises (Szymanski & Kuypers, 1999). A constant challenge within the field of sport is the ongoing transformation of the industry. Increasing commercialization is transforming sport clubs into businesses, obligating sport clubs to structurally adept and develop (Ribeiro et al., 2019). Digitalization plays a crucial role in driving commercial exploitation since changing consumer demands and emerging trends like esports are challenging traditional business models in sport (Jones et al., 2017; Pizzo et al., 2018). The football industry exemplifies this commercial-oriented growth, emphasizing the need for a nuanced approach to balance growth investments and financial sustainability (Hamil & Walters, 2010; Pinnuck & Potter, 2006). Despite industry challenges, numerous opportunities arise for entrepreneurial exploitation within sport. It is worth exploring how entrepreneurs can leverage their capacities to benefit and excel within the highly evolving economic landscape of sport (Ciomaga, 2013). The increasing commercial interest leads to the growing importance of athletes as primary contributors to sport. Athletes nowadays leverage their economic potential by proactively cultivating personal brands (Arai et al., 2014). This development is supported by technological advancements, reshaping fan engagement with athletes and their favorite teams (Yuksel et al., 2021). The increasing recognition of athletes and sport teams also highlights their ability to act as role models, contributing significant social impact and fostering cultural exchange and intercultural learning (Schulenkorf et al., 2011).

Entrepreneurship is seen as a valuable approach to navigating challenges and exploiting opportunities to foster organizational development (Audretsch & Belitski, 2021; Meyer & Meyer, 2020). Entrepreneurial strategies, which focus on value creation, play a crucial role in enhancing organizational and individual performance (Shane, 2000). Drawing parallels from generic management disciplines, entrepreneurship research can aid in unveiling positive relationships between managerial strategies and organizational performance (Kraus et al., 2012). Entrepreneurial orientation is instrumental in enhancing economic and sport outcomes for sport organizations, requiring tailored strategies aligned with specific organizational characteristics and goals (Núñez-Pomar et al., 2020). The adaptability of sport organizations, driven by entrepreneurial thinking, enables them to meet evolving customer demands and leverage technology for financial control (Miragaia et al., 2019). In addition, an entrepreneurial lens is a proven method for improving business performance in times of economic recession, showing its potential to emerge as a promising tool to cope with the negative consequences of crises (Crespo Celda et al., 2022). Due to the heterogeneous and rapidly changing challenges within the sport industry, sport entrepreneurship is not seen as a potential alternative but rather as a managerial necessity (Legg & Gough, 2012). Despite promising approaches, the application and consequences of sport entrepreneurship to address challenges and

opportunities in the sport industry have not yet been robustly investigated (Pellegrini et al., 2020).

Research further indicates the substantial role of the athlete in catalyzing entrepreneurial conduct within the sport industry (Steinbrink et al., 2020). The transition from an active sport career to entrepreneurial pursuits is a critical phase for athletes, with implications for their financial stability and personal development. This transition process begins during an athlete's active engagement in sport, necessitating strategic skills in athletic career management (Vilanova & Puig, 2016). The alignment of athletes' emotional experiences, passion, and motivation with those of entrepreneurs positions them as natural catalysts for entrepreneurial endeavors in the sport domain (Chan et al., 2015; Ruskin et al., 2016). Leveraging their visibility, personal brand, and experiences, athletes engage in entrepreneurial pursuits, such as launching products or establishing businesses (Parmentier & Fischer, 2012). In addition, the sport entrepreneur is instrumental in driving digital innovations in the sport sector, including the esports phenomenon (Pizzo et al., 2018; Pizzo et al., 2021).

Ongoing research on sport from an entrepreneurial perspective continues to advance steadily, parallel to the commercialization of sport. This trend is impacting even community-based sport organizations (Merkel et al., 2016). In contrast to this commercialization trajectory, the emergence of social entrepreneurship is a notable trend within the field of sport entrepreneurship and management literature (Bjärsholm, 2017; Pellegrini et al., 2020). Social entrepreneurship in sport represents the pursuit of opportunities that bring about positive social change within the sport context (Bjärsholm, 2017). It goes beyond profit-driven motives and addresses societal and community needs (Svensson & Mahoney, 2020). Sport organizations and individuals involved in social entrepreneurship often aim to leverage the powerful influence of sport to make a meaningful impact on society, whether through youth development, inclusivity, or community outreach (Svensson & Hambrick, 2019; Svensson & Mahoney, 2020; Svensson & Seifried, 2017; Webb et al., 2019). The intersection of sport and social entrepreneurship is intriguing, emphasizing the contribution of individuals and organizations to community and societal development with a focus on social impact and social responsibility (Bjärsholm, 2017; Pellegrini et al., 2020). As research in this domain gains momentum, there is a compelling need to craft theories that zero in on the role of social entrepreneurship in the broader context of sport management research (Rawhouser et al., 2019). Analyzing the tangible outcomes of social entrepreneurship in the context of sport to generate social value is an area promising for exploration, offering the potential to unlock the transformative power of sport in driving positive social change.

In summary, the sport industry, with its diverse research applications, provides a fertile terrain for investigating various facets of sport entrepreneurship as a strategy to navigate challenges and opportunities. These investigations encompass endeavors ranging from the development of theoretical frameworks to practical applications within organizations and among individuals. Its multifaceted nature allows for various entrepreneurial opportunities, from grassroots sport programs (Hoeber et al., 2015) to high-profile sport

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events (Chanavat et al., 2010) and media ventures (Scholz & Stein, 2017). The sport industry presents a unique combination of economic, cultural, and social elements, making it a promising research field for entrepreneurial activities.

## 1.2 Limitations of the current literature

The current landscape of sport entrepreneurship research exhibits notable limitations that warrant attention for the advancement of theoretical understanding and practical implications within the field of sport management.

One significant limitation lies in the absence of a clear conceptual framework and a lack of consensus on the definition and key concepts of sport entrepreneurship. Despite the widespread use of the term, there is a deficiency of systematic agreement within the literature. Sport entrepreneurship, while recognized for its potential as a strategic tool for organizations navigating economic challenges, lacks a universally accepted definition (Pellegrini et al., 2020). The term encompasses various facets, making it challenging to establish a cohesive understanding (Bjärsholm, 2017). The absence of consensus impedes the development of standardized frameworks and inhibits the field's progress in terms of theoretical coherence.

An additional limitation within the current literature on sport entrepreneurship pertains to the insufficient exploration of the entrepreneurial dynamics within the sport industry. While there is growing recognition of the importance of entrepreneurial strategies in sport management, a comprehensive understanding of the intricacies of sport entrepreneurial dynamics is notably lacking (Escamilla-Fajardo, Núñez-Pomar, Ratten, et al., 2020; González-Serrano et al., 2020; Pellegrini et al., 2020). Overall, sport entrepreneurial dynamics encompass the processes, mechanisms, and strategies employed by sport organizations and individuals to identify, pursue, and capitalize on opportunities while addressing challenges within the industry. Entrepreneurial dynamics in sport are pivotal for organizations looking to adapt and thrive in the face of evolving market conditions, economic challenges, and shifting consumer behaviors (Jones et al., 2017; Legg & Gough, 2012). Entrepreneurial organizations within the sport industry may exhibit traits such as innovation, risk-taking, and proactiveness, enabling them to outperform competitors within the hostile sport industry. For example, in times of economic crisis, sport organizations with a strong entrepreneurial mindset may be better equipped to handle the severe consequences of an impending recession. However, the limited understanding of how these dynamics unfold hinders the development of targeted and effective approaches within the sport industry.

A notable research gap in sport entrepreneurship research is the relatively limited focus on individual entrepreneurship within the context of sport. While there is a growing body of literature on entrepreneurship in sport organizations and teams (González-Serrano et al., 2020; Pellegrini et al., 2020), there is a scarcity of in-depth studies that delve into the entrepreneurial activities of individual athletes or sport employees. Athletes acquire valuable skills that are transferable during their professional sport career, including the

ability to self-regulate and optimize (Baron-Thiene & Alfermann, 2015), working under pressure (Burlot et al., 2018), or commitment (Hemme et al., 2017), which can enhance their employability in various fields (Bernes et al., 2009). Moreover, many athletes transition into entrepreneurial activities, leveraging their brands and experiences to create businesses (Arai et al., 2014; Kunkel et al., 2019). The limited attention to the factors influencing this transition and the success of athlete entrepreneurs represents a substantial gap in the literature, hindering a comprehensive understanding of the intersection of sport and entrepreneurship.

This comprehensive exploration of the interplay between sport and entrepreneurship will provide insights into the evolving relationship between these two domains and serve as the foundation for standardized frameworks and practical strategies. The aim is to enhance the understanding and occurrence of entrepreneurial dynamics in the field of sport, providing valuable guidance for researchers, practitioners, and stakeholders in the sport industry.

### 1.3 Research questions

While the field of sport entrepreneurship has generated a growing body of literature and research insights, it remains in its formative stages. This nascent status is evident through the fragmented theoretical and interdisciplinary underpinnings of the framework, along with a limited number of high-quality scholarly contributions (González-Serrano et al., 2020). To gain a more comprehensive understanding of this theoretical construct and its implications for navigating the challenges and opportunities of the sport industry, there is a pressing need for both theoretical and practical advancements. As a response to this gap, this dissertation embarks on a detailed exploration of the interplay between sport entrepreneurship and the sport industry to address the overarching research question:

*Research question:*                *How is sport entrepreneurship employed by the sport industry to navigate challenges and capitalize on opportunities?*

In pursuit of a comprehensive response to the overarching research question, this doctoral dissertation unfolds with five distinct sub-research questions that form the cornerstone of this investigation. Each of these research inquiries intricately contributes to a holistic understanding of the interplay between sport entrepreneurship and the sport industry. These questions are delineated as follows:

*Sub-question 1:*                    *How did international football clubs respond to COVID-19, and what sport entrepreneurial dynamics emerged from the crisis?*

The COVID-19 pandemic created a unique set of challenges for international football clubs, which had to adapt quickly to a rapidly changing environment. This research question is driven by the need to explore how clubs across different regions and leagues responded to the crisis. By analyzing the specific strategies implemented by these clubs,

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such as diversification of revenue streams, digital engagement with fans, and creative sponsorships, we can gain insights into the sport entrepreneurial dynamics that emerged. Furthermore, examining crisis-related innovations and adaptations may offer valuable lessons for the future resilience of the football industry.

*Sub-question 2: What is the relationship between managing a sport career and conducting an entrepreneurial initiative?*

High-level athletes often develop extensive social capital while managing their athletic careers. This research question explores the mechanisms by which athletes convert their social capital into entrepreneurial assets. By focusing on the capacity component in both processes, managing a sport career, and conducting an entrepreneurial initiative, we can better understand the similarities and differences between the entrepreneurial and sport processes.

*Sub-question 3: What is the relationship between entrepreneurial strategies and organizational performance in professional football clubs?*

Professional football clubs operate in a multifaceted ecosystem in which they compete against other clubs in various dimensions. This research question seeks to unravel how entrepreneurial orientation influences the financial and sport performance of football clubs. Analyzing the entrepreneurial orientation of football clubs, including innovation, risk-taking, and proactiveness, can provide a deeper understanding of their performance outcomes. Additionally, by exploring how clubs navigate cooperative relationships with their competitors, we can gain insights into the intricate dynamics of the football industry and the role of entrepreneurship in shaping it.

*Sub-question 4: What influences the career transitions of professional football players, and what is the potential value of introducing sport entrepreneurship?*

The post-football career transition for professional football players is a critical phase, often marked by uncertainty and challenges. Investigating the factors that influence these transitions, such as educational opportunities, career counseling, and supportive networks, can offer practical guidance for both players and sport organizations (Stambulova & Wylleman, 2019). The potential value of introducing sport entrepreneurship as a second career pathway lies in providing players with the skills and mindset necessary for success in business and entrepreneurship. It also contributes to the long-term welfare of athletes by enabling them to leverage their unique experiences and insights. This research question highlights the significance of tailored support systems and entrepreneurial initiatives for players in their career journeys.

*Sub-question 5: How has research evolved in sport entrepreneurship, and how can an integrated model guide future research?*



The field of sport entrepreneurship has seen a proliferation of research topics and methodologies over time. To comprehensively understand this evolution, we need to trace research development from its early stages to the present. An integrated model synthesizing key themes, findings, and gaps in sport entrepreneurship literature can serve as a valuable roadmap for future research endeavors. It will enable researchers to identify areas that require further exploration and provide a structured foundation for generating new knowledge. Moreover, such a model will be instrumental in assisting practitioners and policymakers in making informed decisions to enhance entrepreneurial dynamics within the sport industry, contributing to its continuous growth and adaptation.

A summary of the research question and its sub-questions is presented below (Table 2).

Table 2: Summary of the research questions

<b>Overall title</b>	<b>Overall research question</b>
Sport entrepreneurship dynamics: Insights from professional football and beyond	<i>How is sport entrepreneurship employed by the sport industry to navigate challenges and capitalize on opportunities?</i>
<b>Publication titles</b>	<b>Sub-questions</b>
<i>Publication I</i> Professional football clubs and empirical evidence from the COVID-19 crisis: Time for sport entrepreneurship?	<i>How did international football clubs respond to COVID-19, and what sport entrepreneurial dynamics emerged from the crisis?</i>
<i>Publication II</i> Converting sporting capacity to entrepreneurial capacity: A process perspective	<i>What is the relationship between managing a sport career and conducting an entrepreneurial initiative?</i>
<i>Publication III</i> Entrepreneurial orientation in sports entrepreneurship – A mixed methods analysis of professional soccer clubs in the German-speaking countries	<i>What is the relationship between entrepreneurial strategies and organizational performance in professional football clubs?</i>
<i>Publication IV</i> Rethinking dual careers: Success factors for career transition of professional football players and the role of sport entrepreneurship	<i>What influences the career transitions of professional football players, and what is the potential value of introducing sport entrepreneurship?</i>
<i>Publication V</i> Sport entrepreneurship: The role of innovation and creativity in sport management	<i>How has research evolved in sport entrepreneurship, and how can an integrated model guide future research?</i>

## 1.4 Methodology and research progression

This study utilizes a methodical approach that progresses logically through distinct phases. It initially concentrates on specific aspects, such as how international football clubs have responded to the COVID-19 pandemic, using a multiple-case study. This exploratory approach offers valuable insights into how sport entrepreneurial strategies are employed to address contemporary challenges in the professional football industry, providing a real-world context to the research. Subsequently, the methodology incorporates a literature review and comparative analysis approach to systematically understand the relationship between individual capacities developed in managing a sport career and entrepreneurship. The research progression within this dissertation encompasses a mixed-method approach. Quantitative surveys are utilized to gather valuable data, while qualitative expert interviews provide deeper insights into the perspectives and experiences of key stakeholders in the sport–entrepreneurship nexus. This multifaceted approach contributes to a more holistic understanding of the role of entrepreneurship in sport organizations. Furthermore, a logit model analysis is employed to predict and comprehend the probabilities of specific qualitative outcomes, shedding light on the factors that influence the career transitions of professional football players. This research progression connects the experiences of athletes to broader entrepreneurial themes and introduces sport entrepreneurship as a complementary concept. As the study advances, it widens its focus to encompass broader themes, such as the evolution and integration of research in the field of sport entrepreneurship. This expansion is facilitated through a systematic literature review and bibliometric analysis, offering a comprehensive overview of existing research on sport entrepreneurship. The research’s logical progression culminates in a comprehensive understanding of sport entrepreneurship dynamics, not only within the professional football industry but also in its potential applicability in broader contexts. By combining different methods, this research aims to present a thorough perspective. This holistic approach enables the dissertation to construct an extensive and forward-looking narrative regarding the dynamics of sport entrepreneurship.

## 1.5 Contributions of the dissertation

This dissertation makes several significant contributions to the understanding of sport entrepreneurship, particularly within the professional football industry, and its broader applicability. These contributions are derived from the research questions underlying the five publications that form the basis of this dissertation. Each publication offers a unique contribution, collectively enriching the overall body of knowledge.

Publication I delves into the strategies adapted by international football clubs responding to the unprecedented COVID-19 crisis. This contribution provides valuable insights into crisis management and entrepreneurial strategies as responses within the sport industry. It lays the groundwork for enhancing the understanding of the occurrence and effects of sport entrepreneurship dynamics in the context of crises.

Publication II sheds light on the relationship between the processes involved in managing a personal, professional sport career and conducting an entrepreneurial initiative. It emphasizes the capacity component in each process, highlighting the existing clarity in the entrepreneurship literature while identifying a lack of multi-component approaches in understanding the management of a professional sport career.

Publication III unravels the intricate relationship between entrepreneurial orientation and organizational performance within professional football clubs. In addition, it adds cooptation as a potential strategy for leveraging resources. This contribution deepens our understanding of how entrepreneurial approaches impact the financial and sport success of sport organizations, offering valuable insights for both scholars and practitioners.

Publication IV identifies the critical success factors that shape the career transitions of professional football players, with a particular emphasis on the role of sport entrepreneurship. This contribution is of practical significance for athletes seeking to engage in entrepreneurship, thereby enhancing their prospects for successful transitions.

The dissertation concludes with Publication V, which provides an overview and the thematic evolution of the literature on sport entrepreneurship, innovation, and creativity. Furthermore, an integrated model is presented that fosters a cohesive approach toward the framework of sport entrepreneurship. This model serves as a forward-looking perspective that may guide future research in the field of sport entrepreneurship.

## **1.6 Structure of the dissertation**

The structure of this dissertation is organized in two main parts, each serving a distinct purpose. The first part addresses the primary research question within the overall dissertation. The second part encompasses the individual publications that form the foundation of this dissertation.

Section one begins with an introduction on the literature behind this research, offering insights into the motivation, context and significance of the study. It further provides an overview of the background, shedding light on the academic and industry landscapes in which this research is situated. In this section, the research gap is explored, leading to the formulation of the research questions that guide the investigation. The theoretical foundation is laid, integrating insights from entrepreneurship and sport management, to facilitate a comprehensive understanding of the subject matter. The methodologies employed in each of the publications are outlined, setting the stage for the subsequent insights. Then, the results and findings from the individual publications are synthesized. Finally, the conclusion section offers a comprehensive overview, discussing the key findings and their implications.

The second section is devoted to the publications that underpin this dissertation. The publications serve as the empirical foundations for answering the sub-research questions and, consequently, the overall research question.

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## 2 Theoretical foundations

### 2.1 Sport entrepreneurship

The global sport industry represents a significant and ever-expanding sector of the world economy (Frisby, 2005). Over the years, many sport organizations have grown from non-profit sport organizations to sport business corporates. This transformation has played a crucial role in molding the sport industry into a rapidly expanding sector, steadily augmenting its impact on the broader economic landscape (Zhang et al., 2018). The significant influence of sport in our everyday existence has prompted extensive research from diverse viewpoints (Olivier, 2006). However, there is a limited understanding of sport through an entrepreneurial lens (Pellegrini et al., 2020). In recent years, academics have been quick to acknowledge this research gap, leading to a proliferation of academic articles on sport entrepreneurship (González-Serrano et al., 2020). However, the emerging but unorganized increase in publications has resulted in a scattered research landscape, posing challenges in identifying distinct conceptual boundaries for sport entrepreneurship. Furthermore, when viewed through an evolutionary lens, the factors that have shaped the intellectual framework of the field remain largely unclear. As a result, the historical evolution of sport entrepreneurship has been marked by a journey from insignificance to increasing recognition, with an ongoing quest for a well-defined conceptual framework (Bjärsholm, 2017).

#### 2.1.1 Scholarship and conceptualizations in sport entrepreneurship

Research has increasingly emphasized the significance of entrepreneurial characteristics within sport management, highlighting their crucial role in the success and prosperity of sport businesses (Ball, 2005; González-Serrano et al., 2020; Pellegrini et al., 2020). The professional sport environment, with its internationalization, growth in team and event funding, sponsorships, and extensive media coverage, provides an increasing potential for entrepreneurship to thrive (Ratten, 2015).

One of the primary challenges within the field of sport entrepreneurship is the absence of a universally accepted and well-defined concept. The terminology surrounding sport entrepreneurship remains ambiguous, resulting in a lack of consensus and interpretational variance (Sharma & Chrisman, 1999). This ambiguity compounds the existing challenges in entrepreneurship research, which is already characterized by imprecision and inconsistency in its terminology (Bygrave & Hofer, 1992). The contextual inclusion of sport further complicates the matter, highlighting the need for cohesive scientific terms to foster an improved understanding in the field of sport entrepreneurship (Bjärsholm, 2017). Attempts have been made to define sport entrepreneurship, but these definitions are diverse and occasionally incongruent. Ratten (2010) introduced the concept of sport-based entrepreneurship, defining an entrepreneurial sport organization as “[...] a sport-related organization acting innovatively in a business context” (p. 559). More recently, sport entrepreneurship has been defined as “developing new start-ups or ventures that

engage with sport” (Ratten, 2018, p. 13). A further refinement describes sport entrepreneurship as “the exploitation of opportunities within the sport sector to create change” (Ratten, 2018, p. 13). These definitions, while valuable, reveal the ongoing need for further refinement and consensus within academic and practitioner communities.

The prolific growth of academic interest in sport entrepreneurship has created a diverse body of literature, reflecting the complex nature of sport entrepreneurship. This growth is encouraging, but it has also led to the fragmentation of the field. Thus, the current state of research in sport entrepreneurship necessitates systematic development and consolidation. The work of Pellegrini et al. (2020) focused on structural developments in sport entrepreneurship. Through a systematic literature review and a biometric analysis, the work analyzed the current literature on sport entrepreneurship and proposes four main thematic areas: (1) theoretical definitions and internal factors, (2) environmental factors, (3) pedagogical approaches and education, and (4) the impact on community development and social benefits. These findings represent the diverse dimensions of sport entrepreneurship, underscoring the need for a comprehensive theoretical framework. In the absence of such a framework, the intellectual structure of sport entrepreneurship research remains uncertain, with significant opportunities for further exploration. Entrepreneurship in sport is not a monolithic concept but manifests in various forms. As seen in Figure 1, Community-based entrepreneurship, corporate entrepreneurship, and social entrepreneurship are just a few examples of how entrepreneurship takes different shapes within the sport industry (Ratten, 2011).



Figure 1: Dynamic aspects and categories of sport entrepreneurship according to Ratten (2011)

One of the significant values of entrepreneurship in sport management lies in its ability to simplify the complex nature of sport management, thereby enhancing its efficiency (Ball, 2005; Ratten & Ciletti, 2011). Sport managers who embrace entrepreneurial approaches have the potential to break down the intricate web of challenges they face and respond effectively to the changing dynamics and opportunities of the sport industry.

The academic community, in collaboration with industry practitioners, must work toward a systematic development of this field, focusing on consolidating existing knowledge and

addressing identified research gaps. This effort should emphasize fostering a deeper understanding of sport entrepreneurship within the broader context of sport management and entrepreneurship studies. Achieving a clear and widely accepted conceptual framework is crucial for advancing our understanding of sport entrepreneurship and its role in shaping the future of the sport industry.

### 2.1.2 The importance of innovation for sport entrepreneurship

Sport entrepreneurship has emerged as a multifaceted process involving aspects such as opportunity identification, innovation, and economic growth (Pellegrini et al., 2020). In particular, the fusion of entrepreneurship and innovation is at the core of many advancements within the sport industry (Escamilla-Fajardo et al., 2022). It is important to note that entrepreneurship is inherently linked to the notion of innovation, which acts as a powerful facilitator and fundamental component of entrepreneurial activities (Hughes & Morgan, 2007; Kraus et al., 2012; Wiklund & Shepherd, 2005). Within the field of sport, innovation stands as an indispensable enabler of entrepreneurial behavior, playing a pivotal role in generating novel ideas and creating significant value. More than just a competitive advantage, innovation is now a prerequisite for adaptability and renewal within the sport industry (Gerke, 2016).

According to Ayazi et al. (2015), the application of sport entrepreneurship pertains to seizing entrepreneurial opportunities within the context of sport, driven by an innovative improvement of the market. These innovations are exemplified by events such as the Red Bull Air Race, the rapid rise of esports, and the creation of new sports like CrossFit (Pizzo et al., 2018; Ratten & Jones, 2020; Yoshida et al., 2013). Within the domain of sport innovation, one notable and emerging area of research pertains to fan engagement. Sport organizations are increasingly embracing innovation to enhance the experiences, preferences, and emotions of fans. Cutting-edge technological solutions, such as decision-aiding tools and complementary digital experiences, are now being explored regarding their effects on fan engagement (Winand et al., 2021; Yuksel et al., 2021). Nevertheless, the application of innovation in this context is not without its challenges, and it is essential to consider its potential drawbacks. For instance, how innovative legal sport betting is influencing fan engagement is a topic of concern (Blank et al., 2021). Moreover, the emergence of “smart” stadiums, influencing innovation in sport, raises ethical concerns regarding the utilization of big data in the sport domain (Yang & Cole, 2022). For researchers and practitioners in sport innovation, it is crucial to monitor the reception of innovations by the environment and fans. Achieving a harmonious balance between leveraging technology for fan engagement and addressing its potential challenges is a crucial consideration (Winand et al., 2021).

Moreover, the COVID-19 pandemic has underscored the importance of innovative approaches in managing crises within the sport sector. Two noteworthy studies underscore this perspective. The first study emphasizes the pressing need for tennis federations in Latin America to cultivate a more innovative mindset, enabling them to address future crises (Crespo Celda et al., 2022). The second study emphasizes the

importance of integrating both physical and digital innovations in sport clubs to ensure the continued practice of sport for individuals with disabilities during the pandemic (Hayton, 2021). During the pandemic, there was a heightened demand for technology to address the challenges faced. Technological innovations played a crucial role in devising creative solutions to navigate the limitations imposed by social distancing measures (Ratten, 2020). Notably, digital technologies were increasingly emphasized to enhance the fan experience for live TV sport spectators (Majumdar & Naha, 2020).

As previously mentioned, innovation is a crucial element of the concept of entrepreneurship in general. However, research on sport entrepreneurship is fragmented, and the same applies to the literature on innovation and sport entrepreneurship more broadly (González-Serrano et al., 2020). The interconnection between innovation and entrepreneurship is apparent but mostly overlooked in the sport management literature and requires further investigation. In the sport management literature, innovation is often researched as a distinct framework. However, it may be more appropriate to regard innovation as a distinct skill of an entrepreneur—the ability to generate ideas that create value, nurtured through creativity (Fillis & Rentschler, 2010). To gain traction and exploit its potential, innovation requires additional entrepreneurial skills, such as proactivity and risk-taking (Kraus et al., 2012). These findings highlight the intricacy of generating entrepreneurial value and stress the importance of viewing innovation from a holistic entrepreneurial standpoint.

## **2.2 Challenges and opportunities in the sport industry**

The concept of entrepreneurship is a valuable managerial tool for overcoming business challenges and involves exploiting opportunities (Shane, 2003). Entrepreneurship is an approach rather than a specific recommendation for action (Wiklund, 1999). An entrepreneurial mindset equips the entrepreneur with the necessary skills to master short-term and complex opportunities and challenges, as they often occur in sport (Szymanski & Weimar, 2019).

To better comprehend the dynamics of sport entrepreneurship, it is crucial to examine and understand the relevant challenges and opportunities in sport. This will enable us to investigate whether and how an entrepreneurial perspective can be specifically beneficial in sport. The following part is dedicated to the unique challenges and opportunities of the sport industry. Table 3 provides a brief overview at the end of this section.

### **2.2.1 Addressing challenges in the sport industry**

Encompassing an array of activities, spanning professional sport clubs, mega-events, and community sport, the sport industry faces a complex set of challenges. Examining the details of sport can enhance our comprehension of the challenges involved (Smith & Stewart, 2010). A distinct feature of the sport industry includes elements of impermanence and uncertainty. Sport events are inherently unpredictable, requiring

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appropriate managerial behavior to navigate these challenges (McMullen & Shepherd, 2006). The unpredictability within this industry can result in fluctuating revenue streams, obstruct long-term planning, and complicate resource allocation. Furthermore, it necessitates adaptability, resilience, and the ability to make informed decisions in the face of constant change. Effectively managing and strategically assessing this uncertainty is imperative, as it plays a pivotal role in enhancing business success within the sport industry, particularly in the quest for gaining a competitive advantage (Ratten & Jones, 2020). In this context, managerial behavior emerges as an important asset. It thrives in uncertain conditions, equipping leaders to navigate unpredictability and harness its potential benefits (Kuratko et al., 2021).

The sport industry is highly responsive to shifting customer demands and the emergence of new disciplines (Jones et al., 2017). Adapting to evolving preferences is a challenge because customers have a wide variety of interests, as, for example, evidenced by the rise of esports (Pizzo et al., 2018). Traditional sport, while enduring, now coexists with emerging disciplines, expanding the definition of sport and requiring adaptability to engage a dynamic fan base, ensuring the continued relevance and competitiveness of sport organizations. Additionally, the sport industry faces a significant challenge during times of crisis, as exemplified by the COVID-19 pandemic. The sport industry's economic foundation, which is based on income generated from ticket sales, broadcasting rights, and sponsorships, is dependent on the occurrence of the actual sport events (Bühler, 2006). The financial vulnerability of the sector is due to its heavy reliance on public gatherings and audience participation, which were impeded by travel restrictions and physical distancing during the pandemic. Moreover, research has shown that the pandemic influence athletes' performance. Current research has shown that the lack of home fans during the COVID-19 pandemic had a direct negative impact on the home team's performance (Leitner et al., 2023). However, this challenge is twofold. Clubs not only encounter heightened vulnerability during a crisis, but the sport industry itself is inherently prone to such disruptions. Crisis management and far-sighted planning in sport is complex due to the considerable variability of outcomes (Smith & Stewart, 2010). Athletes' performances, and consequently game results, are uncertain, and any adverse shocks, such as disruptions to health, well-being, or participation, can precipitate sport crises and financial difficulties (Szymanski & Kuypers, 1999).

Moreover, the sport industry faces a structural challenge stemming from its increasing commercialization and professionalization (Gammelsæter, 2021). As the industry's commercial significance expands, professional sport clubs adopt a more business-oriented mindset (Ribeiro et al., 2019). Regarding organizational structure, revenue and firm size (number of employees), these sport organizations share similarities with small-to-medium-sized enterprises (SMEs) (Moore & Levermore, 2012). The transformation from sport community clubs to SMEs presents a substantial challenge, demanding the reconfiguration of their administrative structure and management strategies (Ribeiro et al., 2019).



One of the most challenging tasks in the sport industry is achieving and maintaining financial sustainability (Hamil & Walters, 2010). While sport organizations strive for excellence on the field, they are equally compelled to balance their budgets and ensure their financial health. The pursuit of both winning and profitability is fundamental to their success (Fort & Quirk, 2004). This is a complex undertaking, as the pursuit of sport success often demands substantial investments in player salaries, infrastructure, and technology (Dimitropoulos & Limperopoulos, 2014). Similarly, Szymanski and Smith (2010), and Frick and Simmons (2008) suggested that investing in football players is a means to enhance athletic performance. Hence, sport clubs typically prioritize athletic performance over profit, investing their available resources (Garcia-del-Barrio & Szymanski, 2009). However, this balance is precarious, and organizations must ensure that their financial commitments do not lead to unsustainable levels of debt or operating deficits (Pinnuck & Potter, 2006). Research indicates that financial sustainability is a challenge not only for professional clubs but also smaller sport organizations and amateur clubs. These organizations may lack the resources and proactivity of their larger counterparts, making financial stability a constant concern (Escamilla-Fajardo et al., 2021). However, the quest for financial sustainability and athletic success can coexist harmoniously when guided by a robust managerial strategy (Fort & Quirk, 2004).

### **2.2.2 Exploring opportunities in the sport industry**

Amid its challenges, the sport industry also presents a wealth of opportunities. One of the most prominent opportunities in the sport industry lies in its substantial economic potential. Professional sport leagues, events, and franchises contribute significantly to local and national economies (Ciomaga, 2013). Research suggests that sport can serve as a catalyst for economic development through tourism (Tyson et al., 2005), infrastructure investment (Solberg & Preuss, 2007), and increased consumer spending (Terjesen, 2008). Sport corporate initiatives, when strategically managed through entrepreneurial approaches, can create lasting economic and social impacts, further amplifying the industry's potential (Schyvinck et al., 2021).

Major sporting events, exemplified by the Olympics, have proven instrumental in increasing economic activity within host countries (Tien et al., 2011). These events not only attract visitors but also significantly contribute to local businesses' revenue, fostering employment and fueling economic growth (Tyson et al., 2005). The sport event industry is a fertile ground for the emergence of entrepreneurial ventures, often influenced by external conditions. Events such as the FIFA World Cup stimulate entrepreneurial opportunities in host communities, enabling economic growth and fostering the development of micro-enterprises (Briedenhann, 2011).

The engagement of sport celebrities brings an additional dimension of opportunity. Athletes are now viewed as cultural assets that can be marketed as distinct "brands" (Carlson & Donovan, 2013). The rise of athlete brands, interwoven with contemporary media culture, represents a significant opportunity for the sport industry. Athletes employ various strategies, leveraging their triumphs or setbacks, to transform their careers into

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personal brands, emphasizing the necessity for strategic branding grounded in marketing theory (Arai et al., 2014). Nowadays, athletes utilize social media platforms and engage with fans to craft authentic brands. Through online interaction with fans, athletes proactively shape their representation, offering the sport industry an opportunity to harness strategies for cultivating authentic athlete brands that resonate with contemporary consumer expectations (Toffoletti & Thorpe, 2018). Consequently, renowned athletes can use their personal brand to sell products and services via social media and thus become entrepreneurs (Rialti et al., 2018). Beyond its economic implications, these collaborations can generate substantial social value, creating diverse avenues for various sport-related opportunities (Moustakas & Kalina, 2021).

Professional sport teams, particularly in the realm of football (soccer), have a notable economic impact (Szymanski & Smith, 2010). These organizations contribute to the local economy by generating revenue through ticket sales, merchandise, and sponsorships (Pinnuck & Potter, 2006). Their operations create jobs and stimulate associated industries, from hospitality to retail (Roşca, 2010). The economic significance of sport organizations, coupled with their ability to attract investments (Rohde & Breuer, 2017), presents a unique avenue for economic development.

The integration of technology in fan engagement has transformed the way sport fans interact with their favorite teams. Social media, mobile apps, and virtual reality experiences offer new channels for fans to connect with their teams and access content (Yuksel et al., 2021). Innovations in technology not only enhance fan engagement but also improve the control of financial resources within sport organizations (Miragaia et al., 2019). This dynamic intersection of sport and technology presents numerous opportunities for entrepreneurs and businesses, evident in the growing influence of esports within the sport industry (Hayduk & Walker, 2018). Esports has not only created new avenues for entertainment but has also provided opportunities for businesses involved in gaming hardware, software development, and broadcasting (Watanabe et al., 2021). Moreover, devices such as fitness trackers and smart clothing have become integral to training and injury prevention (Yang, 2018). The market for these technologies has expanded, providing opportunities for startups and established tech companies (Arogam et al., 2019).

In addition to economic gains, the sport industry offers substantial opportunities for social impact and community engagement (Hayduk & Walker, 2018). Sport organizations have considerable influence on the social environment of their communities, and research underscores the importance of understanding how business factors shape their impact and performance (Misener & Doherty, 2014). Sport experiences transcend mere consumption; they inspire and unify consumers on an emotional level, whether individually, in groups, or as part of a community (Ratten & Jones, 2020). Sport organizations actively promote social development and community engagement through various initiatives and programs. One example is collaborating on community-based projects with a focus on education, health, and youth development (Franco & Pessoa, 2014). These programs benefit local communities and exemplify the industry's dedication to social responsibility

and outreach. In addition, sport plays a crucial role in teaching social values and offering role models. The engagement of youth in sport instills discipline, teamwork, and a sense of accomplishment, especially in underprivileged communities (Schulenkorf et al., 2016; Stronach et al., 2023). The industry's capacity to foster cultural exchange platforms, intergroup celebration, and intercultural learning further underscores its potential for significant social impact on society (Schulenkorf et al., 2011). In essence, the opportunities and challenges within the sport industry are vast, encompassing economic, technological, and social dimensions that collectively contribute to its multifaceted impact on global communities (Table 3).

Table 3: Summary of the challenges and opportunities in the sport industry

<b>Challenges</b>	<b>Opportunities</b>
<p><i>Impermanence and Uncertainty</i></p> <ul style="list-style-type: none"> <li>- Uncertainty in athlete performance</li> <li>- Fluctuating revenue streams and resource allocation</li> <li>- Adaptability and resilience required</li> <li>- Dependency on public gatherings and audience participation</li> <li>- Vulnerability during crises (e.g., the COVID-19 pandemic)</li> <li>- Complex planning due to variability in outcomes</li> </ul>	<p><i>Economic Potential</i></p> <ul style="list-style-type: none"> <li>- Catalyst for economic development</li> <li>- Tourism, infrastructure investment</li> <li>- Increased consumer spending</li> <li>- Sport corporate initiatives</li> <li>- Job creation and stimulation of industries</li> <li>- Attracting investments for economic development</li> </ul>
<p><i>Commercialization and Professionalization</i></p> <ul style="list-style-type: none"> <li>- Shift from community clubs to SMEs</li> <li>- Balancing business orientation and sport mission</li> <li>- Structural changes in organizational and managerial strategies</li> </ul>	<p><i>Sport Celebrity Engagement</i></p> <ul style="list-style-type: none"> <li>- Athlete branding as a “cultural asset”</li> <li>- Social media platforms for brand building</li> <li>- Transition of athletes into entrepreneurs</li> </ul>
<p><i>Financial Sustainability</i></p> <ul style="list-style-type: none"> <li>- Balancing budgets and investments in players, infrastructure, and technology</li> <li>- Balancing economic gains with performance pursuit</li> <li>- Avoiding unsustainable levels of debt</li> <li>- Management of financial commitments</li> </ul>	<p><i>Technology in Fan Engagement</i></p> <ul style="list-style-type: none"> <li>- Social media, mobile apps, virtual reality</li> <li>- Esports industry growth and opportunities</li> <li>- Wearable technology for athlete performance monitoring</li> </ul>

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*Social Impact and Community Engagement*

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- Community-based projects in education, health, and youth development
  - Fostering cultural exchange and intercultural learning
  - Teaching social values through sport
  - Positive impact on underprivileged communities
  - Sport as a platform for intergroup celebration and learning
- 

## 2.3 Entrepreneurial dynamics in sport

To navigate challenges and capitalize opportunities in the sport industry, entrepreneurship has proven to be a successful approach, gaining increasing recognition in both research and practice (González-Serrano et al., 2020; Pellegrini et al., 2020). Shane (2000) defines entrepreneurs and their strategies based on their role in contributing to the creation of value. This value can be derived from new products, innovative processes, and the cultivation of emerging markets (Daily et al., 2002; Lumpkin & Dess, 1996; Sharma & Chrisman, 1999). Value creation within the sport landscape is a multifaceted concept that goes beyond mere financial gains. It encompasses a spectrum of outcomes, including economic, social, and cultural benefits. Moreover, the sport industry uniquely combines different forms of value creation concurrently, driven by non-profit missions and the pursuit of competitive success (Smith & Stewart, 2010). Essentially, any aspect that contributes to value can be referred to as an entrepreneurship outcome (Baumol, 1996). This multifaceted approach reflects the diverse and dynamic nature of entrepreneurship in the sport industry, where value takes on various forms and serves a range of stakeholders. Within this section, we take a closer look at current evidence regarding revealed entrepreneurial dynamics in different sport contexts.

### 2.3.1 Organizational performance and sport entrepreneurship

Organizational performance within the sport entrepreneurship literature has become a pivotal area of research, shedding light on the critical role of entrepreneurship in enhancing both economic and sport outcomes (Pellegrini et al., 2020). Entrepreneurship, a concept traditionally associated with business endeavors, has been recognized as a powerful catalyst for improving organizational performance (Kraus et al., 2012; Wiklund & Shepherd, 2005). In the context of sport organizations, the mindset of an entrepreneur has been shown to yield economic efficiencies, thereby conserving resources for investments in the team (Ball, 2005).

Entrepreneurial strategies entail the proactive identification and exploitation of uncertain opportunities. Risk, as distinct from uncertainty, is a factor that can be calculated and predicted. Entrepreneurs actively seek uncertain opportunities while calculating risks to

profit from them (McMullen & Shepherd, 2006). Sport organizations need to cope with uncertainty by nature, as the results of sport competitions are unknown in advance and subject to a high degree of variability (Smith & Stewart, 2010). In addition, the sport industry's success centers on the uncertainty of outcomes since maintaining a competitive balance keeps events exciting and emotionally engaging. This necessitates actively fostering fundamental uncertainty, and as a result, sport organizations allocate resources to support unforeseeable outcomes (Pellegrini et al., 2020). An entrepreneurial orientation supports individuals and organizations to navigate uncertainty effectively and capitalize on its advantages, ultimately resulting in increased value creation (Kuratko et al., 2021). The high level of uncertainty makes the sport industry a promising context for the occurrence of entrepreneurial dynamics and entrepreneurial strategies to gain traction.

Despite their unique mission of winning, sport organizations are increasingly adopting entrepreneurial strategies to enhance economic and social sustainability (Pellegrini et al., 2020). The focus on profits, revenues, and resource optimization has become paramount for successful sport performance (Escamilla-Fajardo, Núñez-Pomar, Ratten, et al., 2020). Recent research supports these findings, demonstrating the positive outcomes of entrepreneurial orientation on sport and social performance in sport organizations (Núñez-Pomar et al., 2020; 2016; Radaelli et al., 2018). Notably, the size of sport organizations and the specific traits of their managers play a vital role in shaping performance outcomes.

Larger clubs, led by risk-taking and innovative managers, are inclined to increase both sport and economic performance (Escamilla-Fajardo et al., 2022). Conversely, professional sport clubs with managers characterized by proactiveness tend to increase economic performance, particularly when compared to their counterparts managing amateur clubs (Escamilla-Fajardo et al., 2021). These findings underscore the significance of tailored entrepreneurial strategies that align with the specific characteristics and goals of sport organizations. While innovation plays a crucial role, the importance of being proactive and risk-taking is evident, emphasizing the significance of all entrepreneurial characteristics for innovation to gain traction. Developing strategies that promote entrepreneurship in sport clubs is crucial, especially considering the lack of research analyzing the entrepreneurial capacity of sport organizations and their performance (Núñez-Pomar et al., 2020).

The adaptability and transformative capacity of sport organizations, driven by entrepreneurial thinking, enable them to meet the evolving demands of their customers and navigate through challenging periods (Ball, 2005). This adaptability extends to technology being leveraged to enhance financial control within sport clubs, thereby boosting sport performance (Miragaia et al., 2019). Investments in technology and digital media have gained momentum, reflecting the sport industry's ability to foster sport entrepreneurial behavior (Hayduk & Newland, 2020; Hayduk & Walker, 2018). Nevertheless, the financial impact of esports activities remains modest compared to traditional revenue streams, highlighting that disruptive innovations in sport are struggling to gain traction (Lefebvre et al., 2020). To facilitate the adoption of

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innovations, organizations can foster entrepreneurship by cultivating a supportive organizational atmosphere (Meoli et al., 2020). Research suggests that entrepreneurship is not just a strategic choice but a managerial necessity to maintain competitiveness in the fiercely contested sport market (Legg & Gough, 2012). In addition, in times of crisis and instability, entrepreneurship emerges as a fundamental tool for effective business management in the sport industry (Crespo Celda et al., 2022; Escamilla-Fajardo, Núñez-Pomar, Calabuig, et al., 2020).

The diverse forms of entrepreneurship within the sport industry, ranging from technology adoption to sporting events and partnerships, emphasize its importance in a rapidly changing landscape. As the sport industry continues to evolve, the entrepreneurial mindset has become an essential tool for achieving competitiveness and success in this highly dynamic environment. However, the antecedents and effects of entrepreneurial dynamics remain still largely unclear.

### 2.3.2 Individual entrepreneurship and the role of the athlete

The field of sport entrepreneurship has gained increasing attention from various perspectives. In addition to organizational research, a significant perspective focuses on individual entrepreneurship, drawing insights on the dynamics of the entrepreneurial behavior and impact of athletes.

When athletes end their active sport careers and transit to a second career, entrepreneurial endeavors are a viable option. Vilanova and Puig (2016) highlight the significance of this transition process, emphasizing that preparation for retirement begins while athletes are still actively engaged in their sport careers. Most athletes need to pursue employment alongside their sport careers (dual career) (Cartigny et al., 2019). While the primary objective of this job is to ensure financial stability, athletes are simultaneously initiating their transition process to a after sport career by accumulating work experience in a dual career (Wylleman et al., 2004). For a successful transition process, athletes or their agents must employ strategic skills in athletic career management, enabling the development of human capital alongside their athletic careers (Stambulova & Wylleman, 2019). Kenny (2015) underscores the need to learn entrepreneurial skills during this career transition phase, emphasizing the necessity of understanding and addressing the challenges athletes face when seeking new professional directions. Entrepreneurial education not only promotes self-efficacy but also contributes to developing entrepreneurial employees (Falck et al., 2012). Entrepreneurial education emerges as a key facilitator in athletes' transition to entrepreneurship (Miragaia & Soares, 2017).

The transferability of skills acquired in sport to entrepreneurial settings is a recurrent theme in the literature (Hemme et al., 2017; Pellegrini et al., 2020; Steinbrink et al., 2020). Through their experiences in elite sport, athletes develop skills that prove valuable in entrepreneurial pursuits (Hemme et al., 2017). Points of intersection with sport entrepreneurship encompass various aspects, such as the social and cognitive orientation of prominent sport individuals. These influencers have a significant impact on the market

through their recommendations and possess the capacity to leverage their social standing in entrepreneurship (Parmentier & Fischer, 2012). Athletes can cultivate entrepreneurial resources parallel to their careers by establishing themselves as a brand (Arai et al., 2014). A successful established brand of an athlete can be particularly valuable, offering external rewards during their active sport careers and proving advantageous when they embark on new business ventures after retirement (Parmentier & Fischer, 2012). This implies that athletes can use their sport achievements as a foundation to initiate entrepreneurship and gain valuable experience (Ratten, 2015). In addition, networking and social capital are key to athletes' entrepreneurial journeys. Athletes, with extensive social networks and valuable contacts from their careers, leverage these assets effectively in entrepreneurship (Foley & O'Connor, 2013). In addition, individuals with previous entrepreneurial experience are more inclined to recognize and capitalize on business opportunities. Leveraging these assets has been shown to enhance success as an entrepreneur (Davidsson & Honig, 2003; Gielnik et al., 2018). This implies that athletes may enjoy a distinct advantage when embarking on entrepreneurial endeavors.

Moreover, the literature highlights the interconnectivity between entrepreneurial orientation and being an athlete. Compared to the general population, athletes tend to demonstrate a more favorable attitude toward entrepreneurship (Pellegrini et al., 2020; Teixeira & Forte, 2017). This orientation can be attributed to their internal characteristics, such as resilience, a strong need for achievement, and a high locus of control, which are vital for both their athletic and entrepreneurial endeavors (Jones & Jones, 2014). While athletes possess a wealth of skills and attributes conducive to entrepreneurship, further research is needed to explore the role of sport entrepreneurs in the sport industry. It is crucial to understand the process from this potential state and how to stimulate entrepreneurial capacity to actual entrepreneurial behavior among athletes (Teixeira & Forte, 2017). The process of entrepreneurship and the entrepreneurial capacity needed for that process are well-established in contemporary research on individual entrepreneurship (Pilegaard et al., 2010; Ucbasaran et al., 2001). However, the application of these concepts in the field of sport management is currently underdeveloped. In addition, examining the factors contributing to the failure or success of athletes engaging in sport entrepreneurship is crucial for advancing our understanding of the interplay between sport and entrepreneurship, as well as its impact on value creation in the sport industry.

### **2.3.3 The significant role of professional football**

To study entrepreneurial dynamics in sport, whether organizational or individual, it is crucial to clarify the context in which they are studied. This dissertation focuses thereby on football (soccer), the largest sport in the world.

Professional football represents a unique and dynamic landscape within the broader realm of the sport industry. Szymanski and Kuypers (1999) underscored the profound economic and entertainment dimensions of professional football, acknowledging its capacity to captivate large audiences and generate substantial revenue. Football serves as a prime example of the sport industry's inherent unpredictability and the dynamic nature of match

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outcomes. The sport thrives on impermanence and uncertainty, creating an environment where unknown and unpredictable results are the driving force behind building suspense, engaging spectators, and providing an exciting consumer experience (Pellegrini et al., 2020; Smith & Stewart, 2010). Professional football clubs, however, encompass a more diverse range of value creation. They may pursue social value, community engagement, and non-profit missions (Reiche, 2013), with profitability serving as a means to an end, such as achieving victories (Smith & Stewart, 2010). This distinction highlights the complex nature of football, making it a promising research context to examine sport entrepreneurial dynamics.

Entrepreneurship and innovation in football can manifest in various forms, including technical health innovations (Aroganam et al., 2019), technical-tactical innovations (Trequattrini et al., 2016), or innovation in referee technologies (Winand et al., 2021). Research in entrepreneurship and innovation in football is on the rise, and football clubs are increasingly exhibiting economic, sport, and social impact (Escamilla-Fajardo, Núñez-Pomar, Ratten, et al., 2020). For example, the positive impact of football events on host communities underscores the potential for entrepreneurial opportunities. These events draw in tourists, generate additional revenue for tourism-related entrepreneurs, and stimulate businesses associated with sport (Devine et al., 2010). Moreover, the emerging digital landscape of football presents abundant opportunities for innovation and fan engagement. For instance, the adoption and emergence of the esports industry is most present in football (Lefebvre et al., 2020).

Football, inherently a social enterprise, has evolved toward a business entity (Morrow, 2013; Ribeiro et al., 2019). With significantly heightened revenue streams and shifts in governance structures, football has garnered attention from profit-oriented stakeholders and is currently marked by private investor dominance (Bull & Whittam, 2020; Rohde & Breuer, 2017). With the change in ownership, diverse interests have come to the forefront. Business entrepreneurs are now venturing into sport, leveraging the club's profile for personal gain and capitalizing on it (Rohde & Breuer, 2017). This resemblance to the broader business sector facilitates the transfer and examination of entrepreneurial practices. Introducing the business perspective into examinations of sport entrepreneurship dynamics in football holds the potential to simultaneously provide insights into the distinct realms of both business and social dynamics.

While there has been growing attention to effective management practices in football, there has been limited emphasis from an entrepreneurial standpoint (Bull & Whittam, 2020). As football continues to expand its digital footprint and engage with a global audience, entrepreneurship and innovation become indispensable tools for shaping the future of professional football clubs (Majumdar & Naha, 2020). Nevertheless, the contribution of entrepreneurial and innovative efforts to superior or inferior performances in football remains unclear. External conditions or internal practices seem to soften the opportunities and risks associated with implementing innovation in football (Radaelli et al., 2018). The factors influencing the occurrence and dynamics of entrepreneurship in this context have yet to be robustly researched.



### 2.3.4 Social entrepreneurship in sport entrepreneurship

Social entrepreneurship is a recurring theme in the field of sport entrepreneurship. Although the two concepts are only loosely connected, it is worth exploring the link between them in more detail (Bjärsholm, 2017).

Social entrepreneurship, a term that has transcended various academic disciplines, is a subcategory of entrepreneurship primarily focused on generating social value and creating a positive impact on society. It involves the establishment of social enterprises and initiatives aimed at addressing societal needs (Gupta et al., 2020). Social entrepreneurship within the context of sport underscores the capacity of sport to serve as a powerful platform for social change and community development (Svensson & Hambrick, 2019). Sport's unique ability to engage and unite diverse audiences has made it a compelling vehicle for social entrepreneurship. Sport organizations, whether professional or community-based, have demonstrated the potential to enhance well-being, promote social interaction, and improve the living conditions of their communities (Bjärsholm, 2017). The emotional connection that sport fosters among participants and spectators offers an invaluable platform for initiating social change. Initially, the fields of sport entrepreneurship and social entrepreneurship were considered separate frameworks. However, recent literature highlights the relationship between both concepts (Escamilla-Fajardo, Núñez-Pomar, & Gómez-Tafalla, 2020).

The landscape of sport organizations is notably heterogeneous. On the one hand, professional sport organizations, driven by commercial imperatives, focus on economic success and often align themselves with business structures. On the other hand, community-based sport organizations tend to have a non-profit approach, with less professional structures prioritizing the leverage of innovation to generate social value (Hoeber & Hoeber, 2012). Community-based sport clubs are vital in driving social change within their communities. Their entrepreneurial mindset allows them to exert influence on their surroundings, enhance their community's well-being, and raise awareness of social causes (Escamilla-Fajardo, Núñez-Pomar, & Gómez-Tafalla, 2020). By generating value directly through their activities, these organizations contribute to improving their communities (Pellegrini et al., 2020). Despite the apparent differences between professional and community-based sport organizations, both types share a common social mission (Morrow, 2013).

Moreover, athletes, leveraging their status and influence, can make substantial contributions to social entrepreneurship initiatives within the sport world. While the available assistance for athletes interested in engaging in social entrepreneurship endeavors is still constrained (Moustakas & Kalina, 2021), distinct background influences, such as sport, traumatic and life experiences, steer athletes toward social entrepreneurship. Within this context, the factors capital, opportunity play pivotal roles. The intersection of these three variables, as depicted in Figure 2, guides athletes toward a social value proposition, leading to their emergence as social entrepreneurs through their interactions with sport initiatives (Cohen & Peachey, 2015).

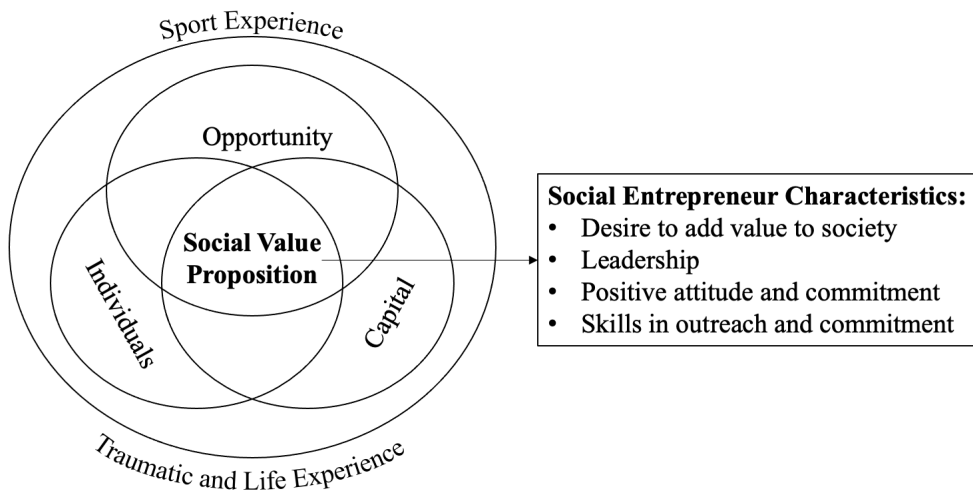


Figure 2: Social value proposition in sport based on the findings of Cohen and Peachey (2015)



## 3 Methods

This dissertation includes five publications dedicated to the examination of sport entrepreneurship dynamics. This section describes the comprehensive research design strategy employed to achieve the research aim of this dissertation. The methodology is structured to encompass the entirety of the dissertation and its associated publications, presenting a holistic approach to addressing the overarching research question. Each publication is dedicated to specific research sub-questions, using different datasets for their analysis. In this section, the research design is systematically outlined, followed by a detailed explanation of the methods employed, illustrating how each method, along with its corresponding data collection and analysis, is applied in the various publications.

### 3.1 Research design and strategy

The first key aspect is the analysis of entrepreneurial and innovative strategies within the context of the sport industry. Publication I explored how international football clubs responded to the COVID-19 crisis within the context of sport entrepreneurship dynamics, utilizing an exploratory multiple-case study approach. Publication II provided insights into the broader concept of sport entrepreneurship and proposed a conceptual framework by integrating insights from entrepreneurship capacity research into sport. Publication III adopted a mixed-methods approach, acknowledging the multidimensionality inherent in exploring complex phenomena within professional football clubs, and built on the understanding of the role of entrepreneurship in sport organizations. Publication IV employed a logit model, functioning as a binary choice regression technique, to examine the longitudinal dataset on the career transitions of professional football players. This helps connect athletes' experiences to broader entrepreneurial themes by predicting probabilities related to players returning to the labor market or opting for entrepreneurship. Publication V employed a dual-methodological framework of a systematic literature review and bibliometric analysis, following PRISMA guidelines, to identify high-quality articles related to innovation, creativity, and entrepreneurship in sport management.

It is important to note that the publications differ in research settings. To holistically analyze sport entrepreneurial dynamics, evidence must be collected within different settings to generate insights from multiple outcomes. Publications I and III analyzed aspects of entrepreneurial behavior within the context of professional football clubs, drawing parallels with organizational entrepreneurial behavior in the well-researched field of SMEs (Clauss et al., 2022; Kraus et al., 2012). Publications II and IV focused on individual entrepreneurship, examining the role of entrepreneurship and the athlete to connect with broader entrepreneurial themes. The dissertation concludes with Publication V, which analyzed the current literature to provide a comprehensive perspective on sport entrepreneurship dynamics. The methods used reflect the adaptive and multifaceted nature of research in the complex sport entrepreneurial environment (Ciomaga, 2013).

Employing diverse research methods is crucial for a holistic analysis of the subject, enabling for a nuanced understanding from different angles.

## 3.2 Method description and data collection

This section describes each of the methods used in this research. Each method selection is tailored to address the research sub-questions and is consistent with the objectives of the publication. It begins with an exposition of the chosen method, followed by its specific application, detailing the process of data collection and analysis within each publication. An overview is provided at the end of this section (Table 4).

### 3.2.1 Publication I: Multiple-case study

The multiple-case study methodology is a promising approach for comprehending nuanced and underexplored aspects within the domain of sport management (Morse & McEvoy, 2014). Drawing on foundational works by scholars like Yin (2009) and Eisenhardt (1989), this qualitative method immerses researchers in the authentic contexts of contemporary issues, especially when the delineation between the research subject and its contextual intricacies becomes unclear. It serves as a robust instrument for generating novel insights and highlighting the intricacies of emerging concepts within the field (Eisenhardt & Graebner, 2007; Gibbert et al., 2008).

This methodological choice thrives on the exploration of multifaceted, complex scenarios, leading researchers to grapple with the “how” and “why” of real-world events (Yin, 2009). While it may not directly produce broadly generalizable findings, its strength lies in its ability to expand theoretical frameworks and provide a solid foundation for subsequent quantitative research. In particular, the emphasis on sport entrepreneurship underscores the gap in theoretical frameworks, justifying the application of the multiple-case study design to shed light on its practical manifestations.

#### *Data collection and analysis*

Publication I employed an exploratory multiple-case study approach to comprehend how professional football clubs (PFCs) navigated the challenges posed by COVID-19 and the role of sport entrepreneurship. The research focused on the CEOs of these clubs, as they possess critical insights into the topic. Data collection primarily involved semi-structured interviews, accommodating flexibility in questioning while centering on specific themes, such as club effects, immediate actions, and anticipated long-term changes due to the pandemic.

Following purposive sampling, 10 CEOs from professional European clubs participated in interviews conducted in April 2020 (Table 5). These interviews, ranging from 20 to 45 minutes, were recorded, transcribed, and coded for thematic analysis. Thematic analysis, chosen for its flexibility and rigorous approach, was executed in the following stages:

transcription, initial coding, grouping codes into themes, and refining these themes to ensure comprehensive and coherent analysis. Four predominant themes emerged: financial management and crisis management, stakeholder engagement, and societal solidarity. To ensure comprehensive analysis, a two-stage refinement process was employed.

Table 5: Participants of Publication I as of April 2020

No.	Participants	League	League level	No. of employees*
<i>Austria</i>				
1	FC Admira Wacker Mödling	Bundesliga	1	20
2	LASK Linz	Bundesliga	1	20
3	SCR Altach	Bundesliga	1	20
4	TSV Hartberg	Bundesliga	1	20
<i>Germany</i>				
5	1. FSV Mainz 05	Bundesliga	1	100
6	SC Paderborn	Bundesliga	1	80
7	SpVgg Greuther Fürth	2. Bundesliga	2	60
<i>Netherlands</i>				
8	AZ Alkmaar	Eredivisie	1	n/a
<i>Sweden</i>				
9	Mjällby AIF	Allsvenskan	1	10
<i>Switzerland</i>				
10	Grasshopper Club Zürich	Challenge League	2	70

\* = without players

This thorough methodology, conducted by two researchers, provided a comprehensive understanding of how sport entrepreneurial entities, represented by these football clubs, navigated through the complexities introduced by the pandemic. This approach shed light on how these entities showcased entrepreneurial agility and adaptability, laying the groundwork for broader discussions within the realm of sport entrepreneurship amid unprecedented challenges.

### 3.2.2 Publication II: Theoretical article

Publication II is a theoretical article compared to the preceding empirical Publication I. The significance of theoretical articles lies in their pivotal role in contributing to emerging research areas. Unlike empirical research, which relies on data collection and hypothesis testing through experiments or observations, theoretical articles are dedicated to the development, extension, or refinement of theories that elucidate phenomena in a specific field (Post et al., 2020).

These articles play a crucial role in clarifying concepts within burgeoning research domains. They establish a foundational understanding of key variables and relationships,

providing researchers in the field with essential insights (Rivard, 2021). This contribution extends to the development of theoretical frameworks that serve as guiding structures for future research endeavors. A well-crafted theoretical framework becomes a roadmap, aiding researchers in exploring and comprehending complex phenomena, especially within nascent fields such as sport entrepreneurship (Pellegrini et al., 2020).

The process of creating a theoretical article involves a systematic approach encompassing a review of existing literature, data synthesis, idea analysis, development of conceptual frameworks, and the proposition of novel theoretical perspectives (Post et al., 2020). Publication II follows a structured methodology that includes a review of relevant literature, a comparative analysis of sport management and entrepreneurship, an exploration of entrepreneurial processes, and an illustration of the nature of sport career management. The publication concludes with implications for practice and future research.

The applicability of a theoretical article is most evident in situations in which the research area is still evolving. In such scenarios, there is a need to establish a robust theoretical foundation before delving into extensive empirical work. Acting as a catalyst for future research endeavors, a theoretical article guides researchers in designing empirical studies and significantly contributes to the growth and development of the field as a whole (Post et al., 2020).

#### *Literature review and analysis*

The study began with a thorough literature review to understand the current state of research on the relationship between sport career management and entrepreneurship. The literature review identified existing studies and highlighted a deficiency in the literature, emphasizing the limited exploration of the processes and capacities required for a successful sport career compared to well-studied entrepreneurial processes.

For analysis, the study adopted a comparative approach, analyzing and comparing the relationship between managing a sport career and conducting an entrepreneurial initiative. It placed particular emphasis on the capacity component of the sport management process, aligning with the established notion in entrepreneurship research that capacity is a crucial factor driving the entrepreneurial process. The article suggested a multifaceted approach, combining conceptual and comparative analyses with a focus on specific aspects of entrepreneurship relevant to athletes.

#### **3.2.3 Publication III: Mixed-methods approach**

The utilization of a mixed-methods approach in Publication III reflects the acknowledgment of the multidimensionality inherent in exploring complex phenomena such as the dynamics within professional football clubs. Coviello and Jones (2004) and Hoang and Antoncic (2003), among others, advocate for this method, which synthesizes the strengths of both qualitative and quantitative methodologies. The rationale behind this

approach lies in addressing the limitations of each method in isolation. Qualitative methodologies delve into subjective experiences, opinions, and values, while quantitative approaches offer structured and numerical data, allowing for statistical analysis. The sequential triangulation employed in this research integrates these diverse data collection instruments to attain a more comprehensive understanding. By blending these approaches, the research aims to enhance the robustness of its findings, identify key variables, and explore a deeper consensus among experts in the field of professional football.

#### *Data collection and analysis*

The data collection approach in Publication III involved both quantitative and qualitative stages. The quantitative stage incorporated a survey to evaluate entrepreneurial orientation (EO), cooperation, and financial performance metrics. In addition, the authors assessed sport performance using publicly available data.

The survey, employing a key informant approach (Kumar et al., 1993), was distributed via email to decision-makers from 222 professional football clubs across German-speaking countries during the 2017/18 season, yielding 22 fully completed questionnaires (Table 6). All items were evaluated using a Likert-type scale, ranging from 1 (“strongly disagree”) to 5 (“strongly agree”).

Table 6: Participants of Publication III as of May 2018

No.	Participants	Interview participant	League level	No. of employees*
<i>Germany</i>				
1	FC Schalke 04		1	>250
2	FSV Mainz 05		1	>250
3	SV Werder Bremen	x	1	50–250
4	<i>Anonymized</i>		1	50–250
5	Eintracht Braunschweig		2	>250
6	Fortuna Düsseldorf		2	50–250
7	1. FC Union Berlin		2	50–250
8	DSC Arminia Bielefeld		2	50–250
9	MSV Duisburg	x	2	50–250
10	Fortuna Köln		3	10–49
11	FC Wegberg-Beeck		4	10–49
12	FC Viktoria Berlin		4	<10
<i>Austria</i>				
13	SCR Altach	x	1	<10
14	FC Blau-Weiß Linz	x	2	10–49
15	KSV 1919		2	10–49
16	<i>Anonymized</i>		2	<10
17	Wiener Neustadt		2	<10
18	ASK BSC Bruck		3	10–49



<i>Switzerland</i>				
19	FC Basel 1893	x	1	>250
20	FC Luzern		1	50–250
21	<i>Anonymized</i>		1	10–49
22	FC Kickers Luzern		4	<10

\* = without players

Participants were assessed on EO using the Hughes and Morgan (2007) scale, which measured innovativeness, proactiveness, and risk-taking. Additionally, the survey included seven items to assess coopetition measures, including investment in cooperation partners (Jap & Ganesan, 2000), density of the cooperation network (Ostgaard & Birley, 1994), strategic alliances with competitors (Bengtsson et al., 2010), clear goal for cooperation, structure to manage coopetition (Bouncken & Fredrich, 2012), cooperation relations, and internal knowledge sharing from coopetition (Kale et al., 2002).

The aim was to compare EO and coopetition measures with club performance. To measure performance, a two-step approach was used. First, the survey included perceived financial indicators in comparison with their competition. These measures were growth of sales, growth of profit, growth of employees, and growth of the value of the professional team.

Second, sport performance was quantified through the estimation of expected points, derived from official betting odds. The probability ratios were derived from the conversion of betting odds, adjusted by subtracting the bookmakers' margins. Following this, the resulting probability ratios were multiplied by the expected number of points for the specific match outcome and then summed. Due to the unavailability of archival data on betting odds for two clubs, the sample size varied for financial (N = 22) and sport performance (N = 20) analyses.

$$p_e = \frac{p_w}{x_w} \times \left( \frac{1}{x_w} + \frac{1}{x_d} + \frac{1}{x_l} \right) + \frac{p_d}{x_d} \times \left( \frac{1}{x_w} + \frac{1}{x_d} + \frac{1}{x_l} \right)$$

where

$p_e$	=	estimated points
$p_{w,d}$	=	points depending on win or draw
$x_{w,d,l}$	=	betting odd for win, draw, or loss

Quantitative data analysis entailed Pearson correlations, evaluating the relationships between EO, coopetition, and both financial and sport performance measures.

The subsequent qualitative analysis involved semi-structured expert interviews, involving in-depth discussions with 5 out of the initial 22 participants. Moreover, two external football experts were included to diversify insights. The structured phone interviews were thematically analyzed, integrating qualitative findings with the preceding quantitative

results, ensuring a comprehensive understanding of the economic dynamics within professional football.

### 3.2.4 Publication IV: Logit model—A binary choice regression

Functioning as a binary choice regression technique, the logit model enables the prediction of probabilities related to the two potential outcomes of successful career transitions for professional football players within Publication IV. This methodology is particularly well-suited for studies adept at managing and forecasting dichotomous outcomes (Bel et al., 2018).

This study explores the career trajectories of professional football players across multiple years based on a comprehensive longitudinal dataset. This extensive dataset provides a nuanced understanding of the intricate factors influencing career transitions. The logit model's output includes coefficients that can be interpreted in terms of odds ratios, offering a clear understanding of how each explanatory variable impacts the likelihood of a specific outcome (Bel et al., 2018; De Palma et al., 2008). This interpretability aligns with the study's objective of identifying key factors in the career choices of the players.

The choice of the logit model aligns with its efficacy in handling binary outcomes—in this case, players returning to the labor market or opting for entrepreneurship. The model's probabilistic nature further enhances its utility by providing nuanced insights into the decision-making process, capturing the inherent uncertainty in these transitions (De Palma et al., 2008).

#### *Data collection and analysis*

For robustness and replicability, the study utilized the matched employer–employee dataset Quadros de Pessôal (QP). This dataset, collected annually by the Portuguese Ministry of Labor and Social Security, uniquely identified firms and workers, facilitating the tracking and merging of information over time (Baptista et al., 2020; Kallmuenzer et al., 2021). The longitudinal nature of QP, coupled with its comprehensiveness, allowed for the detailed examination of professional football players' career paths.

The dataset encompassed 35,001 observations between 1991 and 2017, focusing on 8,809 distinct individuals. To examine the likelihood of returning to the labor market or pursuing entrepreneurship, explanatory variables, such as additional jobs during athletic careers, level of education, and league ranking, were considered. The education level was categorized into four groups based on accomplished years at school, while league variables were classified into the first, second, and semiprofessional leagues.

The logit model was expressed mathematically to predict the probability of each outcome. The model employed a cumulative logistic function to ensure that probabilities always fell between 0 and 1 (Bel et al., 2018). Estimations were conducted for the parameters linked to the explanatory variables to determine their influence on the likelihood of a

positive outcome. Additionally, the study employed the average marginal effect method in Stata to calculate the marginal effects of the variables, providing insights into how changes in explanatory variables influenced the probability of positive outcomes while holding other factors constant (Andresen, 2018).

This approach not only ensured the reliability of the findings but also enabled the replication of the study by other researchers, fostering a culture of transparency and scientific advancement in the field of sport economics.

### 3.2.5 **Publication V: Bibliometric analysis and systematic literature review**

Publication V employed a dual-methodological framework, combining a systematic literature review and bibliometric analysis, to unveil conceptual subdomains and thematic evolution in the domains of innovation, creativity, and entrepreneurship in sport management. The systematic literature review, following PRISMA guidelines, identified high-quality articles from the Thomson Reuters Web of Science Core Collection™, focusing on specific keywords in article titles related to sport, innovation, creativity, and entrepreneurship (Moher et al., 2009).

Complementing the literature review, a robust bibliometric analysis was conducted. While the systematic approach of the literature review highlighted significant articles, the subsequent bibliometric analysis identified thematic evolutions and illustrated conceptual subdomains. The thematic evolution analysis utilized an automated co-word analysis facilitated by the bibliometrix R package, incorporating author keyword occurrence and interconnection analysis to unveil keyword prevalence and relationships.

Following the bibliometric analysis, the systematic literature review continued with distinct literature reviews in each subdomain identified. This methodological hybrid approach offered several advantages. First, it ensured the inclusion of only significant articles through the thorough PRISMA screening process. Second, it provided objective insights through bibliometrics, enabling a longitudinal approach by segmenting the dataset into specific timeframes. Third, it allowed for qualitative synthesis, deriving meaningful insights from the literature review (Kraus et al., 2022).

In essence, the systematic literature review and bibliometric analysis in Publication V offered a rigorous and replicable method for identifying and understanding the evolving themes in innovation, creativity, and entrepreneurship in sport management, contributing to the advancement of knowledge in the field.

#### *Data collection and analysis*

The systematic literature review process of Publication V, adhering to Kraus et al. (2022) recommendations, started with an advanced search in the Thomson Reuters Web of Science Core Collection, focusing on articles related to innovation, creativity, and

entrepreneurship in sport management. The rationale for choosing this database was grounded in its reputation for hosting high-impact, credible academic journals in the field.

The initial search identified 211 documents (November 8, 2022). Subsequently, in the screening process, journals not related to economics or sport management were excluded, resulting in the elimination of 30 journals and 61 articles, leaving 150 articles for further analysis. In the next step, the eligibility-checking procedure, articles that (1) were unrelated to sport management, (2) analyzed entrepreneurship, innovation, or creativity in students, and (3) did not focus on sport entrepreneurship, innovation, or creativity were excluded. This step yielded a final database of 78 documents, downloaded with plain text and metadata.

The analysis unfolded in two subsequent stages. A thematic evolution analysis, employing co-word network analysis, revealed main themes and their evolution over three subperiods (2000–2011, 2012–2020, and 2021–2022). Utilizing the bibliometrix R package, a longitudinal analysis assessed the frequency and interconnections of author keywords (Aria & Cuccurullo, 2017). Strategic diagrams, positioned in a two-dimensional cluster according to the density and centrality of the keywords, visually represented the analysis of thematic areas' conceptual evolution (Callon et al., 1991). The categorization of themes into transversal themes, basic themes, motor themes, declining themes or emerging themes, and niche themes provided a nuanced understanding of their significance and development within the research field (Cobo et al., 2011).

Finally, the analysis continues with the synthesis of the articles in their respective clusters within the identified subperiods. The articles within the subperiods were analyzed using a systematic literature review approach to develop an understanding of how research contributed to the development of main themes over time.

Table 4: Summary of the applied methods

	<b>Method</b>	<b>Data</b>	<b>Analysis</b>
<i>Publication I</i> Professional football clubs and empirical evidence from the COVID-19 crisis: Time for sport entrepreneurship?	Qualitative study, multiple-case study approach	10 semi-structured interviews with CEOs of European PFCs	Thematic analysis
<i>Publication II</i> Converting sporting capacity to entrepreneurial capacity: A process perspective	Theoretical article	n/a	Comparative approach, capacity-based process perspective

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<i>Publication III</i> Entrepreneurial orientation in sports entrepreneurship – A mixed methods analysis of professional soccer clubs in the German-speaking countries	Mixed-methods study, quantitative questionnaire, qualitative interviews	<i>Quantitative</i> 22 key informants from German PFCs, betting data <i>Qualitative</i> 7 semi-structured interviews (survey participants (5), external experts (2))	<i>Quantitative</i> Pearson correlation, expected points estimation <i>Qualitative</i> Thematic analysis
<i>Publication IV</i> Rethinking dual careers: Success factors for career transition of professional football players and the role of sport entrepreneurship	Quantitative study, binary choice regression (logit model)	35,001 observations of 8,809 Portuguese professional football players from 1991 to 2017	Binary choice regression (logit model)
<i>Publication V</i> Sport entrepreneurship: The role of innovation and creativity in sport management	Systematic literature review and bibliometric analysis	211 articles on entrepreneurship, innovation, and creativity in sport from 2000 to 2022	Thematic evolution (co-word analysis), literature review of main themes

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### 3.3 Methodological limitations and validity

While the chosen research methods offer a robust foundation for investigating sport entrepreneurial dynamics, it is essential to acknowledge certain limitations and considerations regarding the validity of the study.

#### *Publication I: Multiple-case study*

While multiple-case studies provide in-depth insights into specific contexts, it is crucial to recognize that the findings may not be generalizable. The emphasis on qualitative exploration within diverse football clubs offers depth but sacrifices broad applicability. Additionally, the subjective nature of interviews may introduce bias, and the limited number of cases may impact the study's external validity. However, the in-depth exploration of specific cases enhances transferability to similar contexts within the sport industry. In addition, efforts were made to ensure confirmability through transparent documentation of the research process and triangulation of data sources (Eisenhardt & Graebner, 2007).

#### *Publication II: Theoretical article*

The theoretical nature of Publication II inherently relied on existing literature, potentially introducing biases inherent in the selected sources. The proposed conceptual framework, while valuable for guiding future research, may lack empirical validation (Rivard, 2021). Theoretical perspectives were subject to peer review to enhance their validity. Moreover, a rigorous literature review and synthesis contributed to the validity of theoretical frameworks (Post et al., 2020).

#### *Publication III: Mixed-methods approach*

While the integration of qualitative and quantitative methods enhances the study's depth, it is essential to recognize the inherent challenges in synthesizing diverse data types. Achieving a seamless integration of findings and ensuring the compatibility of qualitative and quantitative results can be complex. Additionally, the generalizability of the survey findings may be influenced by the specific context of German-speaking football clubs. Through triangulation with objective betting and subjective interview data, the authors aimed to increase validity and provide an advanced understanding of the phenomena (Eisenhardt & Graebner, 2007). In addition, the authors put emphasis on a structural sequential design of the application of qualitative and quantitative methods to increase validity (Molina-Azorín et al., 2012).

#### *Publication IV: Logit model*

While the logit model is a powerful tool for predicting probabilities in binary outcomes, it relies on specific assumptions that should be carefully considered. The longitudinal dataset, while extensive, may have limitations in capturing all relevant factors influencing career transitions. Additionally, the model's predictive power may be influenced by

unobserved variables not included in the analysis. However, the logit model is based on a solid statistical foundation, utilizing a cumulative logistic function. The model's reliability and stability make it a robust choice for drawing meaningful inferences from the data (De Palma et al., 2008). Moreover, the extensive longitudinal dataset enhances the external validity of the findings.

*Publication V: Bibliometric analysis and systematic literature*

While the dual-methodological framework offers a comprehensive understanding of thematic evolution, there are inherent limitations in relying on the existing literature. The search criteria in the systematic literature review may unintentionally exclude relevant articles, impacting the completeness of the analysis. Additionally, relying on the Thomson Reuters Web of Science Core Collection may exclude relevant articles from other databases. To enhance the rigor and transparency of the systematic literature review selection process, the authors adhered to the PRISMA guidelines (Moher et al., 2009). This methodological framework ensured a systematic and thorough approach, minimizing the risk of overlooking valuable insights (Kraus et al., 2020). Complementing the literature review, bibliometric analysis introduced a quantitative dimension, providing an objective measure of thematic evolution. Parameters, such as minimum cluster frequency and weight index, were employed to fortify the robustness of cluster identification. Additionally, applying the Louvain clustering algorithm facilitated the detection of meaningful relationships between keywords, thereby enhancing the overall depth of the analysis (Blondel et al., 2008).

Ensuring the validity of this research involved transparency in addressing these limitations and recognizing the specific contexts and conditions under which the findings were applicable. Researchers and practitioners should interpret the results with a nuanced understanding of these limitations, considering the trade-offs made to balance depth and breadth in the exploration of this complex and dynamic field.

## 4 Results of publications

In this section, the results of the publications comprising the dissertation are presented. Within each sub-chapter, a brief introduction outlines the background and research objectives specific to the respective publications. The subsequent presentation of the results is followed by conclusive remarks highlighting the contributions of each study. An overview summarizing the key results is provided in Table 7, and the synthesized research design of the dissertation is presented in Figure 3 at the end of this section.

### 4.1 Publication I: Professional football clubs and empirical evidence from the COVID-19 crisis: Time for sport entrepreneurship?

#### *Background and research objectives*

Publication I addressed the influences of the COVID-19 pandemic on professional football clubs (PFCs) and their struggle to mitigate economic consequences. The study aimed to fill the gap in understanding how PFCs from Austria, Germany, Sweden, Switzerland, and the Netherlands have coped with the COVID-19 crisis. Considering the limited liquidity and susceptibility of football organizations to crises, this research explored crisis management strategies, with a focus on entrepreneurial strategies. Publication I proposed the concept of sport entrepreneurship as a strategic approach to addressing the challenges posed by the pandemic, emphasizing the need for innovative and proactive measures. The researchers also responded to the call for comprehensive research on the impact of COVID-19 on elite sport organizations (Parnell et al., 2020), contributing to the understanding of crisis and change management in the sport industry.

#### *Main results*

This study delved into the influences of the COVID-19 pandemic on professional football clubs (PFCs), emphasizing their varied responses to the crisis. The results underscore the central role of solidarity during the pandemic, shedding light on the vulnerability of PFCs resulting from their financial structures and limited crisis management strategies.

Financially, the study reveals that PFCs rely heavily on TV rights and match day revenues, constituting over 50% of their budgets. The decline in income due to canceled or postponed matches poses a significant challenge to their financial management. While some clubs with international competition revenues remain financially stable, others grapple with limited liquidity, resorting to measures like short-time work to reduce costs. The findings highlight a lack of proactive crisis management, with most clubs adopting a wait-and-see approach and only a few engaging in innovative strategies to counter the negative effects of crises.

Stakeholder management is another critical aspect, with sponsorship and hospitality income affected. Despite challenges, some clubs exhibit innovative approaches to



generating substitute revenues, such as virtual games or TV show tickets. Notably, cultural differences influence perceptions of football's societal role, with clubs emphasizing its importance as a societal model. Solidarity plays a pivotal role, with sponsors, service providers, league and associations, employees, competitors, government, media, fans, and PFCs showing mutual support through various initiatives.

Change management becomes a focal point as clubs anticipate a short-term market downturn, expecting a recovery in 2–3 years. The crisis prompts reflections on the football industry's values, emphasizing the potential for a more down-to-earth approach. However, interviewees expressed difficulty envisioning specific changes amid the ongoing pandemic impact. Overall, the study illuminates the multifaceted challenges facing PFCs and underscores the need for resilient financial structures and proactive crisis management strategies in professional football.

### *Contributions*

This article contributes by introducing the novel concept of sport entrepreneurship as a strategic approach for professional football clubs (PFCs) to navigate the challenges posed by the COVID-19 crisis. Building on existing research, the study argues that sport provides a natural setting for entrepreneurship, proposing sport entrepreneurship as a crucial management strategy for PFCs. While acknowledging the reactive nature of PFCs in crises, the findings reveal instances in which clubs adopt innovative strategies to mitigate income decline by introducing novel services or products. This study aims to investigate how international PFCs respond to the COVID-19 crisis, making it the first attempt to understand the reactions of elite football clubs to the COVID-19 pandemic. The contributions extend to crisis, change and strategic management in sport clubs, emphasizing the importance of managing stakeholder relations during times of crisis and shedding light on how external shocks stimulate innovation and change processes in PFCs.

## **4.2 Publication II: Converting sporting capacity to entrepreneurial capacity: A process perspective**

### *Background and research objectives*

Publication II focused on the interconnected processes of managing a personal sport career and engaging in entrepreneurial initiatives. While entrepreneurship research extensively examines the entrepreneurial process and capacity, the sport management literature lacks generic discussions on the processes and capacities crucial for a successful sport career. This study highlights the challenge of conducting a cross-disciplinary investigation due to an ontology mismatch. It underscores the need to systematically examine the relationship between the intersection of sport and entrepreneurship, considering the widespread trend of athletes venturing into entrepreneurial careers. By comparing and contrasting the literature on sport management and entrepreneurship, this research seeks to provide valuable insights and guidelines for practitioners in these fields.

The research objective is to initiate a comprehensive understanding of the similarities, differences, and capacities involved in managing both a professional sport career and an entrepreneurial venture.

#### *Main results*

Publication II delved into the comparison of entrepreneurial processes and sport career management, aiming to identify and understand the essential capacities involved in each. This study draws on the growing literature on entrepreneurial processes, emphasizing the importance of a process-oriented perspective in entrepreneurship research. It highlights Hindle's harmonized model of entrepreneurial process (MEP) as a key contribution, outlining the strategic, personal, and tactical domains involved in entrepreneurial activities.

In contrast, the study finds a significant gap in the sport management literature, particularly in the lack of comprehensive process models for building a successful athletic career. The study suggests that existing perspectives in the sport literature focus on traits and cognitive issues rather than on a systematic process. The study argues for the necessity of a multi-component approach that considers the processes and capacities essential for developing a sport career. The study underscores the centrality of entrepreneurial capacity in the strategic domain, drawing parallels between evaluating opportunities in entrepreneurship and managing a successful sport career. It proposes a tentative model of sport capacity, emphasizing the essential nature of effective execution. The theoretical model enriches the economic understanding of how athletes navigate entrepreneurial pursuits.

#### *Contributions*

The study highlights the clarity and progress in understanding entrepreneurial processes through models such as the harmonized model of entrepreneurial process (MEP). In addition, Publication II contributes by providing a theoretical model of sport capacity, and emphasizing its importance in managing a successful sport career. The study enriches the economic understanding of athletes' entrepreneurial pursuits, and by calling attention to this gap, it prompts further research and encourages the development of evidence-based models in sport management. Overall, the study contributes to the ongoing dialogue on the intersection of sport and entrepreneurship, urging researchers to explore and articulate the processes and capacities involved in both domains.

### **4.3 Publication III: Entrepreneurial orientation in sports entrepreneurship – A mixed methods analysis of professional soccer clubs in the German-speaking countries**

#### *Background and research objectives*

Publication III explored the intersection of sport and entrepreneurship, acknowledging the sport industry's substantial and expanding role in the global economy. The transformation of non-profit sport clubs into professional sport enterprises with structured management highlights the entrepreneurial characteristics crucial for sport management success. Despite this recognition, the actual impact of entrepreneurial activities in sport remains largely unclear. This study aims to quantitatively examine the theoretical evidence of sport entrepreneurship, specifically focusing on the connection between organizational performance and entrepreneurial orientation (EO) in professional football clubs within German-speaking countries. Moreover, the publication delves into the role of cooptation (cooperation with competitors) and its potential impact on EO and performance.

#### *Main results*

The findings reveal a positive significant correlation between EO and both financial and sport performance. Notably, the sub-dimension of innovativeness emerged as a key factor influencing both performance measures. However, no significant correlation was found for proactiveness. The research further suggested a positive relationship between risk-taking and sport performance but no significant correlation with financial performance.

In the realm of cooptation, the study uncovered that, while there is a significant relationship between cooptation and EO, cooptation itself does not significantly correlate with either sport or financial performance. Expert perspectives aligned with these findings, highlighting the importance of balancing risk-taking and the impact of financial resources on risk management in professional football.

The experts emphasized the holistic nature of EO, advocating for a balanced integration of its sub-dimensions – innovation, proactiveness, and risk-taking. However, some expressed constraints within their environment when initiating new and innovative activities. Experts highlighted the need to foster a positive environment conducive to innovation to overcome inertia in adopting new approaches.

Additionally, the study shed light on the intriguing connection of success in sport and financial resources, challenging the notion that financial investments directly translate to success on the field. The experts acknowledged the value of investments in the team but underscored the importance of competent staff as a critical moderator of success in the complex interplay between financial resources and athletic performance.

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### *Contributions*

Publication III provides nuanced insights into the dynamics of sport entrepreneurship and cooperation and their impact on the multifaceted performance of professional football clubs. This study reinforces the widely accepted notion that entrepreneurial orientation (EO) positively influences organizational performance, showcasing its relevance in the dynamic and competitive sport sector. Notably, the findings emphasize the crucial role of innovation within EO, highlighting it as a key driver for success in the sport industry.

While confirming the existing research on the positive relationship between financial investment in the team and athletic success, the study introduces nuanced perspectives on risk-taking and proactiveness, calling for further exploration in future research. The novel aspect of cooperation, explored as a potential mediator between EO and performance, adds a distinctive layer to the understanding of strategic collaborations in the sport industry. The study's findings suggest that cooperation, particularly inter-league cooperation, may serve as a valuable tool for smaller clubs to pool resources and navigate the challenges of the competitive sport market.

## **4.4 Publication IV: Rethinking dual careers: Success factors for career transition of professional football players and the role of sport entrepreneurship**

### *Background and research objectives*

Publication IV delved into the evolving landscape of elite sport and the transition of professional athletes from their sport career to a second career.

While recognized athletes may accumulate high levels of financial capital, most of them face financial challenges, emphasizing the importance of a second career after or alongside being an athlete (dual career). While the current literature focuses on the employability of an athlete, this publication seeks to bridge the gap in the understanding of second and dual careers by introducing entrepreneurship as an alternative. This publication addresses the entrepreneurial nature of athletic careers and their impact on post-retirement transitions. Drawing from a longitudinal data sample, the study aims to identify success factors for decision-making during career transitions. It advocates for a holistic approach to athletic career management, urging a reconsideration of the existing career transition and dual career frameworks.

The findings emphasize the importance of strategic timing for engaging in second careers, suggesting that working in the final year alongside an athletic career can enhance transition quality without compromising performance. Ultimately, the research contributes valuable insights to the ongoing discourse on second and dual careers, emphasizing the need for a comprehensive understanding that incorporates entrepreneurial dimensions and other forms of value creation.

### *Main results*

The results of Publication IV offer a comprehensive understanding of career transitions among professional football players. The descriptive analysis reveals that approximately 33% of players in the database in Portugal engaged in alternative professional activities post-retirement, with 8% venturing into entrepreneurship. The most common choices for reemployment were in social security, defense, public administration, retail trade, and various careers in the sport industry (coaching, administration, or management).

Key demographic findings indicate that football players generally have lower educational levels, with 69% not completing 12 years of schooling. On average, players retire at the age of 25.8 and opt for reemployment in a second career 3.2 years post-retirement. The study emphasizes the importance of timing for engaging in second careers, suggesting that working in the last year of a sport career critically improves career transition quality without compromising performance.

The logit model results for entrepreneurial careers highlight the significance of prior entrepreneurial experience, education level, total career earnings, retirement age, and career length. Notably, engaging in a dual career as an entrepreneur increases the probability of entrepreneurship by 73.8%, while higher education and total career earnings also positively influence this probability.

If athletes aim to pursue a career as an employee, engaging in a dual career during the last year of their sport career emerges as a significant factor, increasing the chance of an employment by 34.8%. Education level, total career earnings, retirement age, and playing in the second league during the last year of the sport career are other contributing factors. Additionally, being Portuguese significantly enhance the likelihood of becoming an employee in Portugal.

### *Contributions*

Publication IV enhances the comprehension of the second career transition and dual careers experienced by professional football players. The research serves a twofold purpose: first, expanding the existing knowledge by analyzing factors influencing the decision-making during career transitions of football players toward a second career; and second, introducing sport entrepreneurship as a vital component of the second and dual career concept.

The study emphasizes the need for athletes to consider a second career after retiring from sport, given the financial realities. It underscores the importance of proactive career preparation during the athlete's active years and highlights how experiences shape the decision between pursuing entrepreneurship or employment post-retirement. The findings stress the significance of a well-planned career transition of football players in a second or dual career and lay the groundwork for future studies, particularly in the evolving realm of sport entrepreneurship.

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## 4.5 Publication V: Sport entrepreneurship: The role of innovation and creativity in sport management

### *Background and research objectives*

Publication V addresses the evolving landscape of entrepreneurship, innovation, and creativity within the sport management field. Despite increasing scholarly interest, the publication highlights a fragmented and disorganized research landscape, particularly in sport entrepreneurship. Theoretical foundations underscore the importance of creativity as a precursor to innovation, emphasizing the need to nurture individual creativity in the sport industry. Previous research reviews are discussed, highlighting bibliometric studies and systematic reviews, while acknowledging the lack of a comprehensive analysis connecting entrepreneurship, innovation, and creativity in sport management. The study outlines the limitations of prior research and establishes the research goals, aiming to provide an integrated model for sport entrepreneurship, innovation, and creativity. The study employs a systematic literature review and bibliometric thematic evolution approach to analyze the field's evolution over time.

### *Main results*

Publication V provides a comprehensive analysis of the evolution of main themes in entrepreneurship, innovation, and creativity literature within sport management across three subperiods: 2000–2011, 2012–2020, and 2021–2022 (Figure 4). In the first period (2000–2011), the focus was primarily on entrepreneurship, representing the foundational stage of the field. The second subperiod (2012–2020) witnessed a diversification of themes, with increased attention on innovation, technology, entrepreneurial orientation, and social entrepreneurship. Notably, sport entrepreneurship emerged as a distinct and developing field during this time. Various studies explored the impact of entrepreneurial strategies on sport clubs, the relationship between innovation and economic performance, and the role of technology in enhancing fan engagement, especially during the COVID-19 pandemic. Entrepreneurial orientation became a well-established niche theme, while social entrepreneurship and sport for development gained prominence.

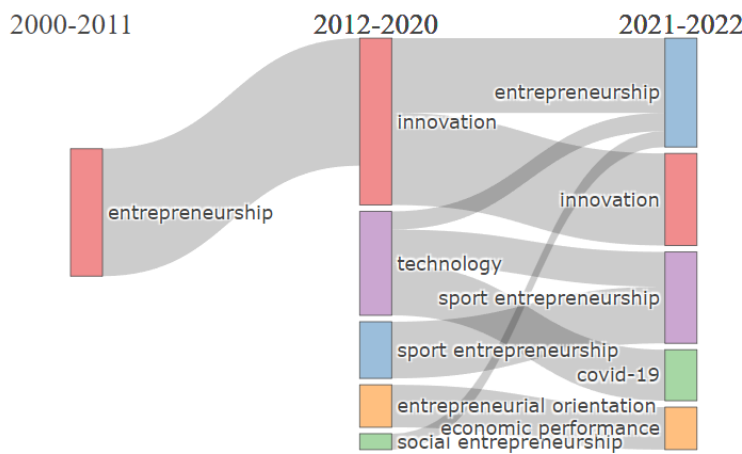


Figure 4: Evolution diagram of the main themes from Publication V

In the latest subperiod (2021–2022), the field further evolved, with sport entrepreneurship becoming a driving theme. The literature on entrepreneurship gained conceptual clarity, reflecting an increased acknowledgment of entrepreneurship as a crucial catalyst for economic impact, particularly in the context of the COVID-19 pandemic. Increasing attention has been directed toward exploring how athletes can contribute to entrepreneurship, highlighting the need for formal support for athletes venturing into entrepreneurial activities. The theme of fan engagement and its intersection with innovation emerged as a significant area of research, exploring how technology and complementary digital experiences impact fan experiences. Additionally, the COVID-19 pandemic and its management remained a central theme, emphasizing the significance of innovation in tackling crises in the sport sector.

### *Contributions*

Publication V contributes by conducting a thorough analysis of the evolution of entrepreneurship, innovation, and creativity in sport management over the past two decades. The study's longitudinal approach provides a comprehensive understanding of the scientific development in the field, offering insights into historical research streams. By presenting an integrated view of sport entrepreneurship, the study enhances the understanding of the subject from a holistic perspective. The study identifies key trends, developments, and gaps in the literature, offering valuable insights for scholars, policymakers, and practitioners in the sport management domain. The detailed thematic analysis provides a roadmap for future research directions, emphasizing the need for further exploration of specific subthemes and the deepening of existing thematic blocks for a more comprehensive understanding of sport entrepreneurship, innovation, and creativity.

Table 7: Overview of the publication results

<i>Publication I</i>	Professional football clubs and empirical evidence from the COVID-19 crisis: Time for sport entrepreneurship?
Background and objectives	<ul style="list-style-type: none"> <li>- Empirical investigation of the COVID-19 pandemic on professional football clubs (PFCs)</li> <li>- Explore entrepreneurial approaches in sport, especially during crises</li> </ul>
Main results	<ul style="list-style-type: none"> <li>- Sport is highly vulnerable to crises but lacks crisis management</li> <li>- Emphasizes the critical role of stakeholder management</li> <li>- Focuses on entrepreneurial behavior as clubs anticipate a short-term market downturn, prompting reflections on industry values and potential changes</li> </ul>
Contributions	<ul style="list-style-type: none"> <li>- Introduces the concept of sport entrepreneurship as a crucial management strategy for PFCs in navigating the challenges of the COVID-19 crisis</li> <li>- Sheds light on how external shocks stimulate innovation and change processes in professional sport</li> </ul>
<i>Publication II</i>	Converting sporting capacity to entrepreneurial capacity: A process perspective
Background and objectives	<ul style="list-style-type: none"> <li>- Insights into the broader concept of sport entrepreneurship</li> <li>- Explores the relationship between managing a sport career and conducting an entrepreneurial initiative</li> </ul>
Main results	<ul style="list-style-type: none"> <li>- Draws parallels between evaluating opportunities in entrepreneurship and managing a successful sport career</li> <li>- Suggests a processual perspective centered on human capacities</li> </ul>
Contributions	<ul style="list-style-type: none"> <li>- Provides a theoretical model of sport capacity, emphasizing its importance in managing a successful sport career</li> <li>- Enriches the economic understanding of athletes' entrepreneurial pursuits</li> </ul>
<i>Publication III</i>	Entrepreneurial orientation in sports entrepreneurship – A mixed methods analysis of professional soccer clubs in the German-speaking countries
Background and objectives	<ul style="list-style-type: none"> <li>- Exploring the relationship between entrepreneurial orientation (EO), cooperation, and financial and sport performance</li> <li>- Building on an understanding of the role of entrepreneurship in sport organizations</li> </ul>
Main results	<ul style="list-style-type: none"> <li>- Significant positive relationship found between EO and financial and sport performance</li> <li>- Innovativeness within EO correlated significantly with both financial and sport performance</li> <li>- Managers foster an environment conducive to innovation to overcome innovation inertia</li> </ul>
Contributions	<ul style="list-style-type: none"> <li>- Reinforces accepted theory that EO enhances organizational performance in the field of sport</li> <li>- Highlights innovation as a crucial element within EO for success in sport organizations</li> </ul>



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<i>Publication IV</i>	Rethinking dual careers: Success factors for career transition of professional football players and the role of sport entrepreneurship
Background and objectives	<ul style="list-style-type: none"> <li>- Dual careers offer benefits, but career transitions pose challenges</li> <li>- Current research gaps in understanding the entrepreneurial aspects of athletic careers</li> <li>- Connecting athletes' experiences to broader entrepreneurial themes</li> </ul>
Main results	<ul style="list-style-type: none"> <li>- 33% of investigated players pursue a second career, and 8% of retired players become entrepreneurs</li> <li>- Education, salary levels, and timing significantly influence career choices</li> </ul>
Contributions	<ul style="list-style-type: none"> <li>- Expands dual career literature by examining decision factors in football players' transitions</li> <li>- Introduces sport entrepreneurship as a crucial element of the dual career concept</li> </ul>
<i>Publication V</i>	Sport entrepreneurship: The role of innovation and creativity in sport management
Background and objectives	<ul style="list-style-type: none"> <li>- Sport industry's rapid growth prompts diverse studies, yet entrepreneurship in sport lacks recognition</li> <li>- Fragmented and disorganized sport entrepreneurship research necessitates conceptual delineations</li> </ul>
Main results	<ul style="list-style-type: none"> <li>- Evolution across three subperiods (2000–2011, 2012–2020, 2021–2022)</li> <li>- Emergence of sport entrepreneurship as a distinct field during 2012–2020, with increased attention to innovation</li> <li>- Sport entrepreneurship becomes a driving theme in 2021–2022, reflecting conceptual clarity and increased recognition</li> </ul>
Contributions	<ul style="list-style-type: none"> <li>- Comprehensive analysis of the evolution of entrepreneurship, innovation, and creativity in sport management</li> <li>- Identification of historical research streams, highlighting main findings, and revealing gaps in the literature</li> <li>- Foundations laid for future research, contributing to field development and emphasizing sport entrepreneurship's potential impact on sport management academia</li> </ul>

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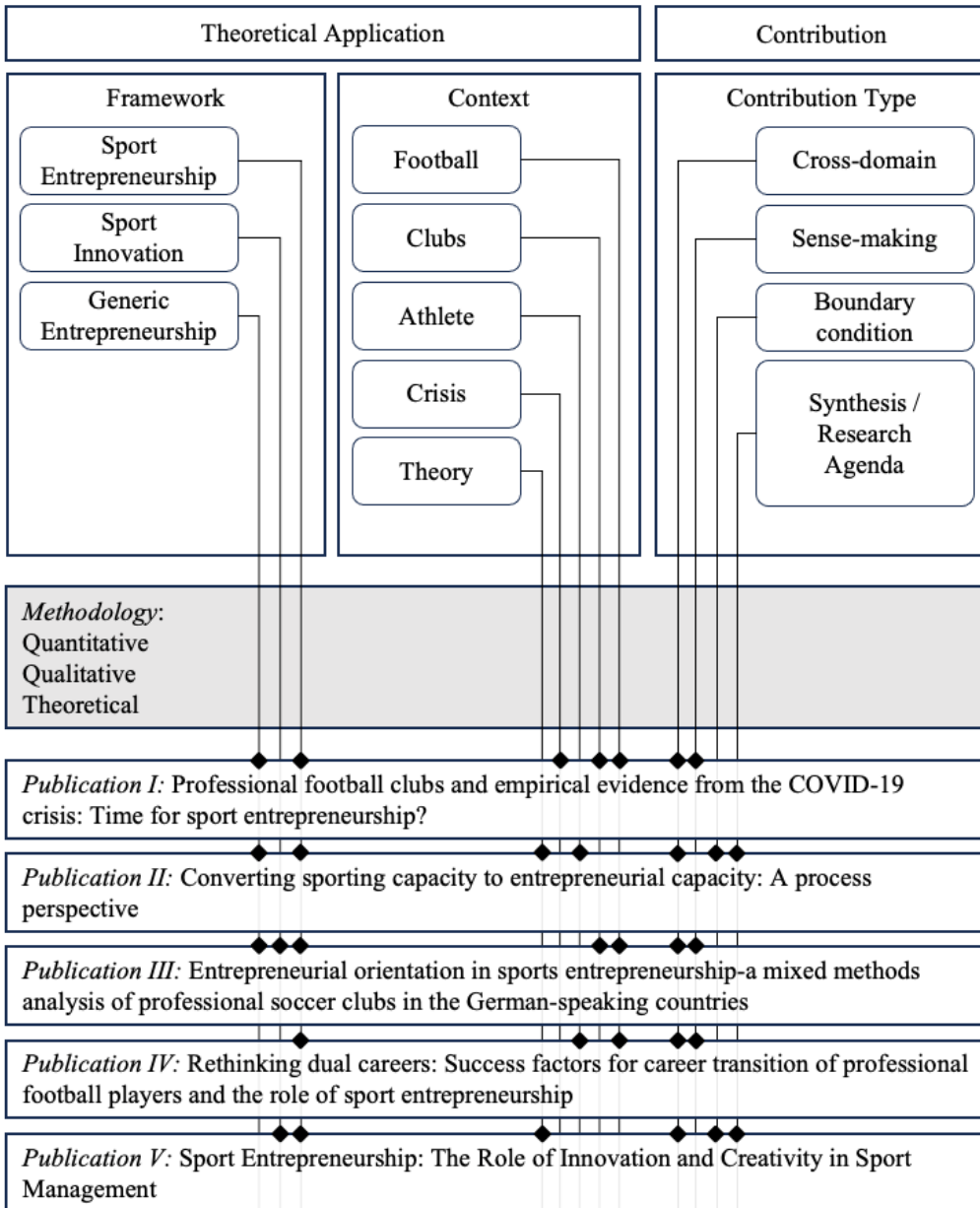


Figure 3: Synthesized research design of the dissertation



## 5 Conclusion

The subsequent section answers the research questions based on the publication results. The implications for science and practice are then discussed, along with the limitations of the dissertation and possibilities for future research.

### 5.1 Answering the research question

This doctoral dissertation aims to uncover the dynamics of sport entrepreneurship in the sport industry. This section specifically delves into the central research question: “*How is sport entrepreneurship employed by the sport industry to navigate challenges and capitalize on opportunities?*” To comprehensively address this complex field, a series of sub-questions were formulated, culminating in the development of five distinct publications within this dissertation. This section aims to examine the essential findings in each article, clarify their relevance to the sub-research questions, and evaluate their combined benefits in addressing the overall research inquiry. This section clarifies how the specific publications contribute to the overarching research question and advance the comprehensive understanding of sport entrepreneurship dynamics in the sport industry.

Publication I addressed the sub-research question “*How did international football clubs respond to COVID-19, and what sport entrepreneurial dynamics emerged from the crisis?*” The study lays the foundation by exploring how international football clubs responded to the unprecedented challenges posed by the COVID-19 pandemic. This exploration of crisis management strategies not only forms the basis for subsequent investigations but also serves as a catalyst for questioning the preparedness of professional football clubs (PFCs) in times of crisis. The economic implications of severe liquidity issues and the prioritization of sport success over profit outlined in this publication resonate as key considerations influencing the entrepreneurial dynamics within the sport industry. Emphasizing the crucial role of stakeholder relations, the study recommends selecting sponsors from crisis-resistant industries for invulnerably financial support, noting that clubs with sponsors from resilient sectors coped better during economic downturns. The research underscores the importance of stakeholder loyalty during crises, emphasizing the emotional bonds between clubs and sponsors. Contrary to assumptions, the study unveils a reactive, rather than proactive, approach among many PFCs to the crisis. While some clubs introduced innovative products or services, an overarching entrepreneurial mindset was not prevalent. This study raises questions about whether revenue reduction contributes to non-proactive behavior, potentially hindering the adoption of entrepreneurial strategies. Furthermore, it advocates for integrating sport entrepreneurship as a strategic approach to navigating the COVID-19 crisis, positioning it as a promising management strategy for PFCs during economic downturns.

Building upon this groundwork, Publication II extends the discourse by delving into the sub-research question “*What is the relationship between managing a sport career and conducting an entrepreneurial initiative?*” The research underscores the entrepreneurial

process's centrality and its three distinct domains: strategic, personal, and tactical. In the strategic domain, the study emphasizes the critical role of entrepreneurial capacity, which serves as a core factor in the evaluation of potential opportunities (Ucbasaran et al., 2008). This aligns with the transformation of vague athletic aspirations into precise agendas, akin to the creation of a business model in entrepreneurship (Morris et al., 2005). This study recognizes the necessity for athletes to possess personal sport capacity, commitment, and managerial skills for effective execution. This study proposes a tentative model of sport capacity, aiming to provide a process perspective on managing a successful sport career. The theoretical model proposed in this work enriches the economic understanding of how athletes can navigate entrepreneurial pursuits, reflecting a symbiotic relationship with the insights collected from crisis management strategies in Publication I. However, the study acknowledges the need for a more structured research, well-developed evidence, and cohesive theory building in this area.

Publication III addressed sub-research question 3 “*What is the relationship between entrepreneurial strategies and organizational performance in professional football clubs?*” By exploring the relationship between entrepreneurial strategies and performance, this article contributes to the understanding of sport entrepreneurial behavior in sport organizations. The study confirms a significant positive correlation between entrepreneurial orientation (EO) and financial as well as sport performance. Specifically, innovativeness within EO emerges as a key factor, correlating notably with enhanced financial and sport outcomes. The examination of risk-taking within entrepreneurial strategies reveals a positive correlation with sport performance but lacks a significant relationship with financial performance. This nuanced insight suggests that while risk-taking may influence on-field success, its impact on financial outcomes is less pronounced. Surprisingly, the study finds no direct correlation between financial and sport performance, challenging the common belief that player investments directly enhance athletic success (Szymanski & Smith, 2010). The opinion of experts and literature is that market value, if managed efficiently by a competent team, is a more appropriate measure of the correlation between investment and athletic performance (Frick & Simmons, 2008; Millar & Stevens, 2012; Tesone et al., 2004). Most experts report that they are convinced that innovation increases the success of a football club. However, the quantitative results show that not all clubs demonstrate high levels of innovation. The experts interviewed also reported that their environment inhibits them from launching new and innovative initiatives. In order to overcome this restriction, football managers try to establish an environment that is positive toward innovation and change. Although the quantitative analysis does not establish a direct correlation between cooperation and organizational performance, the data suggest that cooperation may act as a mediator in the relationship between EO and performance. Expert interviews highlight the positive effects of cooperation within the football sector, pointing toward the potential for enhanced league performance through collaboration. The exploration of EO as a strategic element contributes to a more comprehensive understanding of how entrepreneurial strategies impact the dynamics of professional football club management and performance.

Publication IV serves to link athletes' experiences with broader entrepreneurial themes, specifically addressing the sub-research question "*What influences the career transitions of professional football players, and what is the potential value of introducing sport entrepreneurship?*" The study underscores that career transition decisions are multifaceted. Notably, athletes with prior entrepreneurial experience are inclined toward entrepreneurship for their second career. Surprisingly, players with secondary education show a greater tendency toward entrepreneurship post-retirement. Financial stability, higher career salaries, and factors such as a delayed retirement age positively impact the likelihood of athletes becoming entrepreneurs. The study recommends strategic timing, suggesting that engaging in a dual career in the last year of an athlete's career enhances transition quality without compromising performance. Introducing sport entrepreneurship as a valuable aspect of the dual-career concept, the research suggests that athletes engaged in entrepreneurial activities during their careers are more likely to pursue entrepreneurship in their second careers. This emphasizes the potential value of fostering an entrepreneurial mindset, offering athletes additional skills and perspectives that are crucial for successful career transitions. The influence of prior entrepreneurial experience on a subsequent entrepreneurship career builds on the understanding of the conceptualization of sport entrepreneurial capacity introduced in Publication II.

Publication V delved into the dynamic evolution of research in sport entrepreneurship, tackling the sub-research question "*How has research evolved in sport entrepreneurship, and how can an integrated model guide future research?*" The analysis is informed by the collective insights of the preceding works and spans three key subperiods: 2000–2011, 2012–2020, and 2021–2022. The study reveals a notable increase in research output, particularly in the latest subperiod (2021–2022), underscoring the growing significance of sport entrepreneurship. The emergence of sport entrepreneurship as a driving theme is a key finding, with a focus on enhancing conceptual clarity within the entrepreneurship literature. This shift is attributed to the heightened recognition of entrepreneurship's pivotal role, especially in navigating crises, exemplified by the COVID-19 pandemic. Thematic shifts highlight the rise of entrepreneurial orientation as a well-established niche theme, closely intertwined with economic performance. However, challenges and overlooked themes emerge. Despite initial prominence, social entrepreneurship and sport for development have witnessed declining attention, attributed to definitional issues (Bjärsholm, 2017) and a shift toward commercial strategies in sport management (Gammelsæter, 2021). These shifts in research priorities, especially the rise of entrepreneurial orientation and the decline of social entrepreneurship, reflect an ongoing dialogue influenced by the increased commercialization of sport. The call for an integrated model to address conceptual ambiguity aligns with the economic methodology developed in Publications I to IV. The study advocates for an integrated model in sport entrepreneurship to emphasize a cohesive framework to guide the research discourse surrounding sport entrepreneurship and foster a coherent understanding of fragmented research. The lack of conceptual clarity, particularly regarding sport entrepreneurship, underscores the need for a focused framework to drive the field's development.

Collectively, these publications, along with their respective sub-research questions, lay the foundation for addressing the overarching research question of this doctoral dissertation: “*How is sport entrepreneurship employed by the sport industry to navigate challenges and capitalize on opportunities?*” Publications I and III contribute substantial evidence directly pertaining to the utilization of sport entrepreneurship within the sport industry, specifically within sport organizations. They illustrate how professional football clubs employ entrepreneurial strategies to overcome crises and enhance performance. From a theoretical perspective, these strategies are often intuitively applied, rather than being systematically fostered through a deliberate entrepreneurial process. Publication II emphasizes that individuals in the sport industry inherently possess the capacity to undertake entrepreneurial initiatives. This dissertation posits that managing sport and engaging in entrepreneurial initiatives are two intrinsically linked processes. It suggests that, to address challenges and exploit opportunities in the sport industry, managers can leverage their innate human resource-based capacity to formulate entrepreneurial responses. However, Publication I revealed that a majority of managers in the industry tend to react rather than proactively act, which is different from a typical entrepreneurial characteristic. Therefore, from a practical perspective, sport organizations or individuals utilize triggers such as crises or foster environments conducive to innovation to stimulate sport entrepreneurship. Players within the sport industry then gain a competitive advantage by leveraging these entrepreneurial strategies. Collectively, the publications provide antecedents facilitating sport entrepreneurial dynamics in the sport industry and the strategies applied, highlighting effective responses to emerging challenges or opportunities in the sport industry.

## **5.2 Theoretical implications**

### **5.2.1 Dynamics and effects of sport entrepreneurship**

This dissertation delves into the dynamics and effects of sport entrepreneurship within different contexts in the football industry, with the aim of generating implications to foster an overall understanding of sport entrepreneurial dynamics within the sport industry. An overview of sport entrepreneurship dynamics and their effects is presented at the end of this section (Figure 5).

#### *Sport entrepreneurship as a strategy*

The empirical findings of Publications I, III, and IV underscore current findings that sport entrepreneurship emerges as a promising strategic approach to tackle the multifaceted challenges of the sport industry (Jones et al., 2017; Pellegrini et al., 2020). Research was conducted into entrepreneurial activities within the football industry, spanning real-world scenarios like the COVID-19 crisis (Publication I), professional football club management (Publications I and III), and athlete career transitions (Publication IV). Across these diverse contexts, this dissertation identified significant levels of entrepreneurial dynamics. Although these contexts may initially seem distinct, the

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combined findings from these publications collectively emphasize the current literature that sport entrepreneurship exerts a noticeable impact on the sport industry (González-Serrano et al., 2020; Pellegrini et al., 2020).

Despite being underexplored in the sport industry, entrepreneurial strategies are pivotal for organizations striving to excel in the highly competitive field (Escamilla-Fajardo et al., 2022; 2021; Núñez-Pomar et al., 2016). The dissertation emphasizes that, in the dynamic realm of the sport industry, value creation and entrepreneurship are intricately interconnected. Whether in professional clubs or the management of an athlete's career, stakeholders in the sport industry consistently pursue value creation through a variety of strategies, with entrepreneurship emerging as a fundamental driver in this process. The COVID-19 pandemic has presented significant challenges for the sport industry (Crespo Celda et al., 2022; Escamilla-Fajardo, Núñez-Pomar, Calabuig, et al., 2020). As observed in other sports, entrepreneurial initiatives have come to the forefront during crises as a means of overcoming these obstacles and have made substantial contributions to improving financial, sport, and social situations (Crespo Celda et al., 2022). Publication I illustrates that entrepreneurial activities play a crucial role in helping clubs navigate through these challenges, providing a valuable tool set for adapting to and ensuring survival during crises. However, Publication I suggests that innovation in sport entrepreneurship is highly dependent on the proactivity of key decision-makers. Moreover, the research aligns with current evidence showing that the sport industry, especially professional football, operates in a highly competitive environment with tight budgets, making it susceptible to unexpected crises like injuries, relegation, or external shocks such as the COVID-19 pandemic (Manoli, 2016; Ratten & Ciletti, 2011; Szymanski & Weimar, 2019).

The unique characteristics of the sport industry, marked by unpredictability, fierce competition, and the pursuit of emotional engagement (Smith & Stewart, 2010), require the adoption of an entrepreneurial mindset to effectively navigate uncertainty. Recognizing this symbiotic relationship between entrepreneurship and value creation is paramount for achieving sustained success and resilience in the evolving sport landscape. Moreover, Publications I and III establish that entrepreneurial strategies have a positive impact on success, not only in specific contexts like a pandemic but also in the general management of football clubs. This expands the understanding of sport entrepreneurship beyond a specialized tool for distinct situations, portraying it as a universally valuable concept for navigating the complexities of the sport industry successfully. By examining entrepreneurial dynamics in a broader context, the dissertation positions sport entrepreneurship as a versatile and essential strategy, reinforcing previous research findings that highlight its significant positive effects across various scenarios in the sport industry. Publication III enriches the understanding of how entrepreneurial orientation—encompassing innovation, proactiveness, and risk-taking—contributes to sport and financial performance in professional sport and therefore forms a key foundation for future research within the sport industry. In addition, the results confirm recent empirical articles on the superior importance of innovation as a driver of performance (Escamilla-Fajardo et al., 2022; Radaelli et al., 2018).



*Entrepreneurial pathways for athletes*

Publications II and IV present a persuasive argument for considering entrepreneurship as a viable and promising pathway for athletes. The entrepreneurship pathway can provide athletes with valuable skills and opportunities for second career preparation, while also contributing to their personal development and potential for social change (Foley & O'Connor, 2013; Stambulova & Wylleman, 2019). By emphasizing the significance of entrepreneurship in the career transition process, this research offers important insights for practitioners and policymakers in the sport industry.

Moreover, the research findings of Publication IV underscore the multifaceted nature of an athlete's career transition, emphasizing the intricate interplay between education, entrepreneurial experience, and employment. The research suggests that these elements collectively shape the trajectory of athletes as they navigate the transition from sport to alternative career paths. In particular, the study highlights the importance of considering entrepreneurship as a strategic and viable option for athletes to pursue after or alongside their sport career. By acknowledging the symbiotic relationship between athletic and entrepreneurial pursuits, athletes can leverage their skills and experiences to create meaningful second or dual careers (Stambulova & Wylleman, 2019). This is especially evident when combined with the results of Publication II, which illustrates the interconnectedness of conducting an entrepreneurial initiative and managing a sport career as two vital processes. That is, the personal and social capital gained from managing a sport career provides a starting point for the attributes essential to successful entrepreneurship (Davidsson & Honig, 2003; Gielnik et al., 2018). This convergence of skill sets not only reinforces the viability of entrepreneurship as a second career but also highlights the potential for athletes to excel in entrepreneurial endeavors. These research findings support the idea that entrepreneurship can be a valuable and viable option for athletes to pursue alongside their sport careers, offering them skills and opportunities for second career preparation and personal development (Moustakas & Kalina, 2021).

*Entrepreneurial capacity and the implicit application of sport entrepreneurship*

The findings of Publications I and III indicate that entrepreneurial strategies within professional football clubs are often applied intuitively rather than through a systematic and deliberate entrepreneurial process. This challenges views that entrepreneurial endeavors are necessarily the result of deliberate planning and strategic decision-making (Ratten, 2010). The theoretical implication suggests that there may be a tacit dimension to entrepreneurial behavior within the sport industry, indicating a need for further exploration into the nature of intuitive entrepreneurial decision-making. This implication, combined with the results of Publication II, supports existing literature emphasizing that individuals in the sport industry inherently possess the capacity to undertake entrepreneurial initiatives (Baron-Thiene & Alfermann, 2015; Hemme et al., 2017). This theoretical insight challenges the notion that entrepreneurship is an external skill that needs to be imported into the sport context. Instead, it suggests that the sport industry

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itself provides a fertile ground for the emergence of entrepreneurial behavior, and efforts should be directed toward recognizing and harnessing this inherent capacity.

The dissertation suggests an unconsciousness within the sport industry regarding the concept of sport entrepreneurship. Despite a lack of explicit knowledge about the concept and its strategies, the findings of Publications I and III both present high levels of entrepreneurial behavior. This raises intriguing questions about the sources and mechanisms through which high levels of entrepreneurial behavior can be achieved without explicit managerial awareness. The implication is that there may be latent, experiential knowledge contributing to entrepreneurial behavior that is not consciously acknowledged by sport managers and athletes. The study proposes that sport managers, in addressing challenges and exploiting opportunities in the sport industry, leverage their innate human resource-based capacity to formulate entrepreneurial responses.

This perspective emphasizes the importance of personal experience and career management in developing entrepreneurial capacity (Parmentier & Fischer, 2012). The implication is that managing a sport career serves as a foundation for building entrepreneurial skills, and managers and athletes can draw on this reservoir of experience to respond effectively to dynamic challenges in the industry. This dissertation suggests that sport managers unconsciously transform their built entrepreneurial capacity into effective organizational entrepreneurship.

#### *Lacking proactivity and innovation inertia*

The findings presented in the dissertation shed light on the implications concerning the dynamics of innovation within the sport industry. The observation that a majority of managers in the field of football show reactive rather than proactive behavior challenges the conventional entrepreneurial characteristics often associated with successful business endeavors (Kraus et al., 2012). This issue may be caused by tradition-induced inhibition to innovate. Experts reported a feeling of inhibition toward innovation due to their environment. The inclination toward reactivity may be attributed to the deeply entrenched traditions and nostalgic values that permeate the sport landscape. This resistance to proactive change, particularly evident in traditional sport clubs with a strong emphasis on history and informality, has been substantiated by previous research (Thiel & Mayer, 2009; Wolfe et al., 2006).

The theoretical implication of this phenomenon lies in the intricate interplay between preserving the past and embracing innovation. Sport organizations, as upholders of tradition, grapple with the tension between maintaining historical roots and fostering an environment conducive to innovation. Næss and Tickell (2019) highlight this challenge as a catalyst for progress, acknowledging the need for sustained support to successfully innovate within such environments. This, in turn, sets the stage for an exploration of strategies to overcome the identified innovation inertia.

The dissertation argues that creating conducive factors toward innovation can serve as a proactive strategy to stimulate sport entrepreneurship and overcome potential innovation inertia. Aligning with the current research, this approach seeks to counteract the negative influence of the traditional sport environment on innovation. Organizations can drive innovation by fostering an environment that encourages and supports innovation (Meoli et al., 2020). An alternative conducive factor presented in the dissertation suggests that crises can serve as triggers for innovation within the sport industry. The heightened levels of innovation observed during crises, such as those experienced by football clubs, imply that the managerial need to cope with severe financial threads can act as a catalyst for organizational change. This implication suggests that crises may be opportune moments for sport organizations to initiate and implement innovative strategies, potentially leading to adaptive responses that enhance organizational resilience. The dissertation proposes that innovation in the football environment can be triggered by factors beyond those currently researched. It lays the foundation for further research to investigate the factors that support innovation inertia in sport.

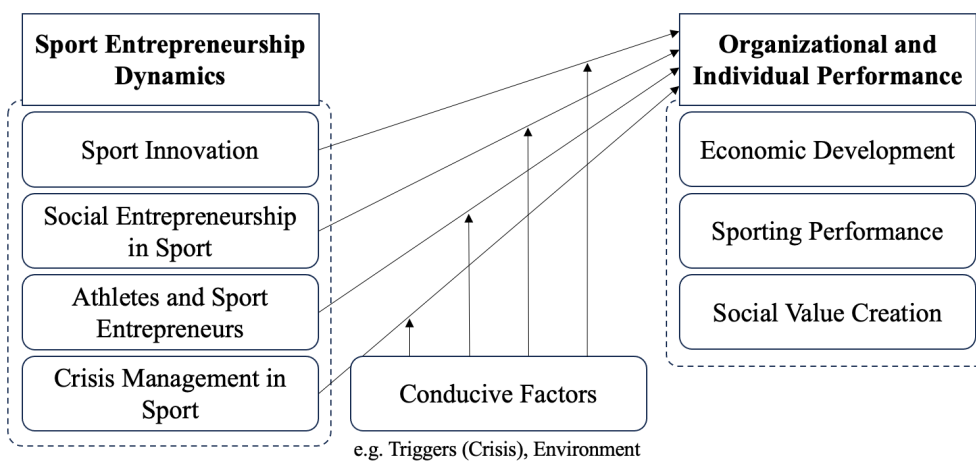


Figure 5: Overview of sport entrepreneurship dynamics and their effects

### 5.2.2 Contributions to sport entrepreneurship research

The conceptual advancements presented in this dissertation profit from the empirical findings across diverse contexts. Publications I, III, and IV are evidence-based contributions, revealing the antecedents, influencing factors, and outcomes of sport entrepreneurial dynamics. These empirical insights provide a robust foundation for conceptual work, facilitating a nuanced understanding of how sport entrepreneurship influences the industry. Publication V then proposes an integrated framework for sport entrepreneurship, drawing on the empirical evidence collected in these publications.

Each publication offers a unique context, from crisis management in international football clubs (Publication I) to the examination of entrepreneurial strategies in the organizational

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performance of professional football clubs (Publication III) and the influences on the career transitions of professional football players (Publication IV). By grounding the research in real-world scenarios, these publications offer tangible examples that researchers can leverage to refine and extend the conceptualization of theory in sport entrepreneurship (Eisenhardt & Graebner, 2007).

### *Toward an integrated perspective*

Sport entrepreneurship research has been characterized by fragmentation, hindering the field's systematic development (Bjärsholm, 2017; Pellegrini et al., 2020). The efforts to increase conceptual clarity introduced in this dissertation provide a structured approach, integrating various dimensions into a cohesive framework. This clarity may act as a catalyst for future progress in the scientific field of sport entrepreneurship (Sharma & Chrisman, 1999). The development of a cohesive model echoes the need for a unified understanding of sport entrepreneurship, enabling researchers to navigate its conceptual development with a shared foundation (Bjärsholm, 2017; Pellegrini et al., 2020). The sport industry exhibits complexity in value generation, encompassing aspects such as winning, economic gains, and social impact, across various settings like professional sport, community sport, and sport businesses (Garcia-del-Barrio & Szymanski, 2009; Smith & Stewart, 2010). By recognizing the central role of entrepreneurship, the industry can move beyond a predominant focus on sport innovation. In addition, understanding the inherent social dynamics within sport entrepreneurship is in line with the call for socially responsible and sustainable approaches in the field of sport management (Gammelsæter, 2021).

The concept of innovation in sport management literature has undergone a gradual evolution, gaining significant attention in 2010. Scholars and researchers have delved into understanding the intricacies of innovation and its implications for various entities within the sport industry, including organizations, leagues, teams, and marketers (Ferreira et al., 2020). While the literature on innovation in sport management was well-established, the concept of sport entrepreneurship began to gain traction as a complementary yet distinct dimension. The literature review in Publication V reveals a shift in focus that reflects a growing recognition of the significance of sport entrepreneurship within the industry. The groundwork for this transition was laid by the innovation literature, which highlighted the significance of innovation in sport and acted as a solid foundation for the later development of the concept of sport entrepreneurship. After 2015, sport entrepreneurship garnered increased scholarly attention, dominating the sport innovation literature (González-Serrano et al., 2020). On the one hand, this evolution demonstrates the comprehensive nature of research on sport entrepreneurship, while on the other hand, it highlights its conceptual superiority over innovation (Kraus et al., 2012).

Including innovation within sport entrepreneurship provides a more comprehensive and holistic understanding of how entrepreneurial principles operate within the sport industry. Innovation is a key component of entrepreneurial behavior (Kraus et al., 2012; Wiklund & Shepherd, 2005), and examining them together allows for a richer exploration of the

dynamics at play (Escamilla-Fajardo, Núñez-Pomar, Ratten, et al., 2020). Integrating innovation under the umbrella of sport entrepreneurship contributes to conceptual clarity. It helps in avoiding misconceptions and clearly delineates the role of innovation within the broader entrepreneurial framework, advancing theoretical understanding in the field. In particular, sport innovation research can benefit from integrating entrepreneurial principles. On the one hand, Publication V shows that significant sport innovation research has paid little attention to entrepreneurship. On the other hand, Publications I and III show that proactivity has proven to be an essential factor in the implementation of innovations. Publication V emphasizes the significance of creativity in the context of innovation. Until recently, this area was only loosely connected to sport management. To foster innovation and entrepreneurship, creativity must be leveraged (Fillis & Rentschler, 2010). Publication V presents an integrated model that offers a comprehensive view of these phenomena.

Moreover, social dynamics emerge as a distinctive feature within the sport entrepreneurial landscape (Bjärsholm, 2017). Empirical evidence further substantiates the interconnected nature of these dimensions, revealing the social issues embedded in sport entrepreneurial dynamics (Svensson & Hambrick, 2019). The explorative approach of Publications I and III revealed frequent social dynamics within the sport industry. Publication I showed that entrepreneurial initiatives in professional football clubs extend beyond mere revenue generation, encompassing social initiatives and innovative approaches to navigating the multifaceted nature of the sport industry. During the COVID-19 pandemic, clubs showcased a robust entrepreneurial spirit, engaging in activities that fostered social initiatives rooted in solidarity.

Sport organizations engage in social impact activities, such as creating value for communities through sport for development (Bjärsholm, 2017; Hoeber & Hoeber, 2012). The research underscores the unique role of sport entrepreneurship in generating social impact and promoting sustainability. Publication V introduces the concept of social value generation as a distinct dimension of sport entrepreneurship, contributing to the characterizing features of the field. The proposed model of integrated sport entrepreneurship (Figure 6) acts as a conceptual guide, aligning sport entrepreneurship with broader themes of innovation, creativity, and social aspects. This integrated approach not only advances the theoretical understanding of sport entrepreneurship but also lays the groundwork for comprehensive and interdisciplinary research endeavors. Publication V underscores the adaptability and versatility of entrepreneurial dynamics in addressing the diverse facets of the sport business landscape. While generic entrepreneurship is generally viewed through a narrow economic lens (Kraus et al., 2012; Wiklund & Shepherd, 2005), this research broadens the perspective, demonstrating the complex nature of the distinct field of sport entrepreneurship.

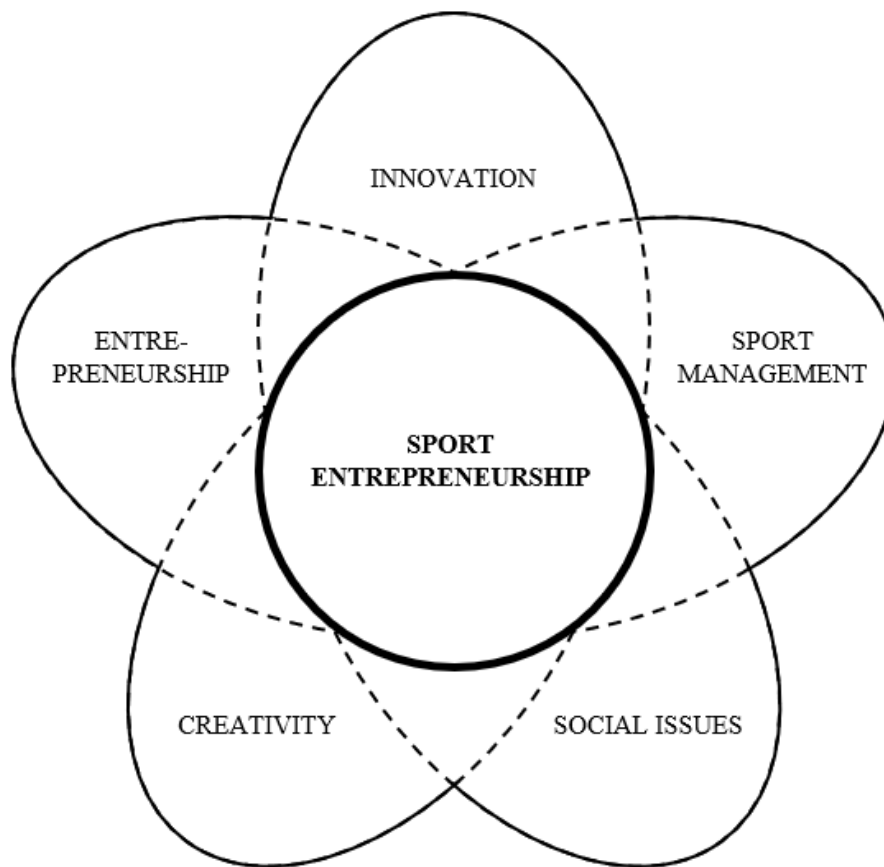


Figure 6: Integrated model of sport entrepreneurship presented in Publication V

### *Sport entrepreneurship beyond football*

This dissertation systematically collected empirical evidence concerning sport entrepreneurial dynamics within the professional sport industry, specifically focusing on professional football clubs and athletes. The professional football club landscape, situated within the broader sport industry, is a dynamic and unique environment with profound economic and entertainment dimensions (Devine et al., 2010; Escamilla-Fajardo, Núñez-Pomar, Ratten, et al., 2020). This unique environment makes entrepreneurship research even more interesting, which is underscored by the findings, revealing diverse and multifaceted dynamics of sport entrepreneurship within football cases and data.

In the realm of sport management, the football industry has been extensively studied. Acknowledging football's ability to generate substantial revenue, research highlights its intrinsic unpredictability and the dynamic nature of match outcomes as pivotal factors

influencing fan engagement and consumer experience (Smith & Stewart, 2010; Szymanski & Kuypers, 1999; Uhrich & Benkenstein, 2010). Given these characteristics, the findings of this study align with existing research on football. Nevertheless, the implications of this study extend beyond football to other sectors within the sport industry. While each type of sport, including football, possesses its unique aspects, certain features are shared across various sports within the industry (Smith & Stewart, 2010).

This dissertation on sport entrepreneurship extends the theoretical implications beyond the sport of football to encompass the sport industry as a whole. The research findings and insights provide a foundational understanding of how entrepreneurship dynamics occur and their implications across different sport domains. Publication V highlights the integration of entrepreneurship principles within the sport industry, indicating a shift in sport management theory that extends beyond a single sport. The sport industry, which spans various sport and athletic disciplines, can benefit from recognizing and incorporating entrepreneurial strategies (Ball, 2005). This implies that sport organizations, regardless of the specific sport involved, could enhance their adaptability and growth by incorporating entrepreneurial principles into their management and operational approaches. In addition, the dynamic influence of sport entrepreneurship on both sport and business domains offers theoretical insights applicable to organizations across different sports (Escamilla-Fajardo et al., 2022; Pellegrini et al., 2020). The adaptability and growth facilitated by entrepreneurial strategies examined in this dissertation are not confined to football clubs, indicating broader theoretical applicability in sport management. This has implications for strategic decision-making and long-term sustainability across the sport industry.

Exploring how high-level athletes leverage social capital for entrepreneurial pursuits in Publication II contributes theoretical insights to the broader sport industry. Athletes in various sport can draw upon social capital to explore entrepreneurial opportunities, indicating a common thread in athlete career development (Stambulova & Wylleman, 2019). This observation indicates a shared pattern in athlete career development, reaching across different disciplines. It underscores the universality of entrepreneurial capacity inherent in managing an athlete's career (Baron-Thiene & Alfermann, 2015; Hemme et al., 2017). The identification of pivotal success factors in athlete career transitions, with an emphasis on the value of sport entrepreneurship, offers theoretical insights that can be extrapolated to athletes beyond football. Athletes facing career transitions can benefit from understanding and embracing an entrepreneurial mindset. This implies that the theoretical underpinnings of successful career transitions extend to a spectrum of athletic disciplines, providing valuable guidance for athletes navigating career changes.

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## 5.3 Practical implications

### 5.3.1 Sport entrepreneurship as a strategy in practice

Growing conceptual clarity around sport entrepreneurship, including sub-dimensions like innovation and social impact, will bring cohesion to the field, impacting both research and practice. Despite its current neglect, these studies emphasize how sport entrepreneurship can effectively contribute to the success of sport organizations. The entrepreneurial mindset has been shown to yield economic efficiencies in sport organizations (González-Serrano et al., 2020; Pellegrini et al., 2020). As research clarity expands, sport entrepreneurship has gained prominence as a strategic framework. This prominence is expected to contribute to the growing influence of sport entrepreneurship as a strategy in practice.

Publication I highlights sport entrepreneurship as a strategy during the COVID-19 crisis, urging football organizations to adopt robust crisis management plans with entrepreneurial approaches. Organizations exhibiting an entrepreneurial profile have demonstrated the ability to outperform during recessions and subsequent crises (Devece et al., 2016). Clubs can benefit by proactively assessing financial structures, exploring innovative revenue streams, fostering stakeholder relationships, and building crisis management structures. This proactive approach builds resiliency and reduces the impact of a crisis on the financial health and overall sustainability of a sport organization.

Furthermore, the importance of integrating entrepreneurial strategies within sport organizations is underscored. Despite the primary mission of winning, sport organizations increasingly adopt entrepreneurship for economic and social sustainability (Pellegrini et al., 2020). Sport management professionals can strategically incorporate entrepreneurial principles, fostering a mindset of innovation, proactiveness, and risk-taking. This integration enhances adaptability and resilience, fostering long-term sustainability and growth across various sport entities.

### 5.3.2 Educational implications

This dissertation advocates a transformative shift in sport management education by highlighting the crucial role of sport entrepreneurship. Miragaia and Soares (2017) argue for the incorporation of self-employment skills and an entrepreneurial mindset in sport management programs, aligning with the proven benefits of entrepreneurial competencies on self-efficacy and positive attitudes.

The diverse sport entrepreneurial dynamics revealed in this study provide a compelling case for the integration of entrepreneurship into sport management curricula. Recognizing its impact on the sport industry, educational programs must consider this facet to prepare future professionals adequately.



While acknowledging parallels with generic business entrepreneurship, this dissertation emphasizes the need for specialized educational programs to navigate the unique challenges of sport entrepreneurship. Conceptual clarity is crucial, differentiating between generic entrepreneurship and sport entrepreneurship to ensure targeted and relevant learning experiences. This precision equips students to excel at the dynamic intersection of sport and entrepreneurship, fostering a generation of professionals ready to drive complex performance in the sport industry.

### **5.3.3 Athletic career management**

This dissertation underscores the pivotal role of social capital in fostering entrepreneurial behavior among athletes transitioning to entrepreneurship (Davidsson & Honig, 2003). In the context of high-level football athletes, the findings emphasize how athletes, their managers, and sport organizations can develop comprehensive athlete career management strategies. Publication IV delved into factors influencing athletes' path to entrepreneurship, highlighting the benefits of engaging in a dual career in the last year of their sport journey. This finding serves as a practical guideline for sport industry practitioners seeking entrepreneurial careers.

Integrating entrepreneurship into athlete development equips players with essential skills for personal growth and seamless career transitions (Vilanova & Puig, 2016). Athlete development initiatives can include exposure to business concepts, financial literacy, and hands-on entrepreneurial opportunities. This proactive approach not only empowers athletes during their sport careers but also prepares them for diverse entrepreneurial pursuits post-retirement.

The identified success factors in career transitions, particularly emphasizing the value of sport entrepreneurship, have significant implications for athlete career transition programs. This insight is not confined to football but extends to sport organizations across disciplines. Institutions supporting athletes can design programs that facilitate the development of entrepreneurial skills and provide guidance for athletes to explore entrepreneurship during and after their athletic careers. This proactive approach ensures not only financial stability but also personal fulfillment through entrepreneurial pursuits, contributing to smoother and more holistic career transitions for athletes.

### **5.3.4 Policy implications**

The overall findings of this dissertation have significant implications for policymakers seeking to strengthen the resilience of the sport industry, foster innovation, and support the holistic development of athletes.

Policymakers can play a pivotal role in enhancing the crisis resilience of sport organizations. By incentivizing the development of plans that integrate entrepreneurial strategies, such as diversifying revenue streams and fostering stakeholder relationships, governments can fortify clubs and leagues against unforeseen challenges. Financial

support mechanisms, particularly those targeted at clubs adopting innovative approaches during crises, can further encourage proactive entrepreneurship in navigating turbulent times.

In addition, policymakers can create an environment conducive to organizational innovation within sport entities. This may involve providing incentives, grants, or tax benefits for clubs that demonstrate a commitment to entrepreneurial orientation, experimentation with novel technologies, and collaborative initiatives with competitors. Fostering an entrepreneurial culture not only enhances the national and international competitiveness of sport organizations but also positions the sport industry as a driver of economic growth and technological advancement.

## 5.4 Limitations

This dissertation has some limitations. The empirical investigations presented in Publications I and III leverage qualitative research methodologies, particularly multiple-case studies and expert interviews. One overarching constraint in empirical research is the sampling methodology. In this dissertation, the sample size of professional football clubs from European countries, as exemplified in Publications I and III, restricts the generalizability of the findings due to its limited scope. The confined investigation of a small population impedes the derivation of definitive conclusions. To address this limitation, future research could employ quantitative methodologies, as demonstrated in Publication III, to provide a more comprehensive overview.

Publication I focused on football clubs in European countries affected by the COVID-19 pandemic. The selective focus on a subset of clubs is limiting insights into how other clubs perceived the pandemic and identified potential opportunities. While efforts were made to mitigate bias in qualitative research by employing multiple authors for data coding, it is crucial to recognize the imperative need for quantitative research support.

The integration of quantitative methods in Publications III and IV introduces additional considerations. In Publication III, quantitative data rely on surveys and self-perceived indicators of financial performance. Despite the potential for biases inherent in self-perception (Kraus et al., 2012), established research suggests its validity in entrepreneurial orientation measurements (Rauch et al., 2009). However, the reliance on betting odds for sport data introduces a risk of influence by bookmakers' misconceptions, mitigated by the use of average betting odds. In Publication IV, the use of a longitudinal employer–employee dataset of the Portuguese state introduces limitations, particularly concerning football players who relocate to other countries or opt for entrepreneurship while founding their companies outside of Portugal. In addition, the dataset ends in 2017, potentially limiting its explanatory power and generalizability.

Publication II, a theoretical study providing theoretical insights, faces limitations due to the absence of empirical evidence. In addition, current constructs such as “risk,” “commitment,” and “networks” lack a structured foundation and impede a coherent

process perspective. The proposed sport capacity model, while illustrative, lacks systematic investigation and evidence, underscoring the need for more research to establish a robust process model.

To provide a comprehensive perspective on sport entrepreneurship dynamics, Publication V utilized a bibliometric analysis combined with a systematic literature review. However, the bibliometric analysis is limited by the specific database used, and its results depend on that choice (Mongeon & Paul-Hus, 2016). Furthermore, reliance on a literature review introduces limitations related to the restricted set of articles analyzed, excluding those published outside the study period or lacking full access. The search string “sport entrepreneurship, innovation, and creativity” itself may influence results, and alternative strings or search approaches could yield different outcomes (Terán-Yépez et al., 2020).

These limitations collectively underscore the necessity of continued research efforts. While the initial findings indicate positive effects on the dynamics of sport entrepreneurship, a comprehensive, long-term investigation has yet to be conducted, emphasizing the need for future research in this domain.

## 5.5 Research avenues

The exploration of sport entrepreneurship has opened avenues for future research that can deepen the understanding of the field and address emerging questions. These are explored in this section.

While theoretical contributions have laid a foundation for understanding sport entrepreneurship, the field would benefit significantly from more empirical work. Empirical studies serve as a knowledge base, revealing the real-life dynamics and influences of sport entrepreneurship. The insights gained from empirical research become crucial for advancing theoretical frameworks and enhancing the conceptual clarity of the field. Publication IV, exemplifying the applicability of longitudinal studies, underscores the importance of tracking the evolution of sport entrepreneurship over time. Utilizing longitudinal studies in the field of sport entrepreneurship offers valuable insights into the development, adaptation, and impact of entrepreneurial strategies and innovations on the trajectory of the sport industry. This approach not only enhances our understanding of the dynamics within the field but also serves as a promising methodology for upcoming research endeavors. Future research should prioritize the production of high-quality, evidence-based articles, as these play a crucial role in efficiently guiding theoretical development (Eisenhardt & Graebner, 2007).

Conducting comparative analyses of sport entrepreneurship dynamics across different sports offers an avenue for identifying commonalities, differences, and factors influencing entrepreneurial behavior. Recognizing sport-specific nuances can contribute to tailoring strategies for various sport domains. Similarly, investigating sport entrepreneurship dynamics in diverse global contexts can provide a comprehensive view of how cultural, economic, and regulatory differences shape entrepreneurial initiatives in

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sport. The role of fans as contributors to sport entrepreneurship, the dynamics within virtual sport and esports, and the influence of governance structures on sport entrepreneurship are areas worthy of in-depth exploration. This dissertation also proposes the exploration of social responsibility and sustainability within sport entrepreneurship as a potential future research avenue, aligning with current calls in sport management research (Gammelsæter, 2021). Future research should delve into how sport organizations contribute to social and environmental causes while maintaining performance and financial viability. Additionally, developing and testing integrated models that encompass various dimensions of sport entrepreneurship, including components such as innovation, social impact, and performance outcomes, can offer a comprehensive framework for understanding the multifaceted nature of the field.

This dissertation, revealed through expert interviews, identifies inhibitions among football managers related to fostering innovation and implementing change management. This finding aligns with existing research on innovation inertia in the sport industry, which highlights the highly traditional environment of the football industry as a contributing factor to inertia in innovative initiatives (Thiel & Mayer, 2009; Wolfe et al., 2006). Future research should focus on examining the factors contributing to innovation inertia within football clubs and explore managerial approaches to tackle it. Understanding these aspects is crucial, as the findings of this dissertation indicate that clubs effectively overcoming innovation inertia are better positioned for development and growth through the implementation of innovative and entrepreneurial strategies.

The contribution of individual entrepreneurs to organizational entrepreneurship in the sport industry remains a relatively underexplored area. Future research may delve into the impact and antecedents of individual entrepreneurship in sport organizations, shedding light on how it contributes to the overall entrepreneurial behavior within these organizations. Exploring the role of women in sport entrepreneurship, both as athletes and managers, presents a promising avenue for research (Parris et al., 2014). This involves an investigation into the unique challenges and opportunities faced by female athletes and leaders, as well as an assessment of how gender dynamics influence entrepreneurial behavior in the sport industry. Moreover, examining the effectiveness of educational programs and initiatives aimed at developing entrepreneurial skills within the sport industry is a promising avenue for future research (González-Serrano et al., 2021). Investigating how entrepreneurship education influences the mindset and practices of athletes, managers, and sport professionals can contribute to the cultivation of an entrepreneurial ethos within the sport ecosystem.

These research avenues collectively contribute to the continued development and refinement of the field of sport entrepreneurship, offering valuable insights for academics, practitioners, and policymakers involved in the sport industry.



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## **Publication I**

Hammerschmidt, J., Durst, S., Kraus, S., & Puumalainen, K.  
**Professional football clubs and empirical evidence from the COVID-19 crisis:  
Time for sport entrepreneurship?**

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## Professional football clubs and empirical evidence from the COVID-19 crisis: Time for sport entrepreneurship?

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## ABSTRACT

The coronavirus disease (COVID-19) has spread worldwide in a short period and has developed into one of the biggest public health issues of the last decade. The actions initiated by governments to minimize person-to-person contact have also severely affected professional football clubs (PFCs) in the season 2019/20. Given the role of football in Europe, football clubs gained massive public and political attention during the COVID-19 crisis. Based on an exploratory multiple case study approach involving PFCs from five European football leagues, this study investigates the responses of these clubs to the COVID-19 pandemic. The findings show the relevance of solidarity with certain stakeholders during the pandemic, but also reveal the fragility of PFCs due to their financial structure and underdeveloped managerial and entrepreneurial strategies to cope with the crisis. This study contributes theoretically and empirically to the literature on the entrepreneurial behavior and crisis management of elite sport organizations and illustrates a holistic map of a dense, high solidary stakeholder network.

## 1. Introduction

The new coronavirus disease (COVID-19) continues to be a threat to humanity due to its continuous spread. The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) originated in wild animals (Singhal, 2020) has caused an alarming global health crisis and since its transmission to humans. COVID-19 has already taken millions of lives (WHO, 2020), and hence challenged many governments across the globe to take actions to reduce the spread of the virus. The most widespread governmental measure is social distancing, a way to keep person-person distance to limit the spread of the virus (Sharma, Singh, Sharma, Jones, Kraus & Dwivedi, 2020). In many regions, social distancing measures have similarities to quarantine, and therefore have a dramatic impact on people's everyday lives (Clark, Davila, Regis & Kraus, 2020). Most of the European countries, for example, have closed their schools, universities, and sport facilities; some countries even had a complete lockdown situation and people must stay at home, and nearly every government prohibited public events – including all kinds of sport matches (Breier et al., 2021).

In this context, it has also been seen that all types of organizations have been suffering from the pandemic, including professional sport companies such as football (soccer) companies. As regards the latter, football companies, rather than sport clubs, have a significant impact on the economy of many countries. Presently, football is the kind of sports with the greatest participation, impact, and income worldwide which influences not only the field of sports but also the social area, economics, and even cultural sectors (Escamilla-Fajardo et al., 2020).

The effects of COVID-19 have led to a collapse of revenues and elite football clubs are struggling to contain the economic impact of the COVID-19 pandemic. Additionally, the football industry is more cautious than other industries in its view of potential COVID-19 recovery scenarios; as the football sector is not sustainable without the presence of the fans. Knock-on effects of the pandemic have hit football especially hard and clubs are rather downbeat when considering their prospects over the next season. Public health interventions, like social distancing measures, are effective but do not prevent virus reoccurrences (Sharma et al., 2020). Even though governmental economic interventions have shown to be partially effective, they will not lead to a

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recovery to pre-crisis levels.

Giving the specific nature of professional football organizations, we see a need for more rigorous research aimed at showing how this category of elite sport clubs is coping with COVID-19. By doing so, we are responding to Parnell's (2020) recent call for research on the impact of COVID-19 in the context of elite sport from different perspectives and types of organizations. Recent research has also attempted to analyze and forecast the effects of the COVID-19 crisis on the economy in different contexts (Baldwin, 2020; Kraus et al., 2020; McKibbin & Fernando, 2020) – by focusing on sport organizations, we further contribute to this debate.

More specifically, this study aims to develop an initial understanding of crisis management in professional football clubs (PFCs) from five different European countries (Austria, Germany, Sweden, Switzerland, and the Netherlands) by analyzing how they perceived and responded to COVID-19 in the 2019/20 season. PFCs are rather match win than profit maximizers, and they generally calculate only low profits (García-del-Barrio & Szymanski, 2009). In addition, the football sector is highly susceptible to crises, which then promptly threaten their existence due to the club's limited liquidity (Manoli, 2016; Szymanski & Weimar, 2019). However, according to Devece et al. (2016), entrepreneurial organizations in this sector have the potential to overperform during recessions. Innovativeness and proactiveness – two sub-dimensions of entrepreneurial orientation (Lumpkin & Dess, 1996) – in particular, can enhance organizational performance in times of crisis (Mendoza-Ramírez et al., 2016; Petzold et al., 2019). Following other researchers (e.g. Hemme et al., 2017; Jones et al., 2017), we consider sport as a natural setting for entrepreneurship to occur, and thus propose to add the currently emerging research topic *sport entrepreneurship* (Hammerschmidt et al., 2020; Huertas González-Serrano et al., 2020) as a promising strategic approach to cope with the COVID-19 crisis. Given the situation that sport entrepreneurship is still a novel area of research, there is also a need for international studies from more than one country or region. By having involved PFCs from five different countries the present study contributes to the research field's further development too.

Against this background, the following study seeks to investigate how and by what means international PFCs are responding to the COVID-19 crisis. To our knowledge, this is the first attempt to foster our understanding of how professional (i.e. elite) football clubs have reacted and adapted to the COVID-19 pandemic. The study contributes to strategic, crisis and change management of sport organizations during the COVID-19 crisis and proposes sport entrepreneurship particularly in times of a crisis for short-term adaption and long-term success. The study further contributes to sport organization research and stresses, even more, the important role of stakeholder management in turbulent times. Finally, the study contributes to sport entrepreneurship research by providing insights into how unexpected external shocks trigger PFCs innovation and change processes.

### 1.1. The COVID-19 crisis during the football season 2019/20

On the 31 December 2019, China informed the WHO about the outbreak of a new coronavirus, and on 1 January 2020, the Huanan Seafood Wholesale Market was closed (Singhal, 2020). Since then, the COVID-19 has spread rapidly, with an ongoing number of confirmed cases in multiple countries. The development of COVID-19 had a powerful and unprecedented impact on the stock markets too, which consequently crashed (Baker et al., 2020). Countries such as China, Hong Kong, and Singapore have shown that the spread of COVID-19 can be controlled by governmental actions focused on social distancing measures (Anderson et al., 2020).

In Europe, the countries and governments also adopted social distancing measures, and in addition closed commercial business, restricted social gatherings, and limited sporting activities. At the beginning of the crisis, professional sport events continued to take place. The Italian Serie A was not stopped until 11 March 2020, when the first

football player in Italy, a country which had already alarmingly high reproduction numbers and fatality rates, was tested positive (Corsini et al., 2020). Because of their age and their physical fitness, professional football players are not exposed to a high risk of death by COVID-19 (Khafaie & Rahim, 2020). However, the coronavirus might lead to long-term health injuries of the lung (Chen et al., 2020), which can affect sporting performance and therefore should try to be avoided at all costs. Football is a team sport with permanent and close contact. Players do encounter each other on the field, in training, and during multiple team activities throughout the day whether with their teammates, the opponent, or the staff (Corsini et al., 2020). This sport fascinates masses of people around the world, who are frequently visiting games and sometimes undertake long journeys to see their favorite team. Travelling is one of the most contributors to disease transmission (Tian et al., 2020). Travelling is especially conducive to disease transmission when it involves mass gatherings. From the perspective of mitigating the spread of COVID-19, the primary arguments against football games are the massive numbers of people who are attending the game and the proximity of the crowd which increases the transmissibility of COVID-19 (Parnell et al., 2020).

As a consequence, policymakers and sport policy leaders postponed or cancelled professional sport events step by step. Moreover, most countries prohibited sporting activity as a consequence of social distancing measures resulting in the cancellation of training activity in professional sport. Leagues from Asia started to suspend match operations, with the Chinese Super League on 22 February 2020 and the Japanese J-League on 24 February 2020. Soon after, the spread of the virus reached Europe. The first affected football league was the Swiss Super League. Governmental orders prohibited major events with more than 1000 participants, which also affected the Euro League game between FC Basel and Eintracht Frankfurt on 19 March 2020. The city of Mönchengladbach banned spectators, making the match between 1. FC Köln and Borussia Mönchengladbach on the 11 March 2020 the first game in German Bundesliga history without fans. Officials of German elite football encouraged the economic importance of the games and insisted on playing on without fans. New information about games without fans, game postponements, or other impacts of the coronavirus on the professional sport were reported daily and, on some days, even hourly. Nearly every league in Europe gradually reacted to the spread of COVID-19 and suspended their game operations, except the 1. Liga in Belarus which was still playing (see Table 1). As of 13 March 2020, the five biggest European football leagues in the countries England, France, Germany, and Italy postponed their league matches due to public health concerns. Most of the league officials announced that the leagues will continue within the next weeks or months. For example, the games in Switzerland were prohibited because of a declaration, which first only applied until 15 March 2020. In England, elite football was suspended until at least 3 April 2020, and Germany and Italy planned to continue as of 30 April 2020. The combination of the frequent unexpected and surprising news regarding the suspension of elite football and the optimistic assessments of the continuation of the leagues illustrates the underestimation of the COVID-19 situation at the time.

Since then, most of the leagues have been working on plans to resume playing (Table 1). The first phase after the suspension was marked by uncertainty. Then, and in close contact with policymakers, leagues created concepts of hygiene measures, coronavirus testing, and distance rules to restart training and playing. Resuming to play is primarily important because of the economic impact of the consequences of the global pandemic. Games are the most important source of earnings and if they do not take place, the clubs' incomes decrease drastically (Szymanski & Weimar, 2019). However, the economic costs of staging games without fans, the costs of coronavirus testing, public health concerns, and governmental prohibitions lead to cancellation of elite football leagues in Argentina, Belgium, Netherlands, and later also Mexico (Table 1).

As of 16 May 2020, and after two months of inactivity, the German

**Table 1.**  
Situation overview of international leagues during the COVID-19 outbreak.

Country	League	Suspension*	Planned Restart*	Actual Restart
<b>EUROPE</b>				
Austria	Bundesliga	18 March 2020	2 June 2020	02 June 2020
England	Premier League	12 March 2020	12 June 2020	17 June 2020
France	Ligue 1	13 March 2020	Cancelled	-
Germany	Bundesliga	13 March 2020	16 May 2020	16 May 2020
Italy	Serie A	09 March 2020	End of June 2020	22 June 2020
Netherlands	Eredivisie	12 March 2020	Cancelled	-
Spain	La Liga	12 March 2020	11 June 2020	11 June 2020
Sweden	Allsvenskan**	19 March 2020	14 June 2020	14 June 2020
Switzerland	Super League	02 March 2020	08 June 2020	19 June 2020
<b>INTERNATIONAL</b>				
Argentina	Superliga	17 March 2020	Cancelled	-
Australia	A-League	24 March 2020	Tbd.	17 July 2020
Belarus	1. Liga***	Season running	-	-
China	Super League**	22 February 2020	End of June/ Beginning of July	25 July 2020
Japan	J-League	24 February 2020	13 June 2020	04 July 2020
Mexico	Liga MX	16 March 2020	Tbd.	Cancelled
Russia	Premjer-Liga	17 March 2020	21/28 June 2020	19 June 2020
Turkey	Süper Lig	19 March 2020	12 June 2020	12 June 2020
USA	MLS	12.03.	Not before 08 June 2020	12 August 2020

tbd = to be defined; \* = Status as of 15 May 2020; \*\* = Season start; \*\*\* = One game was postponed because players are suspected of being infected.

Bundesliga was the first league resuming the season. However, the restart was bound to strict hygiene protocols which were devised jointly by the Deutsche Fußball Liga (DFL) and policymakers at the highest levels. To be allowed to start team training, clubs have tested their players and staff for the coronavirus and went into voluntary one-week team quarantine in a hotel. On game days, no more than 300 people are allowed in and around the stadium, ball boys have to wear gloves and are reduced to four. The balls have to be disinfected before and during the matches. TV reporters have to wear masks as well and keep a minimum of two meters distance from each other. Players on the bench also have to wear masks and need to keep a minimum of two meters distance from other players. Moreover, players were advised to keep distance when cheering after goals resulting in elbow bumps rather than hugs. The Austrian football association developed a concept that was very similar to the German one, allowing team training since 15 May 2020, after widespread coronavirus testing, and resumed play on 2 June 2020.

The COVID-19 outbreak led to initial chaos in the game plan of most international leagues. The different approaches of the different countries towards COVID-19 can be seen in the different agendas of the leagues. Despite that, almost all leagues were able to end the season 2019/20. After the major European leagues decided to continue playing, a committee of the UEFA started to plan the international competitions Euro League and Champions League. As a result, the winners of both competitions were determined in mini-tournaments with quarter-finals, semi-finals, and finally played as single-matches. The Champions

League was held in Lisbon between August 12 and 23, and the Euro League was scheduled between August 10 and 21 in different German cities.

## 2. Theoretical background

### 2.1. Crisis and financial management in professional football clubs

PFCs are characterized by ongoing commercialization, having evolved from community-based sport organizations to major sport corporations (Calabuig et al., 2021). Despite the highly economical nature of professional football, it “continues to be a social business; economic in basis, but social in nature” (Morrow, 2013, p. 297). The evolution towards a business is considered as not congruent with the public reception of a football club as a community asset based on traditions and social value (Kennedy & Kennedy, 2012); a circumstance that entails an uncertainty also on the organizational ontology between being a business and being a community-based organization. The corporatization of a PFC can be seen above all in the legal form. The organizational structure of a PFC was an underemphasized research topic in sport management literature, and hence little was known about the predominant organizational concepts, ownership, and corporatization (Gammelsæter & Jakobsen, 2008). Within the last decade, researchers contributed a growing number of theoretical and empirical studies to the analysis of the market for football club investors (Ribeiro et al., 2019). Research increasingly explored the unique and widely varying corporate frameworks of PFCs. Rohde and Breuer (2017) analyzed the European football market for investors and found that incorporations of football clubs can be roughly divided into three groups: First, there is a small number of large clubs that generate significant revenues and hence can afford to remain fully member-owned. The most prominent member-owned clubs are Real Madrid or FC Barcelona, having a large fan base that constantly positions itself against the entry of (new) investors. Though these clubs are fully-member owned and therefore refer to a community sport organization, they are among the largest clubs in the world with high revenues and a large number of employees which leads to a structure similar to a corporation. Smaller member-owned clubs are advised to consider the entry of investors to remain nationally and internationally competitive. Second, few clubs have chosen the model of a public listed corporation. In the short-term, these clubs can generate a high amount of capital which also affects their sporting performance. However, being a publicly listed club does not tend to have long-term effects either on revenues or on international performance. Top clubs from the European league should consider going private again to be interesting for investors and therefore be able to collect additional resources. Third, which is also the major group and a kind of a standard, there are clubs with private investors. Private investors in football clubs are predominantly majority shareholders, giving them the ability not only to invest in a club but also to gain control over a club. An exception is the German Bundesliga and its 50+1 rule which limits the number of shares of private investors to a minority. Having a private majority investor is beneficial for team success and revenues, but leads also to a riskier investment strategy (Franck & Lang, 2014). In sum, one can conclude that there are only a few large and traditional clubs (e.g. FC Barcelona or Real Madrid) who can capitalize on their global brands and therefore stay being a fully member-owned club. All others are likely to have to increase their financial capacity with investors, whether through a public listing or a private investor, which entails a transformation from a community sport organization into a corporation.

The corporation of football clubs means that they think and act increasingly like companies. According to Moore and Levermore (2012), PFCs are highly comparable to small-to-medium sized enterprises (SMEs) in terms of employees, revenue, and organizational characteristics. However, the sport-related mission statement distinguishes football corporations from normal smaller businesses. PFCs reinvest profits or even take losses or debts to finance new players because football clubs



are win maximizers rather than profit maximizers (García-del-Barrio & Szymanski, 2009). The clubs spend as much as they can following the maxim of winning. As a result, they try to balance their budget and calculate with only a small profit. This makes them especially vulnerable to financial problems because unexpected and adverse shocks (e.g. injuries of important players, drop-out of important sponsors, relegation) promptly distress liquidity. This behavior is often described as irrational or even incompetent, yet it is only a response to the incentive scheme found in the sport system (Szymanski & Weimar, 2019). For example, the relegation into a lower league has huge influences on the revenues (Schreyer et al., 2018). Hence, it is rational that football clubs try to invest everything they have to prevent this sporting and financial misery. This starts kind of a rat race which pushes some clubs to overinvest beyond their financial limits and sometimes even into insolvency (Szymanski & Weimar, 2019). Adverse shocks, triggering financial distress in a football organization, can be all kinds of crises that affect football frequently and in several ways. In general, smaller organizations tend to suffer above average from crises due to a lack of resources, limited experience, and a lower formalization of crisis management planning (Doern, 2016; Kraus et al., 2013). For these firms, it is also harder to assess the finance needed to address the stage of recovery (Lee et al., 2015), especially for a high-risk sector like football. In sum, it can therefore be said that PFCs are highly susceptible to crises because of their financial management, the uncertainty of their environment, and their size. Hence, there is a considerable need for permanent monitoring of both internal and external developments as well as crisis preparation of any football organization (Manoli, 2016).

## 2.2. Sport entrepreneurship and crises

The concept of sport entrepreneurship has been a progressively emerging research topic within the last few years (Escamilla-Fajardo et al., 2020; Huertas González-Serrano et al., 2020; Pellegrini et al., 2020). Though being a common vocabulary in sport management research, sport entrepreneurship still lacks a proper systematization, and several key concepts related to this field are open to interpretation and lack consensus (Bjärsholm, 2017; Hammerschmidt et al., 2020; Pellegrini et al., 2020).

It has been shown that organizations with an entrepreneurial profile can overperform during recessions followed by crises (Devece et al., 2016). In times of crisis, entrepreneurial organizations are more likely to survive and in the recovery phase, they show higher rates of growth, size, and job creation (Devece et al., 2016). Most researchers agree that entrepreneurial organizations are conceptualized as possessing the main characteristics being innovation, risk-taking, and proactiveness (Kreiser & Davis, 2010; Wales et al., 2020; Wiklund, 1999). Innovativeness is a very common business practice among SMEs (Kraus et al., 2012) and can improve business performance in a hostile environment of economic decline (Mendoza-Ramírez et al., 2016). Further, a proactive posture focused on creating innovative products or services will positively affect the operating results (Mendoza-Ramírez et al., 2016). Proactiveness is an “opportunity-seeking, forward-looking perspective involving introducing new products or services ahead of the competition and acting in anticipation of future demand to create change and shape the environment” (Lumpkin & Dess, 1996, p. 431). Proactive behavior is contrary to reactive behavior and in times of crisis, a mixture of these two can be essential for getting through a recession (Petzold et al., 2019). However, Brzowski and Cucculelli (2016) have shown that the magnitude of a crisis related revenue reduction of companies is associated with the likelihood of reactive behavior, being especially apparent in the case of innovative investments.

For Jones et al. (2017), sport is a natural setting for entrepreneurial activities like seeking and capitalizing opportunities, which are viewed as key factors for success during recessions. Extant research suggests that the very nature of professional sport comprises several characteristics that support entrepreneurial behavior like ambition, commitment, or a

hands-on mentality (Hemme et al., 2017). Ratten (2011) noted that sport organizations are highly proactive in managing their teams. Having an entrepreneurial lens is said to possess the potential of reducing the complexity of varying stakeholder perspectives in sport (Ratten & Ciletti, 2011) which can make it easier to focus on essential organizational activities during unstable and highly demanding times. Ball (2005) explains that having the mindset of an entrepreneur can increase economic efficiencies and hence save important resources for investments in the team. Recent research confirms the positive effects of entrepreneurial orientation on the sporting performance of football clubs and social performance (Hammerschmidt et al., 2020; Núñez-Pomar et al., 2020).

In this study, we define sport entrepreneurship as the emergence of entrepreneurial orientation and its subdimensions leading to entrepreneurial behavior in professional sport organizations. Evidence shows that sport entrepreneurship has become not only a strategic option for a club, but rather a managerial need to stay competitive in the hostile sport market (Legg & Gough, 2012; Ratten, 2010). As a result, one can conclude that it should also be relevant for coping with a crisis such as the COVID-19 pandemic.

## 3. Methodology

This empirical study is based on an exploratory multiple case study approach that aimed at understanding how PFCs from different countries are coping with COVID-19. As this topic reflects an infant research field, a case study approach was considered suitable (Gibbert et al., 2008). A case study “attempts to examine: (a) a contemporary phenomenon in its real-life context, especially when (b) the boundaries between phenomenon and context are not clearly evident” (Yin, 1981, p. 59). Yin (2009) further highlights the importance of clearly defining the case to be investigated. In the present study, the case of inquiry is an analysis of PFCs trying to tackle the current (business) environment caused by COVID-19.

### 3.1. Data collection and sample

Data was collected through interviews with CEOs of PFCs. They were considered suitable participants for the present study, as they dispose of the necessary knowledge on the topic under investigation. More precisely, semi-structured interviews were conducted as this mode of interviewing is flexible when it comes to the order of questioning and themes to be covered, still the discussion is centered upon the research topic, which is introduced by the interviewer (Klenke, 2008). An interview guide supported the execution of the interviews. Consequently, the number of focal themes were specified at the outset of the interviews. More precisely, the content of the interview guide focused on the effects on the club, acute actions of the PFC, and assumed long-term changes. Given the exploratory character of the present study, the procedure taken was not only related to a deductive approach, but included an inductive one as well. Thus, the prior framing of the field supported in coming close to the interviewees and their opinions and views but was open to adjustments and changes too.

The sampling method followed the underlying notion of purposive sampling (Easterby-Smith et al., 2012). The participants came from five different countries, namely Austria, Germany, Sweden, Switzerland, and the Netherlands. To be selected, they had to follow the criteria of being a professional club in a professional league in Europe. The CEOs were contacted by phone or email and invited to participate in a telephone interview. This resulted in ten interviews that were conducted in April 2020. As a homogeneous population was involved in the present study (Saunders & Townsend, 2018), ten interviews were considered to be an appropriate sample size. Table 2

The interviews lasted between 20 and 45 minutes and were conducted in German (for the football clubs in Austria, Germany, and Switzerland) and English (for the clubs in Sweden and the Netherlands).

**Table 2.**  
Overview of the informants.

Interviewee	League	League Level	Nr. of employees <sup>*</sup>
<b>AUSTRIA</b>			
FC Admira Wacker Mödling	Bundesliga	1	20
LASK Linz	Bundesliga	1	20
SCR Altach	Bundesliga	1	20
TSV Hartberg	Bundesliga	1	20
<b>GERMANY</b>			
1. FSV Mainz	Bundesliga	1	100
SC Paderborn	Bundesliga	1	80
SpVgg Greuther Fürth	2. Bundesliga	2	60
<b>NETHERLANDS</b>			
AZ Alkmaar	Eredivise	1	-
<b>SWEDEN</b>			
Mjällby AIF	Allsvenskan	1	10
<b>SWITZERLAND</b>			
Grasshopper Club Zürich	Challenge League	2	70

<sup>\*</sup> = without players

All interviews were recorded, and in the next step transcribed and coded.

### 3.2. Execution of thematic analysis

As outlined above, the given study follows an exploratory approach. Hence, the used method should offer an accessible and theoretically-flexible approach to analyze qualitative data. Thematic analysis is a method for organizing and describing a data set, highlighting the most important themes that appear to be important for understanding and interpreting various aspects of the research topic (Fereday & Muir-Cochrane, 2006). The thematic analysis is appropriate for the present research because it is a rigorous method to create useful results in a complex surrounding (Nowell et al., 2017).

More precisely the analysis was conducted as follows. It started with the word for word transcription of the recorded interviews. This was accompanied by initial note-taking to document interesting statements to be remembered for the deeper analysis to come. Once this was done, interesting parts of each interview were coded in a systematic approach across the entire data set. Each data item has been given equal attention in the coding process and the data items were analyzed independently. Next, the codes were assorted into thematic groups. The topics were constantly refined and checked for internal homogeneity and external heterogeneity to ensure a coherent and meaningful analysis (Braun & Clarke, 2006). This was a two-stage process of revision and refinement. First, preliminary topics were examined at the level of encoded data items, with all transcription extracts read for each topic to provide a consistent model. If data items had no relation to the current topics, new topics were created. On the other hand, topics that were similar in content were summarized to enable the identification of overall themes. Second, after all the topics had been reviewed, an overview of the generated topics was applied, where the preliminary topics were examined in regard to the total data set to review if the provided analysis is competent enough to reflect the data holistically. This means that the remarks of a single interviewee could not lead to a topic. That is, the researcher often switched between the transcribed data set and the candidate topics, including any additional data that may have been omitted during the analysis process. As a result, the outcomes were subsumed under overarching themes, namely financial management, crisis management, stakeholder management, and solidarity and society.

All interviews were analyzed in the language in which they were conducted. When the process was completed, German parts were translated into English. The data was analyzed and interpreted by two researchers to provide a good balance between analytic descriptions and

illustrative statements. Finally, the most relevant examples for answering the research aim were extracted and used for the scientific report of the analysis.

## 4. Findings

The interview findings suggest that the clubs were equally affected by the COVID-19 pandemic since all participating clubs play in leagues that have cancelled or postponed their matches. The league match schedules were dependent on the governmental measures and hence the timing in each league was slightly different (see Table 1). Despite these similarities, the findings of the interviews show that the clubs involved handled the crisis in different ways. The analysis of the interview data led to several key insights when respondents talked about their club's reaction to the COVID-19 pandemic, which formed the framework for the following presentation of results.

### 4.1. Financial management

Corona seems to have a great impact on the clubs' liquidity as their main income streams are revenues from TV rights (up to 50% and more of their budget) and match days (merchandising, ticketing, hospitality, etc.). As mentioned above, football clubs try to balance their budget and only calculate with a small profit (Garcia-del-Barrio & Szymanski, 2009), hence the decrease of income challenges the clubs' financial management. Even though the level of liquidity of the clubs varies, they are expected to be able to survive without playing until August 2020. Those clubs with revenues from the participation at international competitions were able to generate larger surpluses and at the time of the interview, they reported no financial problems. Interviewee 1 mentioned that the entire income from international competitions is profit because they have not taken these revenues into account when planning their budget. The interviewee also admitted that they were lucky with their sporting success. One interviewee of a German club reported that making surpluses and creating reserves are disadvantageous because these profits have to be taxed. Limited liquidity is inherent in professional football organizations and is especially apparent in times of the corona crisis, the following examples illustrate that:

Interviewee 4: "The club is economically affected [...] certain income is missing [...] because our budget is very limited, it is very difficult to build up reserves somewhere. And that's why it will be the normal case in the future that you calculate that you will have zero at the end of the season [...] we can only build reserves when there are unplanned earnings"

Interviewee 5, answering the question of how they are affected by the corona crisis: "The TV money is more than 50% of our budget and is now missing [...] nearly every income stream is now in danger [...] there are clubs who have already spent the TV revenues which they do not receive now [...] of course we have to be careful now, how can we secure liquidity?"

Interviewee 6, answering the question whether they are affected by the corona crisis: "We are of course also highly affected [...] we really want to finish the season, just to try to somehow get back to the normality of the income sources [...] have to keep playing to be able to exist"

Against the above-mentioned, it is not surprising, that only some of the clubs involved reported that they are actively engaged in building liquidity reserves. On that matter, the Swedish informant reported that football experts had started a debate in Sweden about regulatory actions that clubs must have 10% of their turnover available as liquid assets.

Most of the clubs (8 out of 10) responded to the decreased income and financial instability by introducing short-time work. With regards to costs, the largest item is player salaries. For example, interviewee 2 mentioned that "the highest costs incurred by a football club are naturally the personnel costs of the licensing department plus the trainer staff and administration and organization. The personnel costs account for

about 70 percent of the total turnover". Under the short-time working model, up to 50% of personnel costs can be saved due to substitutions by the state, and hence it was the most important action to decrease costs. Another interviewee stated that they even discussed with the players to reduce their salaries and bonuses beyond the governmental regulations. While a further interviewee reported on a possible measure to reduce costs by shutting down the stadium infrastructure.

Only two participants explicitly mentioned that they did a thorough cost analysis to detect saving potentials. To generate substituting revenues, some clubs take a proactive and innovative approach by offering tickets for a TV show (product) or a virtual game (donation).

#### 4.2. Crisis management

As regards the approach to crisis management, almost every club (9 out of 10) was in a wait-and-see mode and made plans for different scenarios to be able to react. As mentioned in the theoretical foundations, reacting is the opposite of proactive behavior, which refers mainly to an acute action and less to planning. Hence, only one club showed proactive behavior and reported weekly scheduled forecasts and analyses, resulting in acute actions. In the following some examples are listed illustrating this approach:

Interviewee 4: "We will adapt [...]. At the bottom line, we have no other choice either"

Interviewee 5: "The most important thing is clarity. And when you have that, you can talk about the future, talk about action"

Interviewee 8: "We plan from day to day"

The overall findings suggest that PFCs neither have expertise in managing crises nor necessary structures for dealing with them. The findings further indicate that clubs with high surpluses because of revenues of international competition felt confident in having done a good job in the last year and plan to continue with it. Interviewee 9 stated that "toward the end of the season, even if we don't play a single game anymore, this club will make a profit".

#### 4.3. Stakeholder management

Another important source of income for a PFC is sponsorship and hospitality. An interviewee from Austria reported that 45% of their income is generated through sponsorship and hospitality. Since the clubs are not playing, they cannot provide the sponsorship service. Interviewee 6 reported, that "we have a few who are terminating their sponsorship contracts due to non-fulfillment because there are no games and they don't get their advertising services". However, most of the stakeholders (sponsors, fans, etc.) waive repayments. Another club expects a loss of sponsorship of about 10%, suggesting that this is not because the sponsors don't want to be active but because they financially suffer from the crisis as well.

To avoid repayments, some clubs have started offering their sponsors and fans a form of compensation through increased social media appearance, extra advertising time in the next season, or merchandising products from the fan shop. An initiative from one participant from the Austrian Bundesliga is to offer their fans a place on a match jersey if they waive the repayment of their season ticket.

With regards to external communication, the findings indicated that only a few clubs have an intensive exchange with their stakeholders. For example, interviewee 10 sends weekly newsletters to their sponsors, while some other interviewees reported an emotional bond with their sponsors, and have contacted each sponsor personally to get through the time together.

The main sponsor of interviewee 2 is a sport betting company, so it is also active in the same industry as the club. This means that when the sport industry is in crisis, not only the club but also the main sponsor is affected. Other clubs involved in the study have main sponsors which are not endangered because they are either financially very potent or active in crisis-proof sectors, like baby nutrition.

Interviewee 1: "All sponsors without exception do not want their money back, even if the league is cancelled"

Interviewee 9: "We try to stay connected with our stakeholders"

Interviewee 10: "A lot of companies have hard times now and the first thing they cut off is sponsorship costs"

#### 4.4. Solidarity and the social role of PFCs

All clubs reported an enormously high level of solidarity, which appeared in many different directions. Fig. 1 represents an overview of all streams of solidarity found in this study, whereas each stream is represented by a numbered arrow.

Nearly every club reported great support from their sponsors (Stream 1). Interviewee 1 mentioned that all of their sponsors guaranteed their contractually determining payments, even when the season will be canceled. While Interviewee 2 reported, "it is the goal to ideally not return any funds".

Most of the sponsors show readiness to help the clubs by, for example, accepting compensation through social media presence or more advertising time next season and hence pay out the full amount of the sponsorship funds. The club of Interviewee 9 showed high solidarity to his sponsors by paying back sponsorship money to sponsors and service providers that are in financial need because of the economic impact of the crisis (Stream 2 and 3). Vice versa, there are service providers who are open to discussions about deferring payments (Stream 4). Leagues and international associations supported clubs with a lot of flexibility regarding match schedules, rules for club insolvency, and creating possibilities to extend player contracts throughout the summer (Stream 5). However, interviewees 2, 3, 8, and 9 mentioned a lack of action from the major associations UEFA and FIFA, above all financially.

On that issue, Interviewee 2 mentioned "we all know they are rich".

In financial terms, short-time working was the most important measure and is based on a voluntary commitment to forego salary by the highly solidary employees (Stream 6). A German club reported that players waive part of their salary and give it to club employees so that they can continue to receive their full net salary (Stream 7). The wealthy clubs involved in the study stated that they forego state aid and pay their employees in full, even though they hardly work at all. In Austria, Sweden, and the Netherlands, the Interviewees reported a high level of solidarity between the clubs (Stream 8), Interviewee 3 summarized it as "the crisis unites".

In Sweden, the clubs have frequent league meetings and share best practices and ideas about how to cope with the crisis. The highest level of solidarity between clubs seems to be apparent in Germany where the FC Bayern München, Borussia Dortmund, RB Leipzig, and Bayer Leverkusen created a €20 million solidarity fund to help German clubs of the top two tiers to avoid a potential financial crisis during the pandemic. The interviewees also reported that they receive support from states or stakeholders (Stream 9). In Sweden, sport is backed by the state with an aid package amounting to 50 million euros. Professional sport in Switzerland was supported with €50 million and the possibility to receive a loan from the government. The TV broadcaster Sky Germany supported the German football clubs by paying TV money in advance, which is normally paid out after the respective quarter (Stream 10). The findings suggest that there is strong solidarity between the PFCs and their fans (Stream 11 and 12). It has been reported that the fans of the participating clubs were consistently willing to waive the repayment of their season tickets. One club from Austria organized a game without opponents, a fictive game, and the fans bought tickets, virtual snacks, and virtual drinks to support their club.

Additionally, the clubs involved in the study have shown great solidarity with society as a whole. The GC Zürich, and its employees, for example, created a fund to financially support people from Zürich who are suffering due to the crisis. Season ticket holders of a German club waived their right of refund and the generated money was partially distributed to regional amateur football clubs to support them. Other

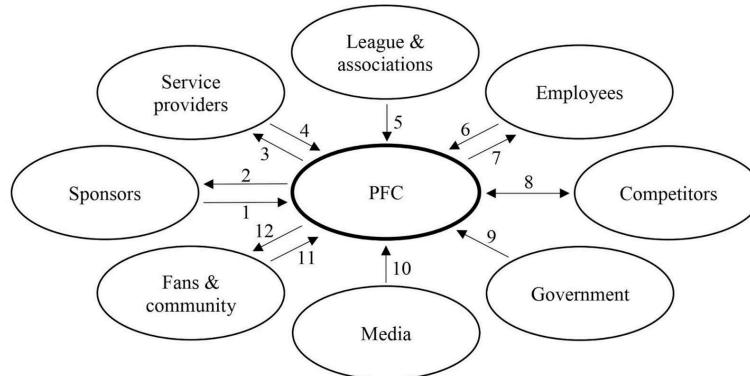


Fig. 1. Streams of solidarity.

interviewees reported that they have teamed up with their fan club to help the elderly or provide free drinks to hospital employees. Interviewee 1 explained that when their employees have time left over, they do a telephone service for the regional Red Cross. Every club offered their fans a full or partial refund for their season ticket. As mentioned above, clubs tried to avoid monetary refunds and offered compensations, for example, by merchandising products from the fan shop. As many fans want to support their club and they waive compensation offerings or refunds. Interviewee 6 believes “with solidarity, you can overcome any crisis”.

Furthermore, the findings suggest that there are cultural differences. Non-German clubs emphasized the importance of football’s role model function for society. Interviewee 10, for example, mentioned “the clubs are very important for the whole Swedish society”. More critically, Interviewee 1 meant that “you ask everyone to stay at home and the superstars don’t. This is a disaster for me! It’s the same thing when I send people to a training facility. I tell everyone that you should stay at home, but we are training again. This is extremely counterproductive for me at a time like this and I can’t understand it”. German clubs, on the contrary, emphasized the economical relevance of professional football stating the wish to be perceived as an industry and treated accordingly. For example, interviewee 6 explains that at the time of the interview, their club was not allowed to train, since their training court counts legally as a public sport ground and not a business facility. Simultaneously, business facilities and factories were open. This interviewee added: “Football is no fun event. Football should be treated like any other business”. In a similar vein, Interviewee 7 mentioned that “football is described as a ‘fun event’ although in Germany 60 000 jobs are involved”.

German clubs criticize the reduction of football to “22 field players who earn millions” (Interviewee 7) and emphasize the offered added value of football to society, also outside of the pitch. In addition, Interviewee 6 mentioned, football is not only about the players, “but also about the one who does the ticketing, sells the snacks or takes care of the fan projects for 2000 Euro gross”. Interviewee 6 added: “We know of course that football is always associated with the millionaires, who people just like to see and say yes, they have money, and they don’t need it, they have to give something away”.

#### 4.5. Change management

The overall findings suggest that the clubs believe in a short-term levelling down of the market which means that transfer expenses will decrease. However, they also believe that the market will recover in 2-3 years because clubs will continue to spend the funds that will be

available to them. Interviewee 7 described it as: “Humans forget quickly”. Interviewee 10 believes in a “wake-up call” for many clubs that will allow them to plan their finances more conservatively to survive future crises. Another assumption is that football may become more down-to-earth again, which explained Interviewee 7 as follows: “Does it have to be a 5 star plus hotel every time, or is 4 stars, not enough?”. Two clubs that were financially strong during the time of research and emphasize that they want to continue as before, although being aware that the world of values may change. As interviewee 1 said: “We are very satisfied [...]. The structure is ok, the financial development, the economic development is ok and as I said, great luck that we had this year [...] is the sporting success in the Europa League”.

In general, the interview participants show a low level of opportunity seeking. Interviewee 3 states that “every crisis is a challenge, an opportunity”, but cannot name any particular opportunity he has recognized. Interviewee 9 added that “it doesn’t feel right to talk about chances when people are dying left and right”.

Further, interviewee 9 suggests that large clubs, in particular, will benefit from the crisis: “Usually in any financial crisis, the strong get stronger and the weak get weaker [...] if you are in a healthy position, you might benefit from this in the long run”. Three clubs see the crisis as an opportunity for their young players, who are cheaper and may get more chances in times of limited budgets. Interviewee 1 explains that “we have a cooperation club that plays in the second league [...] there are many talents that don’t cost so much money but still perform well. I think that almost all clubs will have to count every euro in the contract negotiations in the future. The transfer fees will decrease and it will take 2-3 seasons until they are back to the level of before”. Most interviewees seem to agree that the COVID-19 crisis will accidentally change the football business due to its already highly apparent impact. However, they find it difficult to imagine or predict distinct changes at present.

## 5. Discussion

Our study is the first empirical work in the field of organizational management providing insights about the coping behavior of ten European professional football clubs with the ongoing COVID-19 pandemic. The findings contribute to current literature in various ways.

### 5.1. Financial management

The research has shown that the biggest problem during the Corona crisis is the liquidity of the clubs. In general, our study supports the statement of Garcia-del-Barrio and Szymanski (2009) that PFCs try to

maximize winning rather than profit. The organizational goals of maximizing sporting performance lead to a very tight budget with only small profits (Garcia-del-Barrio & Szymanski, 2009) which was confirmed by the CEOs of the clubs in the interviews. The interviewees also acknowledged that some of the clubs would not survive the corona crisis for long, as the pandemic had left them with no income, confirming the vulnerability of professional football in crises (Manoli, 2016). Our findings further emphasize that football organizations are frequently affected by unexpected adverse shocks (Szymanski & Weimar, 2019) which let us conclude that they are either unaware of the particular vulnerability of the industry or ignore it on purpose to remain competitive and thus simply hope for the best. Our results support the findings of Manoli (2016) that PFCs need a considerable amount of permanent monitoring of both internal and external developments as well as crisis preparation. However, our interview findings revealed that none of the participating clubs has adequate crisis management structures. Moreover, most of the CEOs stated that they are in a wait-and-see position and rather react to new circumstances than approaching the situation proactively through systematic behavior and planning. These results show that the process of crisis management is severely neglected in PFCs and they are therefore not prepared for a crisis.

The corona crisis has sparked conversations about the financial management of PFCs and one interviewee from a Swedish club mentioned that for this reason, the football industry and policymakers in Sweden are now talking about the requirement that clubs must have 10% of their income available as liquid assets. Based on the findings, this seems to be a reasonable and practicable solution, because, on the one hand, it considers the financial possibilities of each professional club, whether the first or second league, and on the other hand it affects all clubs at the same time equally. However, this may impact the expenses for players of all Swedish clubs for one year and therefore their performance in international competition could suffer. An even more practical way would be if the UEFA would integrate such a liquidity rule into the already existing Financial Fair Play regulations, established to improve the overall financial health of football (Müller et al., 2012).

Not surprisingly, and in line with previous research, the findings of this study show that financially potent clubs are less concerned about COVID-19 and its possible consequences. Our study indicates that clubs that have outperformed expectations in international competitions can make profits even in times of crisis. However, it might be questioned if this results rather from sporting luck than from good planning.

## 5.2. Stakeholder relations

Based on the findings it can be concluded that managing stakeholder relations should play an even stronger role in times of crisis. Concerning the selection of stakeholders from the outset and where it is possible, the findings point out that it is advisable to choose sponsors who are active in industries that are more crisis-resistant, as a recession in sport then does not affect sponsors in the same way. Since sponsorship is one of the main streams of income for PFCs, we have also seen that clubs should not only focus on sponsors from a crisis-proof sector but should also look for financially potent sponsors who can increase the probability of continued support even in times of crisis. In addition, our results show that the clubs in the COVID-19 crisis benefited from the fact that their main sponsors were active in general crisis resistant sectors such as the food, pharmaceutical, or telecommunications industry. However, COVID-19 pandemic has caused widespread and significant economic consequences for companies in several industries (Baker et al., 2020). Many sponsors of the participants suffered from the current downturn and interviewees reported that they expect a sponsorship loss, not because the sponsors don't want to but primarily because they are financially not able to. Some interviewees reported a strong emotional bond with their sponsors, resulting in high levels of loyalty and support regardless of the current situation. Hence, our findings support previous research (McDonald et al., 2010), that maintaining stakeholder loyalty is

paramount in times of crisis.

Further, the statements of the club CEOs indicate that stakeholders have different perceptions of a PFC as a corporation and of football as an economic sector. Within the last decades, PFCs have evolved into large commercial enterprises (Ribeiro et al., 2019; Szymanski & Weimar, 2019), but are still basically perceived and treated by the public as community-based sport organizations. Larger clubs in particular showed a desire to change this perception and emphasized football as an important economic sector. The commercialization and corporation of PFCs mean that they think and act increasingly like companies. In addition, the professional football sector has not only a major social but also economic impact (Szymanski & Weimar, 2019). These are facts that are well-accepted in research but not in public.

Our study also revealed remarkable levels of solidarity between the PFC and external stakeholders facing the crisis. The COVID-19 pandemic was enormous financial distress for PFCs. Their income collapsed and liquidity was limited to such an extent, that almost every club was or is threatened in its existence. The investigation clearly shows that this situation thus created a sense of commitment to support each other in solidarity. The findings suggest that the highest solidarity was found between the PFCs and their fans. Fans are prepared to waive repayments for season tickets or buy tickets for fictional games. The study has shown that the fans not only support their teams at the stadium with their cheers but also show strong solidarity in times of crisis. Additionally, there appears to be reciprocity between these two actors. Some employees of the Swiss club Grasshoppers Zürich created funds to support fans who were suffering from the corona crisis. The findings obtained seem to be in line with previous research showing that the relationship between fans and PFCs is characterized by a strong emotional bond (e.g. Katz & Heere, 2016). In addition to this expected relationship, the interviews revealed that also other stakeholders showed strong solidarity. One would assume that this is a matter of economic thinking because, for example, a stakeholder does not want to lose a good customer or employees want to support their club to not lose their job. However, our interviews reveal that there is a network of support with stakeholders (Fig. 1) who show a high degree of solidarity based on how emotionally attached they are to the club and are therefore intrinsically motivated to support their club and overcome this crisis together, even if it seems irrational.

## 5.3. Sport entrepreneurship

The literature review indicates that sport entrepreneurship is an elementary management strategy for PFCs and has the potential to be a relevant instrument to cope with the COVID-19 crisis. Entrepreneurial activities, such as capitalizing opportunities by entering new or existing markets with new or existing goods and services, are referred to organization's entrepreneurial orientation (EO), which is expressed by the combination of the three dimensions innovation, pro-activeness, and risk-taking (Wiklund, 1999; Wiklund & Shepherd, 2003). Recent literature emphasized the opportunity of organizations with an entrepreneurial profile to overperform during times of economic decline (Brzozowski & Cucculelli, 2016; Devece et al., 2016; Petzold et al., 2019). The findings have shown that some clubs have chosen innovative approaches to counteract the reduction in income by introducing new products or services to their fans.

The findings, however, also showed that PFCs tend to be rather reactive in times of crises and adapt to new circumstances because they have to and not because of an entrepreneurial mindset of the PFCs' management. An entrepreneurial mindset was not evident in this study. That is, we assume that a high revenue reduction fosters the likelihood of non-proactive behavior of football CEOs.

## 6. Conclusion

In this article, we investigated the responses of European

professional football clubs to the COVID-19 pandemic during the season 2019/20. The COVID-19 pandemic represents a new type and quality of challenge for sport organizations. Ten semi-structured interviews with CEOs of PFCs from Austria, Germany, Netherlands, Sweden, and Switzerland provided in-depth insights about how the football sector copes with the corona crisis. More precisely, this paper sheds light on strategic responses concerning financial management, stakeholder relations, and the importance of sport entrepreneurship in times of crisis.

### 6.1. Practical implications

Our qualitative investigation revealed that the corona crisis caused existence-threatening liquidity issues and stressed the financial management of many PFCs. Professional sport organizations calculate in general only small profits and the sector is highly vulnerable to crises, a combination that makes professional football unstable and fragile. Unexpected adverse shocks that lead to a revenue reduction, like the COVID-19 pandemic, have the potential to financially collapse the industry, emphasized by our interview participants who reported that without playing most of the clubs would not have survived longer than until August. The findings of our study revealed that PFCs have hardly established any crisis management structures and we suggest that PFCs engage in developing internal expertise on how to deal with a crisis.

Sponsors are one of the major stakeholders of PFCs. To diversify the financial risk of a club, our interviews highlighted that it might be beneficial to have a main sponsor from an industry whose economy is not cyclical with sport or, even better, from a crisis resistant sector. Further, PFCs should invest in the relationships with sponsors because an emotional bond will enhance loyalty and therefore increase the chance of getting support in times of recessions. The media echo during the COVID-19 pandemic exposed that the public still perceives PFCs as community-based sport organizations and that their economical relevance is neglected. We reinforce the call of our interview participants to perceive and treat PFCs more as a company. However, one should bear in mind that although PFCs are highly commercialized, they are still social in nature. This was made particularly clear by the COVID-19 crisis and the various streams of high solidarity between the PFC and its stakeholders, leading to mutual support and a sense of unity to overcome the downturn.

In terms of entrepreneurial orientation of PFCs, our study shows that the revenue reduction due to the COVID-19 pandemic increases the likelihood of reactive behavior and decreased proactivity. However, PFCs are well advised to engage in sport entrepreneurship since the findings indicate that an entrepreneurial profile is a paramount factor for surviving during and after a crisis. Our overall findings suggest that PFCs are well advised to use the sport's inherent potential for entrepreneurship (e.g., Ferreira et al., 2019) in periods of recession since it may be an important factor when it comes to organizational performance in times of economic downturns.

### 6.2. Limitations and future research

In the context of this study, we qualitatively examined ten PFCs from a total of five countries. The study design was carefully selected to increase the likelihood of analytical generalization. The study represents an urgent first step that will hopefully trigger future studies examining the impacts of crises in sport, but it remains an exploratory study that offers only preliminary results. The study design limited the sample size to professional clubs from European countries and hence limited the generalizability of the findings.

Despite these limitations, we consider this exploratory investigation to be an important early contribution to research on the management of sport organizations in general and in the realm of an external crisis such as the COVID-19 pandemic in particular. Therefore, a number of promising future research avenues are ahead. The interviewees assume that the crisis is causing a significant yet unintended change in the

football business. Future research should focus on the impact of COVID-19 on both the financial and non-financial performance of PFCs. The same refers to the impact of the measures initiated. Our study can only provide tentative results and calls for more rigorous research on the consequences of the coping measures and actions identified. The study of long-term effects, followed up with longitudinal analyses to investigate strategic responses of PFCs to the corona crisis will have to be the goal of future research. More research is also needed on crisis management in sport organizations, the findings indicated a serious lack of expertise and understanding concerning this relevant business function.

Finally, we also encourage researchers to examine the effects of the COVID-19 crisis and responses of professional and non-professional sport organizations in other countries and regions to achieve a global and more comprehensive understanding.

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## **Publication II**

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**Converting sporting capacity to entrepreneurial capacity: A process perspective**

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## **Converting sporting capacity to entrepreneurial capacity: a process perspective**

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**Abstract:** Managing a personal sporting career and conducting an entrepreneurial initiative are two vitally connected processes. Most athletes require a second career and many engage in entrepreneurship. Research on the similarities and differences of the sports career management process and entrepreneurial process – with a special emphasis on the necessary capacities – will have a ready audience among practitioners. This study begins the task of closing a surprising gap. In entrepreneurship literature, there is (1) growing research on entrepreneurial process and entrepreneurial capacity as the key driver; (2) strong work in generic, descriptive and explanatory modelling of process as a whole and capacity as a sub-process; and (3) the presence of a generic model of entrepreneurial process based on what distinguishes entrepreneurial capacity from other human capacities. In sports management literature, these research strands are virtually absent. The study indicates how the deficiency might be remedied.

**Keywords:** entrepreneurship; entrepreneurial; sport; athlete; career; management; transition; process; capacity; human; professional.

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## 1 Introduction

Evidence highlights that nearly all professional athletes progress to a second career and a great many undertake entrepreneurship as that career option (Murphy, 1995). However, current work on the relationship between the phenomena of sporting career management and entrepreneurship is unsatisfactory. Only recently have academics sought to specifically explore this area (Terjesen, 2008; Ratten, 2011a; Ratten and Jones, 2018). The key problem in studying the nexus between sport and entrepreneurship – in particular, the processes and capacities necessary for both – is that any attempt to conduct a cross-disciplinary investigation is impeded by a surprising ontology mismatch. Entrepreneurship as a process and entrepreneurial capacity as the key component of that process are becoming increasingly well studied and well modelled (Ucbasaran et al., 2001; Pilegaard et al., 2010). There is a longstanding and recently burgeoning interest in entrepreneurial process and entrepreneurial capacity. Moroz and Hindle (2012) have examined the 32 entrepreneurial process models to be found in the entrepreneurship literature from which Hindle (2010a, 2010b) has developed a harmonised model of entrepreneurial process (MEP).<sup>1</sup>

Regarding sports management literature, there is a virtual absence of any generic, multi-faceted discussion and modelling of the process and capacities required for creating a successful sporting career. Ontological perspectives adopted and used are focused almost entirely on traits and cognitive issues that extend from the research domains of sports psychology (Goxe and Viala, 2010). This makes it difficult to investigate the integrative perspectives of process and capacity relevant to becoming a professional athlete that may also be important to transition into an entrepreneurial career.

Until the sports management literature catches up with entrepreneurship research, it is going to be very hard to systematically explore the relationship between the phenomena. The relationship is worth investigating because many athletes turn to entrepreneurial venturing as their initial attempt to create the second career that nearly all (especially semi-professional or short-term professional) athletes inevitably face (Jones et al., 2017). For example, Boston College has developed a program that emphasises second career preparation for athletes. Kenny (2015) highlights that the transition to the business world through entrepreneurship and franchising is a route chosen by numerous professional athletes, and there is a growing literature that suggests athletes make effective business people. It is therefore an important, under-researched, global phenomenon and one where researchers have genuine potential to provide useful guidelines to practitioners.

Jean-François Astruc has effectively expressed this global problem. Astruc is an elite athlete and businessman. Previously, Astruc led the finance commission of Biarritz Olympique, is a former multiple Champion of France, vice-champion of Europe in rugby in 2006 and chairman of the Académie Basque du Sport. On the Academy's website Astruc articulated a universal issue informing the destiny of every professional athlete.

Good sportsmen are excited by their work. This excitement, which lies at the origin of their career, remains their 'engine' throughout their life. From a very young age, they commit and involve themselves in their teams and in their clubs. They concentrate their efforts on becoming the very best. But a career in sports is short and uncertain. Sportsmen may reach their [sporting] objectives. They learn how to endure hardship; but they also often find their career ended earlier than they expected. All this energy and self-denial has often left them little time to think about a future [second career]. (Astruc, 2010)<sup>2</sup>

The revelation may come suddenly and towards the end of a sports process, rather than being well considered throughout that hectic first career, but every astute athlete eventually recognises the essential importance of moving to a second career. Moreover, that second career is often an attempt to try entrepreneurship. Currently, anecdote rules with regard to the sports-entrepreneurship relationship. Guidance would be particularly useful to establish a concept which offers more information regarding what the two processes – ‘doing’ sport and ‘doing’ entrepreneurship – had in common and where the distinctions lay. The purpose of this study is to initiate a systematic, comparative understanding of the relationship between the process of managing a professional sporting career and the process of entrepreneurship. We highlight the capacity component of the sports management process in particular since theory has modelled capacity as key driver of the entrepreneurial process. Thus, this study contributes to the entrepreneurship literature in the following ways. Firstly, by focusing on a specific form of entrepreneurship (i.e. sport entrepreneurship) that is a novel area of research in which more research is required (González-Serrano et al., 2019). Secondly, by analysing and comparing the similarities between high-level athletes and business people we focus on social capital, and evaluating their activities with the existing literature. Finally, by explaining how sports capital of high-level athletes can be transfer to entrepreneurial capital, contributing in that way with the career transition of high-level athletes.

This study proceeds as follows. Salient features of the two relevant streams of literature are reviewed and compared. Overall, research on sports management (with emphasis on building a successful career) and entrepreneurship, and their relationship with one another to date, includes: a summary review of sports literature, a summary review of entrepreneurship literature, and the current interface. This leads to a more specific comparison of entrepreneurial and sports processes. It emerges that entrepreneurial process is a key to understanding. Then, a first suggestion about the essential nature of the sports career management process is illustrated. The study concludes with a discussion of the implications of the study for current practice and future research.

## **2 Current interface of sports and entrepreneurship research**

### *2.1 The sports management literature*

The sports management literature encompasses two main streams: (1) psychological development processes and (2) physical development processes. The former stream is mostly predominant and focuses on factors that are important to the athletic development process, such as coaching (Trninić et al., 2009) or multi-dimensional psychological factors (MacNamara et al., 2010). Yet, not much is known about the processes of managing an active sports career. However, the transition process from an active sports career to another is an emerging research field (Vilanova and Puig, 2016). There are intersections between the processes of transition and managing an active career. The transition to retirement needs prior preparation (Ek et al., 2005), which means the transition process starts while doing professional sports (Wylleman et al., 2004) and therefore is a part of managing an active sports career.

Sports management literature suggests a link between peak performance across different careers such as sports, the arts and business (Escamilla-Fajardo et al., 2019). In sports, athletes have learned valuable skills to overcome impediments which will be also

valuable in other circumstances. To increase the success of a career transition, athletes should focus on their sport-related skills. Further, a successful second career needs forward thinking retirement planning (Alfermann and Stambulova, 2007), building up human capital during the sports career (Arthur et al., 1999) and an awareness of thinking about the future (Vilanova and Puig, 2016). In general, current research shows that being a professional athlete has a positive effect on the transition process to a successful second career (Jackson et al., 1998; Conzelmann and Nagel, 2003) and this second career is often an entrepreneurial one (Murphy, 1995).

## *2.2 Sports entrepreneurship*

During recent years, sports entrepreneurship has emerged as a concept in progress within sports management research (Bjärsholm, 2017). Most recently, sports entrepreneurship was defined as “developing new start-ups or ventures that engage with sport” (Ratten, 2018, p.13). A more refined definition of sports entrepreneurship is “the exploitation of opportunities within the sports sector to create change” (Ratten, 2018, p.13). Innovation may be called the driver of sports entrepreneurship (Ratten and Ferreira, 2016). However, the definition of sports entrepreneurship needs a more holistic approach. Hence, sports entrepreneurship can be defined as “the process by which individuals, acting in a sports environment, pursue opportunities without resources currently controlled” (Hammerschmidt et al., 2019, p.4). Entrepreneurships occur in different types and forms in sport such as community-based entrepreneurship, corporate entrepreneurship or social entrepreneurship (Ratten, 2010). Sport has shown to be a rich bases for entrepreneurship to occur (Ratten, 2012). The sport inherent characteristics like ambition, a hands-on mentality and commitment are empowering factors for entrepreneurial activities (Hemme et al., 2017). Areas of tangencies with sports entrepreneurship include, for example, the cognitive and social orientations of sports celebrities and their impact upon the marketplace through endorsements and the potential for using their status in an entrepreneurial way to initiate their own products and entrepreneurial ventures (Hunter, 2009). Further, entrepreneurship is a useful tool to break down complexity of sports management and therefore to increase efficacy (Ball, 2005; Ratten and Ciletti, 2011). A closely aligned area of research is the study of the processes by which sports or athletic teams are managed (Ratten, 2011b). While this area is nascent, it strives to use an entrepreneurial lens to more effectively understand sports management processes (Spilling, 1996; Klyver and Terjesen, 2007).

## *2.3 The entrepreneurship literature*

Although academic discourse acknowledges the importance of entrepreneurial activity, the meaning of the term entrepreneurship suffers from different conceptualisations. A variety of definitions arose from different ways of how to tackle the concept of entrepreneurship (Lowe and Marriott, 2012). Aldrich (2005) highlights four main approaches: (1) the creation of innovative products and markets through transformation of resources (Schumpeter, 1934); (2) the nature of high growth firms (Davidsson and Henrekson, 2002; Davidsson et al., 2006); (3) the emergence of new firms (Gartner, 1985, 1988; Low and MacMillan, 1988); and (4) opportunity pursuit through an alertness to asymmetric information and risk taking (Knight, 1921; Kirzner, 1997; Shane and Venkataraman, 2000). A renewed and growing interest in the phenomenon of

entrepreneurial process resulted in adding a fifth way of how to face entrepreneurship (Gartner, 1985; Steyaert, 2007; Hindle, 2010a; Moroz and Hindle, 2012). Further, a sixth approach of theorising entrepreneurship has emerged. It stresses the vital importance of entrepreneurial context and is implicitly linked to process. For any model of entrepreneurial process to be meaningful, it is vital that the organisational, sociological and environmental studies of context are both discursive and integrative (Ucbasaran et al., 2001; Phan, 2004; Steyaert and Katz, 2004). Entrepreneurship as a process is far more predominant in our society than entrepreneurial conceptualisations might suggest (Hindle, 2010b). Current theories of entrepreneurship are limited on business growth and value creation. However, this approach does not suit the sociological impact of entrepreneurial interaction taking place in society (Steyaert and Katz, 2004). Thus, entrepreneurial process is essentially embedded in a local context in which meaning and value are collectively decided (Audretsch et al., 2002). Hence, this study employs the processual-perspective definition of entrepreneurship from Hindle (2010a): “Entrepreneurship is the process of evaluating, committing to and achieving, under contextual constraints, the creation of new value from new knowledge for the benefit of defined stakeholders” (p.100). This recognises that new venturing is only one of a huge range of activities that can qualify as entrepreneurial.

#### 2.4 *The current state of the interface*

The link between creating, developing and managing a sporting career and the entrepreneurial process is scarcely studied. Goxe and Viala (2010) have provided a recent approach to tackle this underemphasised field of research by focusing on sports capital vis-à-vis entrepreneurial *capital*. Social capital is associated with resources that enhance performance (Bosma et al., 2004) and it is necessary to break down the constructs of entrepreneurial and sports capital to determine exactly how they are defined, measured and related.

#### 2.5 *Entrepreneurial capital*

Social capital is an emerging conceptual attractor for management and entrepreneurship scholars (Adler and Kwon, 2002; Davidsson and Honig, 2003). As observed in Fulkerson and Thompson (2008), the paradigm of social capital developed by adhering to one of the two overarching categories (1) resource social capital and (2) normative social capital. Regarding recent years, the theorisation tends to lean towards the direction of normative social capital, which empathises on norms, values, trust and horizontal networks. In contrast, the resource perspective refers to relationships between individuals in groups and networks. An associated term in the literature and a subdomain of social capital, entrepreneurial capital is defined as an extension of intellectual (human) capital specific to the domain of new venture creation (Erikson, 2002). Entrepreneurial activity is in general highly affected by the networking attributes. Both the normative and the resource perspective of social capital are interacting when creating networks and therefore shaping entrepreneurial capital (Foley and O’Connor, 2013).

## 2.6 *Sports capital*

The treatment of sports capital in athletic performance literature is primarily drawn from psychological studies. Viala and Goxe (2010) break down the term into two main categories: (1) individual traits, personality and behaviour patterns and (2) the social context of sports performance. Viala and Goxe (2010) suggest it is the combination of an athlete's personality and social interaction that fosters performance. In this case, social interaction relates to a context of excellence and includes factors like the effects of good coaches, other skilled athletes, or a supportive family. Studies in the area of personality traits demonstrate that self-selection biases within the upper levels of competitive athletes provide a much more homogenous set of traits than lower levels (Silva and Weinberg, 1984). Process-based studies tended to show two different contextual arrangements that foster higher performance in athletes: (1) emotional support from parents, coaches and peers leading to more motivation (Keegan et al., 2009) and (2) the presence of other champion athletes, mentors and the athlete's own notions on performance (Butler and Hardy, 1992; Pensgaard and Roberts, 2002; Green and Brock, 2005).

## 2.7 *A currently instructive comparison*

In general, it is observable that one form of social capital can be converted into another (Bourdieu, 1986). The particular ability to convert sports capital into entrepreneurial capital has been observed by several researchers in both the sports and entrepreneurship literatures (Terjesen, 2008; Ratten, 2010; Light and Kirk, 2001). As stated in Fulkerson and Thompson (2008, p.540):

Professional athletes can convert symbolic capital into economic capital by way of corporate endorsements, or they may convert symbolic into social capital when they use their celebrity to persuade someone to hire a relative for a job.

Sports capital can be translated into success in other associated areas such as facilitating community development through empowerment, sustainable development and social change (Lawson, 2005). Hence, converting sports capital into entrepreneurial capital seems to be a promising approach to link the process of managing a sports career and the process of entrepreneurship. However, sports and entrepreneurial capital are fully articulated in the outcome of a process. This leads to the suggestion that it is a more purposeful approach to examine the sources of the processes rather than the subsequent outcomes. As a result, a more detailed look on the underlying components influencing entrepreneurial process is necessary in order to break down complexity and identify key variables.

## 2.8 *Comparing entrepreneurial and sports process*

### 2.8.1 *Entrepreneurial process*

The languages of change, action and novelty are hallmarks of a process orientation (Moroz and Hindle, 2012). Events are framed by terms like flow, creation and 'becoming' (Van de Ven and Poole, 1990; Aldrich and Martinez, 2001; Steyaert, 2007). This perspective is argued to comport well with the study of entrepreneurship, which is fundamentally an *action-based* phenomenon that involves a highly interrelated set of



creative, strategic and organising processes (Bygrave, 2009). It differs from an 'entitive' worldview where an epistemological approach might be effectively aligned with atomistic snapshots of the world to allow for the study of 'things' (Thompson, 2011).

There has been renewed interest in the phenomenon of entrepreneurial process (Gartner, 1985; Steyaert, 2007; Hindle, 2010a; Moroz and Hindle, 2012). Moroz and Hindle (2012) examined the extant literature and provided evaluation of the 32 extant models of entrepreneurial process. Hindle (2010a) then harmonised the discord into a highly generic model of entrepreneurial process based on a key, philosophical question concerning the nature of the entrepreneurship research field. Due to the processes of academic publishing, the prequel work of Moroz and Hindle (2012) was published later than the subsequent paper of Hindle (2010a).

*What is both generic and distinct about entrepreneurship as a process? This is the 'double-barreled' question that Hindle (2007; 2010a) believes may hold the key to resolving many contentious issues about the nature of entrepreneurship as a field of both practice and theory. To determine whether entrepreneurship is genuinely different from any other extant and well-studied phenomenon (thinking particularly of management) this question penetrates many layers of interest, meaning, and approaches to understanding the nature of entrepreneurship by seeking to determine what always happens in every set of activities classifiable as constituting an 'entrepreneurial' process that never happens in any other type of process. Unless what we call 'entrepreneurship' involves a process that has at its core something simultaneously generic and distinct, we are either talking about an eclectic set of activities that have no mutual coherence or a coherently connected set of activities that could just as well be classified with a label other than 'entrepreneurship'. (Moroz and Hindle, 2012, pp.781–782)*

With this question as its principal driver, Moroz and Hindle (2012) examined the set of peer-reviewed entrepreneurial process models. The aim was to discover generic core factors and relationships strongly supported by evidence and/or strongly believed by researchers to be (1) significant to the entrepreneurial process and (2) which one, if any, of these factors is distinct to entrepreneurship. Hindle went on to synthesise and extend this work by producing and testing a harmonised generic model of entrepreneurial process from which the above-mentioned process-based definition of entrepreneurship is derived. In response to the fragmentation demonstrated by Moroz and Hindle (2012), Hindle (2010a) has developed a generic model of entrepreneurial process (MEP) that claims to harmonise much of the discord displayed in extant theory of entrepreneurial process. The model conceptualises the entrepreneurial process as a set of activities that takes the entrepreneur – or group of entrepreneurs – from a starting input of questioning whether an opportunity exists, to an output where some kind of value is actually achieved.

To process from input to output, the model distinguishes between three distinctive but inter-related domains of activity: the strategic, the personal and the tactical. Each domain requires the entrepreneur to utilise some specific skills or competencies. In the strategic domain, the distinctive core is entrepreneurial capacity, and the key activity is some form of *evaluation* of the potential opportunity, and the focal outcome is the development of an opportunity into some kind of a business model. In the personal domain, the distinctive core is psychological capacity, the key activities involve a range of psychologically driven behaviours and the focal outcome is the entrepreneur's personal commitment – or lack of commitment – to actually implement the business model. In the

tactical domain, the distinctive core is managerial capacity, and the key activity is managing the appropriate exploitation activities. These activities are starting or running the business and the focal outcome is the achievement of value.

This study adopts the theoretical position that the entrepreneurial evaluation is at the heart of entrepreneurial process (Hindle, 2010a). The entrepreneurial evaluation is the transformation of a vague idea into a precise agenda, whether this be called a ‘business model’, a ‘venture design’, a ‘new means-ends framework’, or ‘a new value design’ or something else. We will limit the majority of our focus to the first phase of the model, the strategic domain, where evaluation is the key activity. The MEP stresses that the broad generic concept of ‘evaluation’ includes *any* regime whatsoever for assessment of merit, worth and significance, using *any* criteria via *any* set of standards whatsoever. It is vital to stress that, in this perspective, the term ‘evaluation’ should not be confined to the particular kind of formal evaluation associated with ‘causist’ logic (Shane, 2005) as against ‘effectual logic’ (Sarasvathy, 2006) or ‘bricolage’ logic (Baker and Nelson, 2005), although some researchers (Mitchell et al., 2007) do use it in this limited way. Such scholars assume that ‘evaluation’ is always teleological and directed to a given explicit endpoint that uses specific formal, often economic, assumptions and techniques to assess the viability of achieving that end. In contrast, ‘evaluation’ in the MEP model can also embrace heuristic approaches and even unstructured assessment regimes made by some entrepreneurs. In the conception embodied in the MEP model, there are many kinds of assessment regimes, and all – including bricolage, effectuation and causation – can be classified as different *forms* of evaluation.

In a business situation and after a number of iterative cycles in the strategic domain, the result of combined generic and contextual evaluation activities will produce a business model. More generally, it can be classified as a ‘new value design’: a term more suited to non-business forms of entrepreneurship. Indeed, a business model is simply a special case of the larger theoretical concept of ‘new value design’. Returning to the business/new venturing arena, Hindle (2010a) argues that the result after all cycles that the entrepreneur wishes to perform is a business model that answers – to the entrepreneur’s satisfaction – the fundamental question of whether an exploitable opportunity exists or not. Shane (2003) suggests the entrepreneur now believes that they have created a design for “a new means-end framework for recombining resources that the entrepreneur believes [Shane’s emphasis] will yield a profit”(p.18). Thus, at this level of generality, a business model can be defined as an answer to the opportunity existence question wherein the entrepreneur has satisfied herself that she has created a design for how to proceed to implementation of the opportunity. A business model – a design for potentially how to do something feasible – should never be confused with a business plan: a larger schema embracing commitment of people and resources and full detailing of the implementation and management steps needed to achieve, in reality, the potential inherent in the design (Morris et al., 2005; Hindle and Senderovitz, 2010). Thus, entrepreneurial capacity can be seen as the necessary but not sufficient ability to transform new knowledge into new value. Without the capacity there is no possibility. Without commitment and management there is no reality – only possibility.

### 2.8.2 *Sports process*

As framed within this paper, there exists a surprising gap in the sports management literature pertaining to process models aligned with the question: how does one create a

successful athletic career? It is therefore difficult to clearly discern what constitutes the capacities that are necessary and sufficient to move from wanting success in sport to come up with a game plan or strategy for achievement. The study of entrepreneurial process may help those who have not considered entrepreneurship to proceed more confidently along a contextually well identified pathway to new value design. It appears that in sports domain, it is likely that the process for becoming an athlete has been completely overwhelmed by issues of debate such as 'natural athleticism' or the holistic social construction of sports careers as unmanaged life choices through limited pathways. This type of thinking, that entrepreneurs are 'born and not made, is still a point of contention even within the entrepreneurship literature. However, these views are declining due to contrary evidence acquired in the field. In the 1980s, the detection of theory associated with traits and characteristics was questioned, while emphasis on situational factors linked with 'born champions' gave way to theory that focused on the sports capacities of those who had achieved excellence (Goxe and Viala, 2010). As a result, clarity was accomplished as to whether or not sports capacity was a construct that extended to only high-performance athletes. However, this led to further distance between psychological ontologies of cognitive capacities necessary for performance and the situational guided processes required to get to a well-defined goal. Constructs such as 'risk', 'commitment' and 'networks' appear scattered throughout the literature, although there is minimal structural foundation to these factors that can be found to align them with a proper process perspective of how sports capital may assist in the development of athletic careers.

The outcome of the literature review is that no meaningful comparison of entrepreneurial process and the process of managing a personal, professional sporting career can currently be made. Accordingly, current research lacks appropriate and needed emphases on process and capacity.

### 3 Discussion

This paper has proceeded as follows. Salient features of the entirety of research on the process of managing a personal, professional, successful sports career and the process of conducting an entrepreneurial initiative have been articulated and compared. Especially the *capacity* component in each process was emphasised. Our study of the current relationship between both included: a summary review of the sports literature; a summary review of the entrepreneurship literature; and the current state of the interface. This led to a more specific comparison of entrepreneurial and sports process. It emerges that entrepreneurial process is a key and expanding theme in the entrepreneurship literature. The latest stage of theoretical abstraction and formal process modelling is Hindle's harmonised model of entrepreneurial process, which features a succinct articulation of the essential nature of entrepreneurial capacity. In summary, the research in the entrepreneurship field is producing ever-increasing clarity about process and entrepreneurial capacity. In contrast, there is a lack of multi-component approaches concerning the process of developing a sporting career with a special regard to the role of capacity. Hence, a comprehensive comparison is not possible and more research is needed to foster a clear, generic process model of the development of the professional sports career.

### 3.1 Illustrating a model of sporting capacity

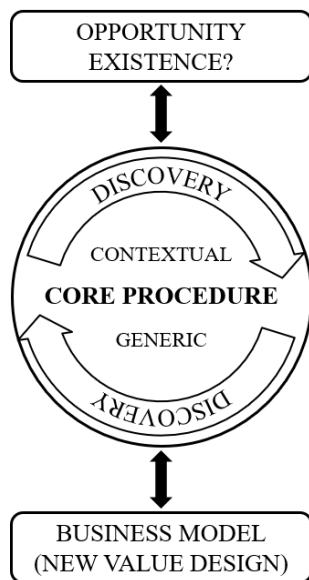
This paper concludes with a first and tentative supposition about the essential nature of the capacity to manage a successful sporting career. We suggest the theoretical model to look like it does in Figure 3. However, there is a lack of structured investigation, well-developed evidence and focused theorising. Any unsystematic guess will remain as good as another. Hence, our suggested illustration is indicative rather than prescriptive. It is clear that more research is needed to form the basis for future testable hypotheses. What we do claim are two things. First, sports management researchers *ought* to turn some attention to developing *un-speculative* (i.e., systematically researched) process and capacity models to describe and explain the essential nature of the sports career management process. Second, the task needs to be performed or all commentary on the utilities and disabilities of a sporting career as the precursor to an entrepreneurial career will remain in the realm of anecdote. All processes whatsoever are going to involve the personal commitment and the tactical management components to turn potential into achievement – see the Hindle MEP model above (Hindle 2010a). We conclude by focusing on the modelling of sports career building capacity. Our guiding question is: What constitutes an athlete's capacity to move from *wanting* success in sport to coming up with a game-plan for achievement of that aspiration?

Figures 1, 2 and 3 are three theoretical models of the essential nature of three types of task-achievement capacity. In the brief illustrative argument that follows, Figure 2, the *general* nature of any human task-performing capacity, will be presented and illustrated with the familiar specific example of Figure 1. That having been done, the suggested illustration of the essential nature of managing a successful, personal sporting career is offered (see Figure 3). It serves to foster the understanding of the relationship between entrepreneurial capital and sports capital from a capacity-perspective. At the heart of this study, the goal is to have a well-researched processual model of the sports career management process.

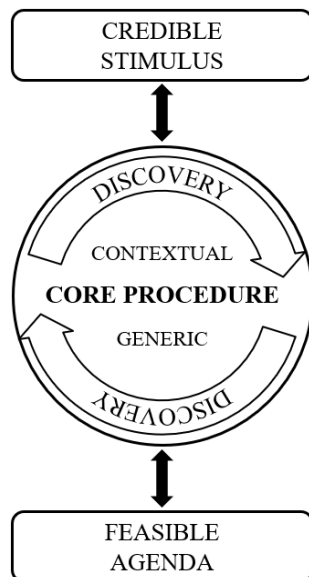
Figure 1 is taken from the harmonised model of entrepreneurial process discussed previously. Figure 1 is a meta-model of the essential nature of any human task-processual capacity. Extrapolating from the entrepreneurship-focused but generalisable argument developed by Hindle (2010a) the generic argument becomes that any human, task-performing capacity consists of three key processual ingredients: (1) a credible stimulus which is processed by; (2) a core procedure to produce; and (3) a feasible agenda. For entrepreneurial performance, the stimulus is the *questioning of whether an opportunity exists*; the core procedure is *evaluation* and the feasible agenda is the production of a new value-creation design. In the commercial setting, new value creation would be a business model. Regarding managing a professional sporting career and based on our prequel examination, we illustrated a capacity-focused model of sports management process (Figure 3). We suggest the stimulus to be a *credible (sporting) aspiration*. For example, suppose a young child has an innate and observable ability to swim faster than all girls of her age group at the local school. It is, *prima facie*, credible for her to want to become an Olympic swimmer one day. The core procedure might be theorised to be *iterative training*. This needs little amplification. Third and last, the feasible agenda here might be *winning potential*. It will take the other two capacities/components of the full process model (i.e. commitment and management) to achieve the desired valuable endpoint. At the baseline, the athlete needs personal sports capacity. Then, commitment to follow-through his ambitious goals and overcome nascent obstacles. With managerial capacity

the athlete then can perform analogously to the execution of an entrepreneurial process or any other human performance process.

**Figure 1** The essential nature of entrepreneurial capacity



**Figure 2** The essential nature of any human task-performing capacity



**Figure 3** The essential nature of the capacity to manage a successful, personal sporting career



#### 4 Conclusions

Viala and Goxe (2010) are among the first pioneers of systematic, research-based investigation of the relevance of a professional, sporting, first career to the selection, operation and success of a second, entrepreneurial career. They demonstrated that both researchers and practitioners require a different focus to understand the journey from the podium to a successful venture. Both could benefit significantly from taking a processual perspective and, from evidence analysis and theory building, postulating the essential nature of the capacity to manage that first career in the form of a process model.

In terms of policy implications, policy makers can employ the processual perspective, based on human capacities, as a guide to more effectively manage athlete careers. The baseline of the process is the sporting capacity. Credible aspiration, the discovery process (iterative training) and therefore the winning potential will determine the sporting capacity. Furthermore, in terms of managerial implications, the increased understanding of the capacity-based conceptualisation of the process of sport and entrepreneurship will assist managers of sporting careers to derive theoretical implications for analysing or developing sporting capacity.

In terms of future research opportunities whether the challenge laid down in this study will have future influence on the direction of sports management research is yet to be determined. However, the researchers will be embarking on an agenda to replace our formative, illustrative, broad supposition with a more refined evidenced-based model. A well-defined and generic model is the fundamental basis for understanding the vital relationship between the sporting and entrepreneurial process. There is certainly a requirement for further research exploring the nexus of sport and the entrepreneurial process.

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## Notes

- 1 The logical order of this matched pair of studies is (1) 'Entrepreneurship as a process: Toward harmonizing multiple perspectives' (scheduled to be published in the journal *Entrepreneurship Theory and Practice*, in 2012). This 'prequel' critiques the discord among the 32 extant models of entrepreneurial process found in the literature prior to Hindle's 'sequel', which is entitled 'Skillful dreaming: Testing a general model of entrepreneurial process with a specific narrative of venture creation' (published in a ground-breaking book edited by renowned entrepreneurship scholar, William B. Gartner in late 2010). The sequel seeks to bring harmony to the prior discord in the form of universal model of entrepreneurial process, which embraces the best features of all its precursors, eliminates their worst features and adds new features. It is designed as a parsimonious generic process model capable of acting as a theoretical and analytical framework for focused research.
- 2 All translations from French sources have been performed by Author A and Author B with a view to fluent transfer of complex ideas rather than stodgy, literal translation, word for word.



## **Publication III**

Hammerschmidt, J., Eggers, F., Kraus, S., Jones, P., & Filser, M.  
**Entrepreneurial orientation in sports entrepreneurship – A mixed methods  
analysis of professional soccer clubs in the German-speaking countries**

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# Entrepreneurial orientation in sports entrepreneurship - a mixed methods analysis of professional soccer clubs in the German-speaking countries

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## Abstract

In recent years, sports entrepreneurship has emerged as a promising discipline in the field of sports management research. However, the research field is still fragmented. This study gives an overview of sports entrepreneurship and coopetition research and is the first work analyzing EO and performance in professional sports. First, quantitative results about EO, organizational performance and coopetition of 22 professional soccer clubs were obtained. Following the mixed method approach, the data was then extended by qualitative expert interviews. Entrepreneurial orientation had a significant positive relationship with both financial and sporting performance of professional soccer clubs in German-speaking countries during the 2017/18 season. We suggest coopetition as a promising strategy for professional soccer clubs to succeed. Hence, our study fosters the concept of sports entrepreneurship and offers evidence that entrepreneurial orientation is a well-suited managerial approach to enhance organizational performance in professional soccer.

**Keywords** Sports entrepreneurship · Entrepreneurial orientation · Coopetition · Professional soccer

## Introduction

Sports entrepreneurship has received increased attention as a promising conceptual interface between entrepreneurship and sports management research. The sports industry represents a large and growing element of the global economy (Frisby 2005). Some sports organizations transformed from non-

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profit sports clubs to serious sports enterprises with professional management structures. Research suggests entrepreneurial characteristics to be an integral part of sports management and a critical force behind the success and welfare of sport businesses (Ball 2005; Berrett et al. 1993). Nevertheless, the actual effects of entrepreneurial activity in the field of sports remain an unsolved puzzle.

Sports entrepreneurship is not specialized on a distinctive sector of sports, though the sector of professional sports seems to be the most likely area for entrepreneurial activity to occur (Ratten 2012; Santomier 2002; Trequattrini et al. 2016). Further, research highlighting evidence of a positive relationship between entrepreneurial orientation (EO) and business performance (Lumpkin and Dess 1996; Wiklund and Shepherd 2005). This is in line with the finding that EO can be advantageous for small-to-medium sized enterprises (SMEs) (Kraus et al. 2012), given that the sports sector is populated by SMEs (Moore and Levermore 2012). Professional soccer clubs can be closely compared to archetypal SMEs in terms of number of employees, annual turnover and characteristics (Moore and Levermore 2012).

The aim of this study is to quantify theoretical evidence of sports entrepreneurship research. This will be the first work addressing the relationship between EO and performance in the field of sports. Soccer is the most popular sport in the world, professional soccer clubs can be closely compared to SMEs and professional sport is highly entrepreneurial. Hence, we examine the relationship between EO and organizational performance of professional soccer organizations and thereby focus on clubs competing in German-speaking countries.

Although the sports market is hostile and competitive, it can be proposed that a collaborative strategy can enhance the business performance of the organizations involved (Dyer et al. 2001; Zaheer et al. 1998). Further, cooptation (cooperation with competitors) can be advantageous for SMEs to overcome liabilities of smallness or newness (Morris et al. 2007). Cooptation is generally linked to innovation (Gast et al. 2015) and may strengthen the effects of EO. Hence, the research question is twofold: What is the relationship between EO and organizational performance in professional soccer clubs and how cooptation relates to each of them?

First, there is a need to clarify the fuzzy concept of sports entrepreneurship and present current conceptual work in the field of sports entrepreneurship. With illustrating a scope of current literature, definitional issues can be tackled. EO seems to enhance sports businesses performance and it is apparent that the relationship should be examined. In addition, cooptation seems to be a promising managerial approach in the sports sector. Addressing these problems requires an analysis of EO, organizational performance and cooptation in the field of professional soccer clubs. However, quantitative data can only offer partial insights and may be affected by a small population size. Based on the preliminary results, expert interviews will be conducted to provide a more nuanced picture of the underlying relationships and to identify key variables (Johnson and Onwuegbuzie 2004). The results focus on the entire soccer season of 2017/18.

## Theoretical framework

### Entrepreneurship in sports management

Hart et al. (1995) (p.86) suggest entrepreneurship is “the process by which individuals pursue opportunities without regard to alienable resources they currently control.” EO is a company-wide mindset and captures “processes, practices and decision-making activities that lead to new entry” (Lumpkin and Dess 1996) (p.136). EO is commonly assessed through the three dimensions, innovativeness, proactiveness and risk-taking (Miller 1983). Firms competing in business environments in which future revenue streams are uncertain can profit from the effects of entrepreneurship, EO and entrepreneurial activities (Wiklund and Shepherd 2005).

Hence, the concept of entrepreneurship tends to be a capable approach to support sports management with its probably most known characteristic: the uncertainty of (sporting) outcome (Peel and Thomas 1992). Sports entrepreneurship is a mean to tackle managerial challenges of the uncertainty of outcome by improving the ability to handle the fast-changing demands of the sports environment. However, there is a lack of consensus in existing literature conceptualising sports entrepreneurship (Bjärsholm 2017).

The field of sports incorporates a number of different perspectives from different stakeholders as for example fans, sponsors, communities, athletes, coaches or regions. Sports is a rich base for entrepreneurial activities. Sports inherent characteristics like commitment, ambition and a hands-on mentality are supporting circumstances for EO to occur (Hemme et al. 2017). Entrepreneurial activities emerge in diverse sports management areas and in different, dynamic types of entrepreneurship such as community-based entrepreneurship, corporate entrepreneurship or social entrepreneurship (Ratten 2010). Examining sports management through the lens of entrepreneurship is helpful to understand different stakeholder perspectives and to break down its complexity. Thus, entrepreneurship has the power to increase economic efficiencies in sports management (Ball 2005; Ratten and Ciletti 2011). Legg and Gough (2012) mentioned the necessity of an entrepreneurial mindset to persist in the competitive and hostile professional sports market. It is essential to pursue an entrepreneurial strategy to become a competitive and financially successful professional sports club.

The sports industry is highly populated by SMEs. In terms of number of employees, annual turnover and characteristics, professional soccer clubs can be closely compared to archetypal SMEs (Moore and Levermore 2012). Small businesses with entrepreneurial spirit can operate more effectively than in competitive markets (Covin and Slevin 1989) and EO can be a sufficient condition for success of small businesses in the sports sector (Núñez-Pomar et al. 2016). However, the sports-related mission statement of professional clubs leads to an organizational focus on sporting success. As a result, sports performance attracts more important than financial performance which distinguishes sports organizations from other small or medium-sized firms (Garcia-del-Barrio and Szymanski 2009; Ratten 2012).

In the last four decades, the number of publications addressing the interface of entrepreneurship and sports management has experienced a steady growth. The leading scholar in the field is Vanessa Ratten by number of outputs and citations. An overview of Ratten defining sports entrepreneurship can be found in the following table (Table 1).



**Table 1** Definitions of sports entrepreneurship

Authors	Definition
Ratten (2010)	"[...] is a sports-related organization acting innovatively in a business context" (p. 559).
Ratten (2011a)	"[...] is therefore the result of a process in which an organisation involved in sport acts entrepreneurially" (p. 315). "[...] is the process of creating value. This value includes the innovativeness, proactive nature and level of risk taking inherent in the activity" (p. 316).
Ratten (2011b)	"[...] any form of enterprise or entrepreneurship in a sport context" (p. 60). "[...] when an entity in sport acts collectively to respond to an opportunity to create value" (p. 60).
Ratten (2012)	"[...] is the entrepreneurship leading to the establishment of new sports-related enterprises and the continued innovation of existing sports organizations" (p. 2).
Ratten (2011b)	"[...] is described as the mindset of people or organizations actively engaged in the pursuit of new opportunities in the sports-context" (p. 66). "[...] is any innovative activity that has a sports objective" (p. 67). "[...] is the set of values that influence an organizations or individuals propensity to create and develop innovative activities" (p. 67).
Ratten and Ferreira (2016)	"[...] is innovative, risk-taking and proactive behaviour in the sports-related industry" (p. 244).
Ratten (2018)	"[...] is defined as developing new start-ups or ventures that engage with sport" (p. 13). "A more refined definition [...] is the exploitation of opportunities within the sports sector to create change" (p. 13).

Looking at the definitions, the focus of Ratten's conceptualizations is on innovativeness and the exploitation of opportunities. That is a more integrated approach with regard to all three EO sub-dimensions that also focuses on scarce resources and the entrepreneurial process. Hence, sports entrepreneurship can be defined as the process by which individuals, acting in a sports environment, pursue opportunities without resources currently controlled.

### Assessing performance of soccer clubs

According to Garcia-del-Barrio and Szymanski (2009), European soccer clubs finance players by accepting financial losses/debts to enhance league performance. Soccer clubs can usually be considered sporting success maximizers instead of profit maximizers. However, measuring financial performance is important for managers for strategic decision making and investors and other stakeholders to assess management performance. It is also a commonly used indicator to compare overall performance with competitors (Carlsson-Wall et al. 2016). Hamil and Walters (2010) examined the financial performance of the English Premier League since its inception in 1992. Even though there are increases in available financial resources, clubs are incurring losses and increasing levels of debt. In contrast, Dimitropoulos and Limperopoulos (2014) researched 20 Greek soccer clubs and showed that the investment in player salaries positively correlates with athletic and financial performance. In addition, Szymanski and Smith (2010) as well as Frick and Simmons (2008) found that investments in player contracts can enhance athletic performance. Hall et al. (2002) analyzed English

soccer club performance over a time span of 26 years and revealed that an increase of investment in player talent resulted in an increase of athletic performance. Pinnuck and Potter (2006) reinforce the investment theory but also suggest that recruiting capable staff, therefore the efficient use of resources, is a factor to increase financial and athletic performance. Tesone et al. (2004) indicate that the attraction, retention and development of human capital is a mean to overcome barriers of resource allocation to achieve sports organizational success. Millar and Stevens (2012) showed that training improved the learning ability and individual performance of sports managers, resulting in an increased sports organization's overall performance.

Hence, there are two paradigms used to assess performance of sports organizations: financial performance and sporting or athletic performance. Given the overall positive relationship between EO and business performance and the finding that EO plays an important role in sports organizations we propose the following:

**Proposition 1:** There is a positive relationship of EO and financial performance of professional soccer clubs.

**Proposition 2:** There is a positive relationship of EO and sporting performance of professional soccer clubs.

### **Linking entrepreneurial competencies to coopetition**

Due to their size, SMEs suffer from a lack of relationships, poor market presence and limited access to resources (Morris et al. 2007). Professional sports clubs, which can be classified as SMEs (Moore and Levermore 2012), are above all characterized by their limited access to resources. Professional soccer clubs generally reinvest profits, or even accept financial losses or debts, by financing new players and player salaries (Garcia-del-Barrio and Szymanski 2009). Sports clubs are focusing on directly maximizing sports performance rather than organizational related investments and hence they struggle to cumulate resources. Coopetition, a “strategy that combines cooperation and competition between firms” (Morris et al. 2007, p. 35), can be advantageous for SMEs and hence professional soccer clubs. By cooperating with their competitors, organizations can achieve and accumulate knowledge, skills and missing resources. With access to unique assets, sports clubs can innovatively distinguish themselves in the market. Thus, both SME alliance partners can increase their national and international market shares, especially when they have a strong EO (Brouthers et al. 2015).

In general, there is a positive relationship between coopetition and innovation (Gast et al. 2015). An alliance strategy provides a solution-related approach to gain competencies (Dyer et al. 2001; Zaheer et al. 1998) and EO is a competence that creates opportunities, which are supportive for small organizations to succeed in the dynamic sports market (Jones et al. 2014; Legg and Gough 2012). As a result, we suggest coopetition to be positively linked to entrepreneurial competencies and consequently hypothesize:

**Proposition 3:** There is a positive relationship between EO and coopetition that, in turn, positively relates to financial and sporting performance.

## Methodology

### Research design and sample

Mixed methods research is an emphasized approach in present entrepreneurship research (Coviello and Jones 2004; Hoang and Antoncic 2003; Molina-Azorin et al. 2012; Ritchie and Lam 2006). Given the nature of our research question and based on the small number of professional soccer clubs in German speaking countries, we chose a sequential triangulation with qualitative and quantitative data collection instruments (Hussein 2009). That is, strengths of qualitative research can be added to the quantitative approach in order to overcome weaknesses of the quantitative research model (Johnson and Onwuegbuzie 2004). The subsequent analysis is a semi-structured expert interview which is useful if research objectives are focusing on understanding experiences, opinions, attitudes, values and processes (Rowley 2012). The aim is not only to analyze an individual expression of a universal structure but rather to detect an overall consensus among the participating experts. Therefore, experts will be treated twofold: as individual participant, presenting their personal view and as representative for expertise in the processes of professional soccer. This research design allows us to further foster the quantitative results and then to identify key variables (Johnson and Onwuegbuzie 2004; Molina-Azorin et al. 2012).

In the quantitative part of the study, we used a *key informant approach* and sent an email survey to top decision makers (Kumar et al. 1993). In this case, the questionnaire was sent to executives of professional soccer clubs in Germany (League 1–4), Austria (League 1–3) and Switzerland (League 1–3). German-speaking countries were chosen because of their soccer-related culture and the low language barriers between researcher and participants regarding the expert interviews. Since some clubs have second teams playing in a professional league, the actual population size of professional clubs decreases by the number of second teams. In sum, the questionnaire was sent to key individuals of 222 professional soccer clubs. Data was collected towards the end of the 2017/18 season, which reflected the organizational development and performance throughout the season.

Overall, 30 executives participated and 22 questionnaires were fully filled out which results in a response rate of 10.1%. Most of the responding teams (9) were playing in their domestic second league. However, 8 of the participating professional soccer clubs played in their domestic first league. The clubs organization size was categorized according to their number of employees from >10 (5), 10–49 (6), 50–250 (7), to >250 (4), following the definition of the European Union Commission (2003). Nearly 87% of the respondents were executives of a business unit or the CEO, 9% were board members and one participant was a team leader in the sporting department. Results of this quantitative stage were revealed through correlation analysis. An overview of the participants can be found in Table 2. Three clubs chose to remain anonymous.

**Table 2** Participants of the quantitative and qualitative parts of the study

		<i>Quan.</i>	<i>Qual.</i>	<i>League level</i>	<i>Firm size</i>
Germany					
1.	FC Schalke 04	x		1	> 250
2.	1. FSV Mainz 05	x		1	> 250
3.	SV Werder Bremen	x	x	1	50–250
4.	<i>Anonymised</i>	x		1	50–250
5.	Eintracht Braunschweig	x		2	> 250
6.	Fortuna Düsseldorf	x		2	50–250
7.	1. FC Union Berlin	x		2	50–250
8.	DSC Arminia Bielefeld	x		2	50–250
9.	MSV Duisburg	x	x	2	50–250
10.	Fortuna Köln	x		3	10–49
11.	FC Wegberg-Beeck 1920	x		4	10–49
12.	FC Viktoria 1889 Berlin	x		4	< 10
Austria					
13.	SCR Altach	x	x	1	< 10
14.	FC Blau Weiß Linz	x	x	2	10–49
15.	KSV 1919	x		2	10–49
16.	<i>Anonymised</i>	x		2	< 10
17.	Wiener Neustadt	x		2	< 10
18.	ASK BSC Bruck	x		3	10–49
Switzerland and Liechtenstein					
19.	FC Basel 1893	x	x	1	> 250
20.	FC Luzern	x		1	50–250
21.	<i>Anonymised</i>	x		1	10–49
22.	FC Kickers Luzern	x		4	< 10

Quan./Qual. = participants of the quantitative/qualitative part; League level “1” represents the domestic highest league; Firm size = number of employees

Subsequently, a qualitative analysis was conducted to introduce subjective experiences to verify the validity of our previous results. By means of a semi-structured expert interview, the participants of the quantitative study were confronted with the preliminary results of the data assessment. To have both, a general and an individual classification of the preliminary results, the experts were asked to first state their opinion as soccer experts in general and second their personal opinion. In total, 16 of 22 participants of the initial sample left their email contact and 5 of them took part in the interview. Further expertise was included by adding external soccer experts (2).

The expert interviews lasted from 10 to 15 min each and were conducted over the phone. With the help of the expert interviews, information about common practices in the soccer industry, specifications of EO in sports management and visionary prospects regarding the economic future of soccer were collected.

## Measures

### Entrepreneurial orientation

Most EO scales used in the literature are based on the three item approach by Miller (1983) and Covin and Slevin (1989). Covin et al. (2006) argue that EO captures the shared variance of innovativeness, proactiveness, and risk-taking, that is, the three scale items together constitute EO. In contrast, Lumpkin and Dess (1996) propose a five-item scale (autonomy, innovativeness, risk taking, proactiveness and competitive aggressiveness) and argue that the five scale dimensions can exist independent from each other. This approach derives from the intention to examine the effects of the sub-dimensions on firm performance independently. Hughes and Morgan (2007) used the five EO sub-dimensions proposed by Lumpkin and Dess (1996) and constructed a scale that avoids terms such as “products”, “services” and “market.” These terms may be appropriate for a competitive, free economic environment but they do not fit to the specifics of the sports management discipline. In this study, we base the EO scale on Hughes and Morgan (2007) and only focus on the three sub-dimensions proposed by Miller (1983) and Covin and Slevin (1989). Thus, we focus on innovativeness, proactiveness and risk-taking, measure them in a way that is appropriate for soccer organizations and treat these dimensions independent from each other. EO was measured on a five point Likert type scale from 1 (“strongly disagree”) to 5 (“strongly agree”).

### Coopetition

Current research was analyzed to detect appropriate items for measuring coopetition and different conceptualizations were found. Based on these findings, a 7-item scale was constructed (CO1-CO7). The item CO1 is based on the findings of Jap (2000) and examines the investment in the exploitation of cooperation partners which is a basic action for cooperation. An investment underlines the commitment and has a signaling effect for a long-term cooperation (Kale et al. 2002; Zaheer et al. 1998). CO2 measures the investment in fostering cooperation relations. Mutual care and dedication for a proper relationship to a partner is a specific value for future development of both alliance partners (Kale et al. 2002). Ostgaard and Birley (1994) propose an item to measure the density of the cooperation network (CO3) as a variable for proper coopetition. The density of the cooperation network indicates the relation of the size of their network of cooperation and the extent to which they know each other. Bengtsson et al. (2010) indicates coopetition as a phenomenon that arises when two parties, who are formally competing with each other, forge a strategic alliance in order to cooperate and therefore builds the basis for scale item CO4. In reference to Bouncken and Fredrich (2012), we measure to what extent a clear goal for the coopetition activities was communicated (CO5). A strategy with clear goals can further enhance the positive effect of coopetition due to a greater commitment of both alliance partnership towards the inter-firm cooperation. CO5 measures structure to manage coopetition. A professional alliance management increases the positive development of competencies as for example partner selection, partner management or knowledge flows (Bouncken and Fredrich 2012) and has a positive influence on coopetition activities (Dyer et al. 2001). Learning capabilities can reduce the dependence on the cooperation partner by being more efficient in absorbing knowledge from the collaborative counterpart (Fang and Zou 2010). Kale et al. (2002) assumes that there is a need to spread the accumulated knowledge of a

collaborative relationship within the firm to serious profit from the cooperation and therefore build an item to measure internal knowledge sharing emanating from the cooperation (CO7). To represent the examined content, German sentences were constructed with the premise to measure the purpose in an appropriate way. Each item is rated on a 5 point Likert type scale with a response range from 1 (“strongly disagree”) to 5 (“strongly agree”).

## Performance

In this study, business performance is evaluated through four indicators: growth of sales (Wiklund and Shepherd 2005), growth of profit (Chen et al. 2007; Rigtering et al. 2014), growth of employees (Wiklund and Shepherd 2005) and growth of the value of the professional team. These indicators are commonly used to assess business performance of soccer teams (Carlsson-Wall et al. 2016; Dimitropoulos and Limperopoulos 2014; Hamil and Walters 2010). As there are no archival performance numbers available for the season 2017/18, perceived financial performance indicators are used. Although perceived financial indicators can be unfavorable because they are dependent on the CEOs ability to indicate financial performance, subjective measures are widely accepted in research and typically asserted as appropriate to objective measurement methods (Wall et al. 2004). Participants were asked to evaluate their performance in comparison with their competition. Scale items for business performance were displayed on a Likert-type scale with response options from 1 (“strongly disagree”) to 5 (“strongly agree”).

Szymanski and Smith (2010) and Carlsson-Wall et al. (2016) highlight that the league position can be considered a practical and commonly used sporting performance indicator. Dimitropoulos and Limperopoulos (2014) uses the number of wins achieved over a season as a variable in order to capture athletic success of soccer clubs. However, the league models differ in programme, number of teams and promotion/relegation rules. Therefore, an international or national equation is unfeasible due to the varying league standards. Pieper et al. (2014) used expected points as an indicator for athletic performance, which are estimated by using official betting odds for match outcomes. The betting odds were converted into probability ratios and subtracted by the bookmakers’ margin. These probability ratios were then multiplied with the expected number of points of the particular outcome of the match and added up:

$$p_e = \left( p_w \times \frac{\frac{1}{x_w}}{\frac{1}{x_w} + \frac{1}{x_d} + \frac{1}{x_l}} \right) + \left( p_d \times \frac{\frac{1}{x_d}}{\frac{1}{x_w} + \frac{1}{x_d} + \frac{1}{x_l}} \right)$$

adjusted

$$p_e = \frac{p_w}{x_w} \times \left( \frac{1}{x_w} + \frac{1}{x_d} + \frac{1}{x_l} \right) + \frac{p_d}{x_d} \times \left( \frac{1}{x_w} + \frac{1}{x_d} + \frac{1}{x_l} \right)$$

where

- $p_e$  estimated points
- $p_{w, d}$  points depending for win or draw
- $x_{w, d, l}$  betting odd for win, draw or loss

Professional bookmakers' betting odds provide evidence based assumptions of match outcomes (Forrest et al. 2005; Peel and Thomas 1992; Sauer 1998). Presumed that posted betting odds for wins, draws and losses are efficient and include all relevant information, they are, subtracted by the bookmakers' margin, an unbiased prediction of the match outcome. Indeed, Peel and Thomas (1992) are instrumentalizing betting odds as a vehicle in order to determine the sports specific uncertainty of outcome suggesting that sporting performance based on betting odds is more reliable than a short term examination of match points. To match up with the time horizon of the variables EO and financial performance, sporting performance will capture the athletic success of the season 2017/18 as a whole. Betting odds were received from the archive of [wettportal.com](http://wettportal.com), an internet platform which provides extensive retrospective betting data as well as betting odds averages of all betting odds available from more than 50 different bookmakers. Betting odds are slightly varying between different bookmakers, therefore we are confident that the average of betting odds gathered from the biggest bookmakers is even more precise and reliable than single betting odds from one certain bookmaker. As mentioned above, league models and constellations vary in the inter- and intra-disciplinary perspective. Consequently, estimated points were accumulated and divided by the total number of games in the season 2017/18. The result is a refined approach of Pieper et al. (2014) with the standardized indicator "estimated points per game" for sporting performance, which will be used as measurement:

$$p_{eg} = \frac{1}{n} \sum_{k=1}^n \frac{p_w}{x_{w_k}} \times \left( \frac{1}{x_{w_k}} + \frac{1}{x_{d_k}} + \frac{1}{x_{l_k}} \right) + \frac{p_d}{x_{d_k}} \times \left( \frac{1}{x_{w_k}} + \frac{1}{x_{d_k}} + \frac{1}{x_{l_k}} \right)$$

where

$p_{eg}$	standardized estimated points per game
$p_{w,d}$	points for win or draw
$x_{w_k,d_k}$	betting odd for win, draw or loss for the particular match day
$n$	number of matches in one season
$k$	match day

## Results

### Correlation analysis

Cronbach's alphas for most of the measured scale items show acceptable values (see Table 3). However, the scale *risk-taking* had an overall non-adequate Cronbach alpha value of .61. Following Tavakol and Dennick (2011), items with low inter-correlations should be deleted. *Risk-taking* item EO9 was eliminated resulting in an alpha value of .70. For the EO scale, the alpha test resulted in a relative low value of 0.69. The low value can be a result of the relative short scale size. The elimination of the item risk-taking would increase the alpha value for the EO scale. However, risk-taking was retained as a part of the EO scale and the value of 0.69 was accepted.

**Table 3** Means, standard deviations, Pearson correlations and Cronbach's alphas

	M	SD	1	1.1	1.2	1.3	2	3	4
1. EO	3.52	.53	(.69)						
1.1 Innovativeness	3.67	.72		(.81)					
1.2 Proactiveness	3.21	.61		.59**	(.74)				
1.3 Risk-taking	3.68	.55		.56**	.52*	(.70)			
2. Coopetition	3.12	.62	.53*	.28	.50*	.59**	(.81)		
3. Financial performance	3.10	.86	.55**	.59**	.39	.37	.34	(.87)	
4. Sporting performance	1.29	.24	.52*	.51*	.35	.46*	-.66	.27	-

Financial performance,  $N=22$ ; Sporting performance,  $N=20$ ; Cronbach's alpha are shown in the diagonal; \* $p < .05$ , \*\* $p < .01$

Data were analyzed and assessed using Pearson correlations. Sample size for measuring financial performance was  $N=22$ . Two participants were playing in leagues where no archival data was available for betting odds. Therefore, sample size for sporting performance was  $N=20$ . A general overview of results is provided in Table 3.

Emerging from the present data analysis, EO shows a significant positive relationship with financial and sporting performance. Regarding the sub-dimensions, innovativeness demonstrated a significant positive correlation to both financial and sporting performance, suggesting that clubs with a highly innovative attitude are good performers. No correlation was found for proactiveness and performance measures. Risk-taking correlates to sporting performance, yet there was no correlation to financial performance. As expected, the results show a significant relationship between coopetition and EO. Though, coopetition is not significantly related to neither sporting nor financial performance.

### From an expert's perspective

Our quantitative results suggest a positive relationship between EO and financial and sporting performance of soccer organizations. All of the experts consented to the preliminary result. Some of the respondents outlined the importance of viewing the construct as an overall entity that is as a combination of its three sub-dimensions. These opinions are underlying the findings of George (2011), who suggested to view the construct of EO as a whole and that the three sub-dimensions are co-varying. For example, a participant suggests:

In my opinion, it's important to cover all of the three pillars in a reasonable way. Innovation, proactiveness and risk-taking, for me, the combination is just right and it's about a wholesome blend: Innovation and proactiveness is in any case part of success. But, some risk-taking is also always inherent.

Innovation was the only sub-dimension that showed a significant positive correlation to both financial and sporting performance. For proactiveness, no correlation with the performance measures was found. Though, an executive reported that his organization



always tries to act innovatively and also proactively. This statement is reinforced by an expert reporting that innovative and proactive behavior is an essential condition for sporting success in the field of professional soccer. We noticed that the executives transmitted a remarkable impression of a proactive mindset which may refer to an overall proactive character of the sports sector in general. However, following the perception of a participant, innovation is a real opportunity to create competitive advantage but also requires effective support. A participating club tries to counter the hostile sports market by means of an innovative sponsoring strategy.

Innovation is the crucial factor. You always have to explore new paths to, for example, create new approaches to increase sales because otherwise it is difficult to maintain being financial healthy, if you are financing yourself, like the FC Basel is doing. I think, financial and sporting success cannot continue without innovation.

Some clubs also reported to participate in open innovation software programmes within the sports business. Further, innovative action was reported to be dependent on the financing structure of the professional soccer club. Organizations financing themselves through their daily business have to be more innovative in order to sustain their competitiveness than clubs being financed by investors or having remarkable higher TV contracts and therefore more available financial resources. Thus the less money, the more innovation is required to maintain competitive. One professional club from the Bundesliga reported a high public pressure when trying new things. Fans, partners or sponsors are expecting success and do not accept failure, which increases barriers for being innovative.

Our quantitative data detected no correlation between risk-taking and financial performance, yet a significant positive relationship to sporting performance. At a first glance, the reaction of the experts was diverse when confronted with the preliminary results.

A manager of a Swiss club mentioned that risk is always present when managing a professional soccer club. For example, acquiring a new player is always connected to a lot of uncertainty, therefore creates risk. From his point of view, it is not possible to be successful, neither from a financial nor athletic perspective, without taking any risk. Other experts are affirming that risk is always present in professional soccer but they do not believe that taking more risk will lead to more success. Hence, the experts suggest balancing the amount of risk-taking due to the uncertainty of outcome.

Risk-taking has to be handled in a healthy way. [...] We are in the lucky situation to have reliable partners [...], hence our risk is of a manageable degree. Regarding our team, the players, the salaries, everything is well calculated. [...] It's part of being a good sports manager to manage the club by means of continuity over several years and to take risks [...]. Of course, there are also outliers, but you should stay in a balance for a continuous development.

Financial performance is an essential factor when calculating risk and may influence the risk-taking behavior of the clubs. For example, clubs supported by investors can take higher risks due to higher financial security. Therefore, it seems to be comprehensible that risk-taking behavior in the professional soccer environment is influenced by available resources. However, risk-taking is a basic part of sports management.

Further, our findings suggested that cooperation does not have a significant positive relationship to organizational performance. Hence, the experts are jointly surprised and rejecting this theory. They suggest cooperation with other clubs as a performance enhancing strategy and therefore improving financial and sporting performance. Although rarely practiced, intense cooperation between clubs within a league may enhance the chance to withstand against third parties in the sports environment. Professional clubs are recently practicing experience exchanges in their national or international club network and assume cooperation to be stimulating for both parties, especially as a small club with an international partner. An interesting approach is cooperation as form of mentoring. An expert reported that sharing his knowledge and therefore getting feedback is a proper mean to develop himself. Another participant states:

If you have a best practice, why not share it with other clubs if therefore soccer and the league as a whole can profit?

In sum, cooperation in professional soccer is a common practice. A CEO reports the mindset of his first league professional soccer club regarding cooperation:

You should not compete in administrative concerns, rather on the pitch.

Some conditions should be considered for a successful partnership. Clubs do have concerns about revealing their core knowledge and experts are recommending to well consider which information is disclosed and shared. In addition, a collaborative partnership has a promising future when both parties represent the same values, suggesting harmony as a basic element for a working cooperation.

Lastly, we presented the results of the relationship between financial and sporting performance to the experts. Current research findings are indicating that investments in players are directly enhancing sporting success (Dimitropoulos and Limperopoulos 2014; Jane et al. 2009; Szymanski and Smith 2010). We asked the participants of the expert interview to comment on the findings and confronted them with a slightly provocative title of Wilkesmann (2017): Does money scores goals? The experts were in great consensus that the investment in the team, and therefore the market value of a team, is a valuable indicator for its performance. However, good financial performance does not imply high investments in the team. A participant added “Money does score goals limitedly.”

Other experts also suggested that the competence of the executing employees is an important moderator of success in the relationship between financial resources and sporting success. These results are in alignment with the findings of Millar and Stevens (2012), Weinberg (2016), Frick and Simmons (2008), Pinnuck and Potter (2006) and Tesone et al. (2004), suggesting a capable staff to be an important factor for athletic performance and success in the field of professional sports.

## Discussion and practical implications

Our results reinforce present entrepreneurship research, where EO has been investigated as a framework with a positive association to firm performance (Kraus et al. 2012;

Wiklund and Shepherd 2005). In this case, EO showed a significant positive correlation to financial and sporting performance of professional soccer clubs. In addition, experts are reinforcing this theory leading us to accept our first and second research proposition. However, when disassembling EO and considering the three sub-dimensions, only innovation correlates significantly with both performance measures. This result is a first step in order to quantify previous assumptions of qualitative research in the field of sports entrepreneurship suggesting innovation as engine of sports entrepreneurship (Ball 2005; Legg and Gough 2012; Ratten and Ferreira 2016). From a neutral perspective, the interview participants made the impression to be highly proactive which may be inherent within sports-related individuals. Risk-taking may play a special role in the context of professional sports due to the sports-related uncertainty of outcome. Match outcomes, and therefore sporting success, are hardly predictable. That is, professional soccer clubs need proper risk calculations. In addition, risk-taking showed a positive significant correlation to sporting performance. The experts are regarding risk as a distinctive part of professional soccer. Still, from a managerial perspective, risk needs to be treated with caution.

In this study, financial performance showed no correlation to sporting performance. However, among sports managers (and fans), it is commonly accepted that investment in players enhances potential for athletic success (Dimitropoulos and Limperopoulos 2014; Frick and Simmons 2008; Szymanski and Smith 2010). Our experts are reinforcing the theory that a team with a high market value, managed by a capable staff, will be successful. In this study, financial performance was measured by self-perceived indicators which do not automatically imply an investment in the team. Hence, we suggest to use the team's market value as a measurement for the relationship between investments and sporting performance.

The quantitative analysis suggests that co-competition does not correlate with organizational performance. However, data surmises that the EO-performance relationship may be mediated by co-competition. Regarding the expert interviews, there is a common consensus that cooperation within the soccer sector can enhance overall league performance. Most of the experts are reporting from positive effects of cooperation with other clubs. Though clubs are recently cooperating, yet there is hardly any official cooperation of clubs on the same level or in the same league. Although there was no correlation found between co-competition and performance, the affirmative statements from the experts lead us to support proposition 3.

## Limitations

Within the examined German-speaking countries are 222 professional soccer clubs, wherein 10% of them took part in our survey. Though such a response rate can be considered as expected for an online survey, the overall sample size of 22 (listwise 20) is small. Financial performance was examined by self-perceived indicators as opposed to objective measures which may be unfavorable because they are dependent on the ability of the executive to rate the financial performance compared to the competition without any biases (Kraus et al. 2012). However, this approach is widely accepted in research (Wall et al. 2004) and there is evidence showing no difference on the EO-performance relationship concerning self-perceived or archival performance measurements (Rauch et al. 2009). Sporting performance is measured by the variable estimated points per

game, which is calculated on the basis of betting odds and though being calculated on all relevant information, bookmakers run the risk to misjudge the rating and therefore do not indicate performance appropriately. To minimize the risk of an individual bookmaker rating outlier, average betting odds of the biggest bookmakers were used.

### Recommendations for future research

Sports entrepreneurship is a commonly accepted term in the research of sport management and therefore appears as universally applicable in sports, although several authors mentioned the diversity and differences of the sports sector (Berrett et al. 1993; Hemme et al. 2017; Ratten and Ciletti 2011). Hemme et al. (2017) states that a fitness entrepreneur shares a variety of similarities with non-sports entrepreneurs. In contrast, Ratten (2012) mentioned the sports entrepreneur differs from other entrepreneurs.

The field of sports entrepreneurship runs the risk to become elusive a diffuse research area. Science is based on the use of well-defined concepts. Ratten being the only researcher defining the concept of sports entrepreneurship opens the field for misinterpretations (Bjärsholm 2017). Further research is required to create new perspectives which can enrich the understanding of how to define sports entrepreneurship.

Although there is broad and commonly accepted theoretical evidence, the empirical effects of EO in the field of sports are still rather unexplored. Hence, the approach of EO seems to be a useful framework to highlight the effects of entrepreneurship in sports management. Further transfer of results from entrepreneurial research covering the occurrence and outcome of EO in sports organizations offers an interesting research topic for future empirical studies.

### Conclusion

The findings of this study reinforce the commonly accepted theory that EO enhances organizational performance, demonstrating that the sports sector can profit from entrepreneurial concepts. The sports market is a very fast-changing, competitive and diverse environment and EO already showed to be a valuable vehicle to meet those demands. Yet, the findings for proactiveness and risk-taking were controversial and more evidence is required in the future. Executives of professional soccer clubs are in consensus that especially innovation is an essential part of the corporate mindset to constantly develop the organization. Innovation seems to assume the leading role as most valuable mean to outperform on the sports market. Although financial performance showed no relationship to sporting performance, we can confirm current research that an investment in the team enhances athletic success (Dimitropoulos and Limperopoulos 2014; Frick and Simmons 2008; Szymanski and Smith 2010). This effect can be strengthened when the investment is managed by capable staff (Millar and Stevens 2012; Pinnuck and Potter 2006; Tesone et al. 2004). Our overall results are leading to the assumption that cooptation is a promising and applicable concept for the special sports sector and may act as a mediator between the EO-performance relationship. A decisive factor for the supportive role of cooptation was the experts' perspective which suggests that even inter-league cooperation may be a useful tool for especially small clubs to bundle available resources and stand up to third parties.

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## **Publication IV**

Ramos, A. S., Hammerschmidt, J., Ribeiro, A. S., Lima, F., & Kraus, S.  
**Rethinking dual careers: Success factors for career transition of professional  
football players and the role of sport entrepreneurship**

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# Rethinking dual careers: success factors for career transition of professional football players and the role of sport entrepreneurship

Rethinking  
dual careers

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## Abstract

**Purpose** – The purpose of this longitudinal study is to examine the dual career and entrepreneurial experiences of professional football players and their influence on the career transition process to entrepreneurship or employment.

**Design/methodology/approach** – The study examined a Portuguese employer–employee data set from 1991 to 2017 using the logit model, a binary choice regression model that allows predicting the probabilities of two possible qualitative and binary outcomes.

**Findings** – Entrepreneurial experience is the key driver for retired football players to pursue entrepreneurship. Having a dual career and working during the athletic career leads to higher chances of continuing in the labor market as an employee. Higher education levels did not significantly influence the decision to pursue a second career but having secondary education increases the chances of continuing as an entrepreneur.

**Research limitations/implications** – First, the study aims to shed light on success factors in career transition of professional football players who engage in a dual career. Second, the authors introduce sport entrepreneurship as a possible activity alongside an athletic career.

**Practical implications** – Athletes can benefit from the experience they gain during a dual career in the process of career transition. Working in the final year of an athletic career represents a promising strategy to gain work experience alongside sport without jeopardizing sporting success.

**Originality/value** – This study adds evidence to the contemporary discourse on dual career theory and career transitions and reconciles the theory of sport entrepreneurship and dual careers.

**Keywords** Sport, Entrepreneurship, Career transition, Dual career, Professional, Football, Soccer

**Paper type** Research paper

## Introduction

The increasing commercialization and professionalization of elite sport in recent decades has led to high energy and time demands, limiting the possibilities for a dual career (education or work alongside sport) (Baron-Thiene and Alfermann, 2015). However, a dual career can differentiate an athlete's focus, provide support in difficult athletic times (Debois *et al.*, 2015), be a pressure valve (Aquilina, 2013), create new perspectives (Stambulova and Wylleman, 2019), shape multifaceted athlete identity (Ryba *et al.*, 2015) and drive personal development that enhances overall performance (Debois *et al.*, 2015).



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Only few athletes receive such amounts of attention and recognition and are able to accumulate enough financial capital to rely on the revenues from sport and maintain their lifestyle during retirement (Granovetter, 2018). Athletes develop transferable skills during their participation in elite sport, such as discipline, commitment, high stress tolerance (Dewenter and Giessing, 2014), efficient time management under pressure (Burlot *et al.*, 2018) and the will to achieve above average (Hemme *et al.*, 2017), skills which are transferable to other areas of life and hence increase employability (Bernes *et al.*, 2009). Nevertheless, athletes experience difficulties, problems, or negative emotions during their career transitions (Park *et al.*, 2013). Being a DC athlete is a potent strategy to positively impact the quality of career transition. A DC allows athletes to be better prepared for their career transition (Stambulova *et al.*, 2021), learn to be proactive about the process (Knights *et al.*, 2019), foster personal resources by taking responsibility for managing their careers (Ryba *et al.*, 2015) and develop valuable competences which are associated with success in the labor market (Ekengren *et al.*, 2018; Barriopedro *et al.*, 2018).

So far, the concept of DC is limited to education and work alongside the athlete's career. Value creation in sport is increasingly characterized by sport entrepreneurial behavior (Hammerschmidt *et al.*, 2020; Pellegrini *et al.*, 2020; Huertas González-Serrano *et al.*, 2020; Escamilla-Fajardo *et al.*, 2020) and being a professional athlete and entrepreneurial behavior are two vitally connected initiatives (Hindle *et al.*, 2021). Entrepreneurial activity and innovative initiatives represent valuable means to sharpen the identity of athletes and their sport organizations (Escamilla-Fajardo *et al.*, 2020). Athletes often engage in sport entrepreneurship because of the opportunity to innovate (Jones *et al.*, 2017). However, there is still much to learn how an athletic career is entrepreneurial and to what extent the entrepreneurial nature influences career transitions of professional athletes.

The research on dual careers is firmly anchored in sport literature (Stambulova *et al.*, 2021). However, there is currently a large discrepancy in the contemporary evidence in the field of dual careers. The analyzed papers included in the recent review by Stambulova and Wylleman (2019) address mainly a DC in sport and education, with only two of them considering aspects of working alongside an athletic career. Moreover, the concept of the DC is limited to education and work alongside an athletic career, neglecting other value creating activities such as entrepreneurship or social engagement. With this in mind, the literature on career transition, dual careers and sport entrepreneurship could benefit from further reflection on educational, working and entrepreneurial experiences that influence the transition to a second career after retirement from elite sport. The study contributes to this debate by testing several concepts of key factors for a successful career transition among professional football players by using a longitudinal data sample of 8,809 players from 1991 to 2017. The purpose of this study is twofold. First, it aims to expand the current literature by examining success factors of decision-making during career transition of professional football players who engage in a DC. In doing so, this study is one of the few that contributes to the current scientific debate of work alongside sport, a relatively neglected field of science. Second, the authors introduce sport entrepreneurship as a possible activity alongside an athletic career, promoting a holistic approach to the concept of the dual career. To conduct the study, this research uses the matched employer–employee data set Quadros de Pessoal (QP). The longitudinal nature of the data allows us to follow, analyzes this study the career path of professional football players over several years and gives us the unique opportunity to track their career transitions. Different authors (Kallmuenzer *et al.*, 2021; Baptista *et al.*, 2020) have used QP to perform recent longitudinal studies. The results indicate that professional football players should keep in mind that they probably need a second career after retiring from professional sport. To increase the chances of success in their career transition, they should develop diverse interests, try to reach high levels of education and acquire additional working and entrepreneurial experiences while playing. Working besides elite sport might negatively

affect the athlete's performance (Baron-Thiene and Alfermann, 2015; Stambulova *et al.*, 2015; Sorkkila *et al.*, 2018). However, the study indicates that an effective strategy is to work only in the last year of the athlete's career, significantly improving the quality of the athlete's transition without compromising the success of the athlete's career. In addition, the study shows that the current concept of dual careers should be reconsidered, and other types of value creation, such as entrepreneurship or social value creation, should be incorporated into the framework.

### Literature review and hypotheses

#### *Dual career competencies and athletes' career transitions*

Few professional athletes are full-time athletes. Most pursue an education or a job in addition to their athletic career (Cartigny *et al.*, 2019). Following Stambulova and Wylleman (2015), a dual career (DC) is defined as "a career with foci on sport and studies or work" (p. 1). DC athletes are usually aware that it is challenging and stressful to follow the DC pathway of doing elite sport and invest in education or a job at the same time (Brown *et al.*, 2015). The increasing commercialization and professionalization of elite sport made it a time demanding and exhausting profession (Baron-Thiene and Alfermann, 2015). DC athletes must not only create a dynamic balance between athletic, academic, social and personal demands (Stambulova and Wylleman, 2019). DC athletes must also deal with stressors such as financial pressures (Cartigny *et al.*, 2019), fatigue/burnout (De Bosscher *et al.*, 2016; Brown *et al.*, 2015), pressure from coaches and/or parents (Cosh and Tully, 2015), weak academic/organizational support (Tshube and Feltz, 2015) and lack of flexibility in scheduling education/work and sport (Baron-Thiene and Alfermann, 2015).

Current literature suggests that the athletes' personal resources are crucial factors in developing coping strategies for stressors on the DC pathway (Stambulova and Wylleman, 2019). In addition, the external network is also important to support the athlete in DC management (De Brandt *et al.*, 2017), but serve only as a compensatory or complimentary factor (Brown *et al.*, 2015). Effective support has to be oriented to the needs of the DC athlete, to emphasize the external view in order to identify problems early on and to strengthen the belief in the DC (Knight *et al.*, 2018). In other words, assisting the athlete to help themselves develop their DC competencies (Stambulova *et al.*, 2021). Athletes report that the most important DC competencies (that make up the DC competency framework) are career planning, mental toughness, social intelligence and adaptability (De Brandt *et al.*, 2017).

The fatigue of DC efforts is obvious and immediate, while the benefits and advantages (e.g. employability) are mostly apparent only in the long run (Pavlidis and Gargalianos, 2014). Athletes report positive motivational aspects to maintain high levels in overlapping sectors such as education, work and sport (Cosh and Tully, 2015). In addition, a differentiated focus between sport and a second activity can function like a pressure valve through the perspectives created for the athlete (Aquilina, 2013; Stambulova and Wylleman, 2019). Investing in education or working can enrich the facets of the athlete's identity, balancing successes and failures in the sporting life (Ryba *et al.*, 2015). Most elite athletes do not focus solely on sport (Cartigny *et al.*, 2019). Development in all domains, including nonsport competencies and skills, may facilitate a supportive environment for the athlete to promote their athletic development. Nonsport components of the athlete's life can be a support especially in difficult periods, such as times of injury or a drop in performance (Debois *et al.*, 2015).

In fact, the benefits and advantages of a DC are going beyond the athletic career itself. Being a DC athlete is positively associated with the preparation for their career after sport (Stambulova *et al.*, 2015). DC athletes act as the primary architects of their life careers and thus of the transition from an athletic career to a second career (Ryba *et al.*, 2015). DC athletes

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learn to proactively manage their careers, which will be a critical feature for a successful career transition (Knights *et al.*, 2019). With the help of a DC, athletes can prepare for their career transition and facilitating safety and stability for their post sport lives (Henry, 2013). A DC can positively sport retirement preparation and hence life satisfaction after sport (Lavallee and Robinson, 2007). By pursuing a DC pathway, athletes can develop valuable skills and knowledge in alternative areas that can enhance career opportunities after leaving sport (Ekengren *et al.*, 2018), ease the transition out of sport (Stambulova and Wylleman, 2019) and facilitate integration into the labor market (Barriopedro *et al.*, 2018).

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#### *Student athletes and career transition*

In general, only a few of the aspiring athletes make it to become a professional one time and “in order to secure transition into the labor market, student-athletes need to strive for success in both sport and school” (Sorkkila *et al.*, 2018, p. 1). In addition, a professional athlete is exposed to major risks if he does not invest in his education parallel with his athletic career. An adverse shock, i.e. an unexpected injury, can significantly affect the athlete’s career and expose him or her to existential threats (Henry, 2013). In such a high-risk environment, athletes and practitioners should furthermore place emphasizes on proper education and prepare elite football players for their postcareer life (Hickey and Kelly, 2008). Practitioners are therefore urged to provide athletes with support programs that help them invest in education and transferable skills during their athletic careers (Stambulova and Wylleman, 2019). In practice, this means that teachers and coaches could motivate students in sport and in school by using self-development and learning as a method (Sorkkila *et al.*, 2018).

However, pursuing the big dream of becoming a successful athlete occupies a major amount of their capacities. The consequence is that elite athletes concentrate primarily on their athletic career (Torregrosa *et al.*, 2015). Entering the world of elite sport is commonly associated with issues regarding their educational trajectories and hence their post athletic career options (Hickey and Kelly, 2008). Participation in both education and elite sport is very stressful for athletes (Cosh and Tully, 2015). Athletes reported that their sport careers had a negative impact on their educational progress which resulted in professional difficulties during the career transition process of athletes (Stronach and Adair, 2010).

Education and development in human resources are generally means of developing behavioral and technical knowledge to enhance performance and thereby contribute to the achievement of human resources and organizational goals (Jacobs, 2017). Elite athletes are usually not financially secure after the end of their athletic career, a fact that underlines the importance of pursuing a dual career or preparing the transition to a second career after sport (Aquilina, 2013). Moreover, sport career transition practitioners can successfully contribute to the quality of athletes’ career transitions. A key implication for them is the implementation of psychoeducational development and training intervention programs (Hong and Coffee, 2017). A key driver for a successful career transition of elite athletes is the development of life skills (Park *et al.*, 2013). Overall, literature indicates that the education level of athletes positively influences the quality of their career transition process (Conzelmann and Nagel, 2003; Cević Erpić *et al.*, 2004) and athletes associate a lack of second-career opportunities with poor personal development during their athletic years (Chow, 2001). Based on the prior discussion, it can be assumed that the level of education of a professional football player positively influences his career transition. Since football players are fully committed to the sport at a young age, it is assumed that educational qualifications can only be acquired during the athlete’s career in the context of a DC. Hence, the following hypothesis can be proposed:

- H1.* A higher level of education as a professional football player increases the likelihood of a second career as an entrepreneur after retirement.

H2. A higher level of education as a professional football player increases the likelihood of a second career as an employee after retirement.

*Dual career as employee*

The field of DC research is well advanced and has built up a large evidence base, especially in the last decade (Stambulova *et al.*, 2021). As previously reported, the DC describes education and work alongside the athlete. However, the research community focuses primarily on the combination of sport and education, and there is little evidence in the current literature on athletes who work alongside their careers (Stambulova and Wylleman, 2019). Athletes working alongside their athletic careers are much rarer than pursuing additional education in parallel. This could be due, among other things, to the fact that athletes find the combination of elite sport and workout significantly more difficult than the combination of sport and education (Debois *et al.*, 2015).

Athletes report that they tend to choose easy jobs to accompany their athletic careers so that they do not distract them from achieving excellence in sport. Having a dual career, however, gives an athlete the opportunity to develop formal knowledge and general work experience alongside playing, increasing their employability (Ryba *et al.*, 2015). Athletes are often competitive, goal oriented and hard-working. They also develop confidence, leadership and communication skills during their athletic careers, especially in team sport, which are important attributes for career success (Hemme *et al.*, 2017). Sport management literature indicates that there is a positive connection between overall performance in various careers such as sport, employment, art or entrepreneurship (Escamilla-Fajardo *et al.*, 2019). Athletes describe the benefits of a dual career with work alongside sport as being able to do other things besides sport, gain useful knowledge, receive a student grant, or have additional income (Ekengren *et al.*, 2018). Torregrosa *et al.* (2015) suggest that athletes who work while still active as elite athletes are better able to adapt to new professional or personal situations during career transition because they had to make largely autonomous decisions during their DC. A review of the literature indicates that athletes who pursue DC as employees are often better prepared for the transition to retirement (Park *et al.*, 2013). Overall, there is limited evidence but research indicates that working while competing may have a positive effect on the career transition of professional athletes. Hence the following hypothesis is proposed:

H3. Working alongside a career as a professional football player increases the likelihood of a second career as an employee after retirement.

*Sport entrepreneurship, entrepreneurial experience and entrepreneurial activity*

The nature of the professional sport environment, its internationalization, the increase in the funding of teams and events, sponsorships and mediatic coverage has offered opportunities for entrepreneurship to occur (Ratten, 2015). Entrepreneurship appears in a wide variety of forms in the spectrum of sport such as community-based entrepreneurship, club entrepreneurship or social entrepreneurship (Ratten, 2010). Evidence suggests that there are parallels between being an athlete and being an entrepreneur (Hammerschmidt *et al.*, 2020). In addition, entrepreneurship is a useful strategy to better understand the processes and mechanism of sport, thereby reducing athletic career management complexity and improving overall performance (Ball, 2005; Pellegrini *et al.*, 2020; Hammerschmidt *et al.*, 2020). An emerging and closely aligned area of research is the study of the processes by which professional or elite sport clubs are managed. While this area is still nascent, attempts are being made to use an entrepreneurial lens to improve the management processes of sport organizations (Hammerschmidt *et al.*, 2021).



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Many athletes engage in entrepreneurship after sport retirement (Hindle *et al.*, 2021), and the success of their entrepreneurial initiatives can benefit greatly from spillovers effects of their athletic careers. The visibility and brand image of successful athletes can be particularly valuable, providing external remunerations to the professional athletic career, which can also benefit them when they start new businesses after their careers end (Parmentier and Fischer, 2012). Athletes can use their athletic success to get involved in entrepreneurial activities, from marketing campaigns to launching their own brands or products (Ratten, 2015). Athletes are mainly driven by emotionally based motives, quite similar to entrepreneurs whose emotional experiences of passion and frustrations are amplifiers for the motivation for entrepreneurial activities (Ruskin *et al.*, 2016; Chan *et al.*, 2015). Sport organizations are a natural environment for entrepreneurship to emerge (Hammerschmidt *et al.*, 2020; Escamilla-Fajardo *et al.*, 2020), and a supportive organizational atmosphere can foster the translation of entrepreneurial intentions into entrepreneurial activities (Meoli *et al.*, 2020).

The process of managing a personal, professional, successful athletic career has many similarities to the process of being an entrepreneur (Hindle *et al.*, 2021). The developed social network, useful contacts acquired and prior business experience can be beneficial in pursuing an entrepreneurial career (Gielnik *et al.*, 2018; Blanchflower *et al.*, 2001; Easley and Roberts, 2012). In addition, Steinbrink *et al.* (2020) found a connection between professional athletes' and entrepreneurs' personality characteristics, which suggests they are suitable for an entrepreneur's position. During their career, athletes learn characteristics that support them in entrepreneurship. Elite athletes, as well as entrepreneurs, constantly have to deal with uncertainty, as the outcome of any sporting competition is unclear (Pellegrini *et al.*, 2020). Both athletic and entrepreneurial careers are often subjected to high workloads, constant pressure and risk of failure, so they must be resilient and motivated to deal with these circumstances (Steinbrink *et al.*, 2020). Particularly, previous entrepreneurial experience was proven to be the most influential type of human capital in the discovery of business opportunities (Davidsson and Honig, 2003). Individuals with higher human capital might have a better ability to perceive a business opportunity and better knowledge and skills to exploit it (Shane, 2003). The link between building human capital during an athletic career and later success in entrepreneurial activities could be due to the fact that an athlete's human capacity is strongly linked to entrepreneurial capacity (Hindle *et al.*, 2021). This means that the human capacities necessary to master a successful athletic career are closely linked to those of an entrepreneurial initiative. However, this does not only apply to entrepreneurial activities. Moreover, Gielnik *et al.* (2018) emphasize that working adults with prior experience from an entrepreneur's perspective can ease the transition to starting entrepreneurial activities. The basis of the literature suggests that the entrepreneurial experience of professional athletes has a nonnegligible influence on the likelihood that they will engage in entrepreneurial activities after their athletic career. Therefore, the following hypothesis can be formulated:

*H4.* Football players' entrepreneurial experience increases the likelihood of entrepreneurial activity after retirement.

## Method

### *Data set*

To test the hypotheses, the study used information on personnel records from the data set Quadros de Pessoal (QP). QP is a mandatory national survey collected yearly by the Portuguese Ministry of Labor and Social Security and a longitudinal matched employer–employee data set, where firms and workers are identified by a unique number, which allows us to track and merge information about the firms and workers over time. Professional

footballers have been monitored and their career paths followed, as some of them continue to work in the Portuguese labor market and pursue a second career. Between the years of 1991 and 2017, 35,001 observations were identified, including 8,809 distinct individuals.

### Variables

The information available from QP allows to define a set of variables associated with the players who can impact the probability of each possible outcome. The dependent variables refer to the two binary outcomes of the study: returning to the labor market and returning as an entrepreneur. The explanatory variables used in the logit models are summarized in Table 1. Part of the variables was used for studying the comeback to the labor market, others for the entrepreneur/employee choice models, and some are shared by both.

Having an additional job during the athletic career was identified if the same individual had two different job categories in the same year (player and nonplayer). If his professional situation corresponded to the entrepreneur's, it means that he gained the additional professional experience as an entrepreneur. For the education level, four categories were defined based on the completed years at school: Low (less than 4 years), Basic (9 years), Secondary (12 years) and Tertiary (a higher education degree). For the "Last league" and "Highest league" variables, 3 categories were defined: First league, Second League and Semiprofessional leagues (third and fourth league).

### Statistical analysis

To relate the choices studied to the variables available from QP, the logit model was used, a binary choice regression model that allows to predict the probabilities of two possible qualitative and binary outcomes (pursue a second career or stay retired; become an entrepreneur or become an employee). The probability of a binary event can be modeled by equation:

$$P(y = 1|x) = G(\beta_0 + \beta_1x_1 + \beta_2x_2 + \dots + \beta_nx_n + u) = G(X\beta)$$

Variable	Description
Return (dummy)	If the former football player pursues a second career as employee after retirement
Entrepreneur (dummy)	If the former football player pursues a second career as entrepreneur after retirement
Education level (dummy)	Number of years completed at school
Portuguese (dummy)	If the individual is Portuguese
Retirement age (years)	Individual's age at the time of retirement from football
Gap (years)	Time period between retirement and second career
Number of clubs	Number of clubs in which the individual has played
Player career length (years)	Number of years the individual was a player
Additional job once	If the player had an additional job during anytime of the football career
Additional job last year	If the player had an additional job during the last year of the football career
Last salary (euros)	The value of the salary received in the last year of the professional player career
Total salary (euros)	The total value accumulated in salaries in all years of professional playing career in Portugal
Last league	The football league in which the individual played during the last year of his football career
Highest league	The highest football league in which the individual played during his career
Entrepreneur once (dummy)	If the individual had gained entrepreneurial experience during the player career

**Table 1.**  
Explanatory variables used in the models

where  $P$  is the probability of the outcome and  $y$  is the dependent or explained variable,  $x_n$  are the independent or explanatory variables, collected from QP,  $\beta_0$  is the intercept and  $\beta_n$  are the parameters associated with the  $x_n$ . The term  $u$  models the error term, which includes all other unobserved variables that impact the probability.  $G$  is a nonlinear function that ensures that the probability  $P(y = 1|x)$ , always fits between 0 and 1 for all values of the  $\beta_n$  and the  $x_n$ . The logit model uses the cumulative logistic function for  $G(X\beta)$ :

$$G(z) = \frac{e^z}{1 + e^z}$$

To explain the effects of an explanatory variable  $x_n$  on the study response probability,  $P(y = 1|x)$ , the marginal effects of the variables in the model are calculated, which can be interpreted as the effect that a change in one explanatory variable has on the change in the probability of the positive outcome when everything else is held constant. To obtain such values in Stata, the average marginal effect method is used, which is obtained by calculating the average of the individual marginal effects across the sample.

## Results

### *Descriptive analysis*

About 33% of the football players in the database pursued an alternative professional activity after retiring from sport in Portugal, and of this proportion, only 8% returned to the market as entrepreneurs, while the rest pursued a second career as employee. The most common career choices among retired players that get reemployed are in public administration and defense, compulsory social security, wholesale and retail trade, repair and maintenance of motorcycles and vehicles, and in sporting, artistic, entertainment and recreational activities, including careers in coaching, club administration and sport management.

Active football players do not have high education levels. About 69% have not completed 12 years of school (the mandatory school attendance in Portugal since 2012) and only about 1% has any type of higher education degree. Regarding salaries, there is a wide pay scale, and the salaries vary a lot between leagues. While first league players earn on average 140,192 euros annually, 50% of the players (of all leagues) receive not more than 15,960 euros per year. All salaries are shown as gross salaries.

On average, players retire at 25.8 years old with a standard deviation (SD) of 5.2 years. After playing for 2.6 years (SD = 2.2) in 1.6 clubs. 71% of the players are Portuguese, but when solely considering the reemployed, this value raises to 92%, since foreign players leave the country either to return to their own, or to play professionally in a club from another country. The reemployed players usually retire with an older age, with more career years and club participations. The retired players that decide to get reemployed, do it on average at 26.9 years old (SD = 5.5), 3.2 years after retirement (SD = 3.6). The ones who become entrepreneurs have a higher average reemployment age and gap and also played during more years and in more clubs. There is a higher percentage of Portuguese individuals in the entrepreneurs' group, as well as individuals with previous entrepreneurial experience. Considering education, entrepreneurs have a higher percentage of individuals who have completed 12 years of school. On the other hand, employees have a higher percentage of individuals with higher education degrees.

Table 2 summarizes information on the players who did or did not pursue a second career. Table 3 summarizes information about the retired players who got reemployed, either as employees or entrepreneurs.

Figure 1 shows the time gap between retirement and reemployment for entrepreneurs versus employees. One can see a clear difference in the distribution curves of the two cases,

## Rethinking dual careers

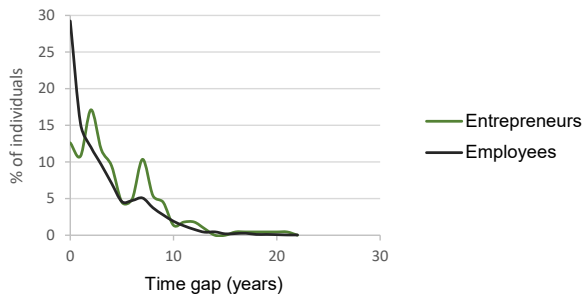
	Does not return		Does return		All retired players	
	Average	SD	Average	SD	Average	SD
Retirement age (years)	25.3	5	26.9	5.5	25.8	5.2
Player career length (years)	2.4	2.1	3	2.4	2.6	2.2
Number of clubs	1.5	1	1.9	1.2	1.6	1.1
Total earned as player (euros)	216,663	787,276	103,897	407,823	180,064	689,475
% of Portuguese	58%		92%		71%	
% with an additional job	0.35%		1.75%		0.81%	
<i>Education</i>						
<4 years		5.3%		6.6%		5.8%
9 years		60.8%		63.8%		61.8%
12 years		32%		28%		30.7%
Higher education		1.4%		1.6%		1.4%
NA		0.5%				0.3%
Number of individuals		5,950		2,859		8,809

**Note(s):** The values refer to the last year of the individuals' career as a professional player

**Table 2.**  
Football career variables and education levels of retired players

	Becomes employee		Becomes entrepreneur		All reemployed players	
	Average	SD	Average	SD	Average	SD
Reemployment age (years)	26.7	5.6	28.8	4.4	26.9	5.5
Gap to reemployment (years)	3.1	3.5	4.4	4	3.2	3.6
Player career length (years)	2.9	2.4	3.5	2.6	3	2.4
Number of clubs	1.8	1.2	2.3	1.4	1.9	1.3
Total earned as player (euros)	96,562	371,934	191,027	701,848	103,897	407,823
% of Portuguese	92%		97%		93%	
% with entrepreneurial experience as players		0.04%		1.8%		0.17%
<i>Education</i>						
<4 years		2.6%		0.9%		2.4%
9 years		56.3%		52.7%		56%
12 years		33.3%		40.1%		33.9%
Higher education		7.8%		6.3%		7.7%
Number of individuals		2,637		222		2,859

**Table 3.**  
Football career variables and education levels of reemployed players



**Figure 1.**  
Time gap between retirement and reemployment (1991–2017)

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with that of the entrepreneurs being more irregular. Also, entrepreneurs take, on average, more time to become professionally active again.

While 30% of former players who become employees do so immediately (with a time lag of zero years), this is the case for only 13% of entrepreneurs. More than half of all employees returned during the first 2 years after retirement and 77% during the first 5 years. In contrast, only about 23% of the entrepreneurs return during the first 2 years and 66% during the first 5.

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*Logit model results: entrepreneur career*

In these models, the control group is a non-Portuguese individual, with a low level of education, with no prior entrepreneurial experience. The last league he played in was the first league and the highest league he played in throughout his career was the first league.

Having been an entrepreneur at least once during the athletic career is the variable with the largest effect on the probability of the outcome, increasing the probability of the positive outcome by 73.8 percentage points. This provides support for [hypothesis 1](#).

The effect of the level of education on the probability of becoming an entrepreneur is only significant for the secondary education group. This means, consistent with [hypothesis 3](#), that a higher level of education increases the probability of being an entrepreneur by around 7 percentage points compared to someone with a low level of education.

The log of the last salary and the log of the total salary accumulated during the career have statistically significant and positive effects, when modeled with the base variables. However, when all the variables are included, the value of the effect of the log of the total salaries increases, but makes the effect of the log of the last salary negative and not significant. According to the results, a 100% increase of the total salary increases the probability of becoming an entrepreneur by 2.9 percentage points, while the log of the last salary is irrelevant for the analysis. Results show that after the decision of returning is made, being Portuguese only increases the probability of becoming an entrepreneur by 3 percentage points. The retirement age is also significant and positive across all models. The effect of the length of the athletic career is significant and positive when modeled along the base variables, showing that one additional year on the individual's career increases his chances of becoming an entrepreneur by 0.6 percentage points. Similar results were obtained for the annual gap between retirement and reemployment: the larger this gap, the more likely the individual is to become an entrepreneur (see [Tables 4 and 5](#)).

The last league in which the individual played during his career is not significant for this decision for either models in which the variable appears. The highest league is statistically significant when modeled with the baseline variables but not with the final model. The Pseudo-R<sup>2</sup> values are similar to those reported by [Lenten et al. \(2013\)](#). Model 17 estimates show that someone who played in the second league or in a semiprofessional league has a lower probability of becoming an entrepreneur than someone who played in the first league.

*Logit model results: employee career*

This model includes a set of base variables that remain on every subsequent model: whether the individual is Portuguese or not, his education level, and his age at the time of retirement. The effects of other variables, beyond control variables, are analyzed from Model 2 to Model 10. Model 10 includes the whole set of variables used in previous models. In addition to the variables presented before, dummies for each year were included in every model, in order to capture fixed effects that could influence the decision in each year and that are not able to observe.

The results obtained show that having had an additional job while playing professionally (dual career) increases the probability of returning to work by 19.7 percentage points.

Variables	Model 11	Model 12	Model 13	Model 14	Model 15	Model 16	Model 17	Model 18
Portuguese	0.034* (0.018)	0.031* (0.019)	0.033* (0.018)	0.036** (0.017)	0.035** (0.017)	0.034* (0.018)	0.034** (0.018)	0.032* (0.018)
<i>Education level</i>								
Basic	0.030 (0.025)	0.033 (0.023)	0.028 (0.025)	0.034 (0.025)	0.038* (0.021)	0.031 (0.024)	0.032 (0.024)	0.034 (0.022)
Secondary	0.066** (0.026)	0.068*** (0.025)	0.065** (0.027)	0.069*** (0.025)	0.070*** (0.023)	0.067*** (0.026)	0.067*** (0.025)	0.067*** (0.024)
Tertiary	0.029 (0.030)	0.034 (0.029)	0.029 (0.031)	0.032 (0.028)	0.038 (0.027)	0.030 (0.030)	0.031 (0.029)	0.038 (0.029)
Retirement age	0.004*** (0.001)	0.003*** (0.001)	0.004*** (0.001)	0.004*** (0.001)	0.003*** (0.001)	0.004*** (0.001)	0.004*** (0.001)	0.003** (0.001)
Gap	0.006*** (0.001)	0.007*** (0.001)	0.006*** (0.001)	0.006*** (0.001)	0.007*** (0.001)	0.006*** (0.001)	0.006*** (0.001)	0.007*** (0.001)
Player career length		0.006*** (0.002)						-0.004 (0.004)
Entrepreneur once			0.740*** (0.175)					0.738*** (0.181)
Log of last salary				0.010* (0.005)				-0.015 (0.009)
Log of total salary					0.015*** (0.004)			0.029*** (0.010)
<i>Last league</i>								
Second						0.009 (0.019)		0.021 (0.022)
Semiprofessional						-0.011 (0.013)		-0.003 (0.018)
<i>Highest league</i>								
Second							-0.030* (0.016)	-0.020 (0.017)
Semiprofessional							-0.024** (0.012)	0.013 (0.020)
Log Likelihood	-551	-547	-544	-549	-543	-550	-548	-533
Pseudo R <sup>2</sup>	0.083	0.089	0.095	0.086	0.096	0.085	0.088	0.112
N	2,269	2,269	2,269	2,269	2,269	2,269	2,269	2,269

**Note(s):** All models control for the year. The base value of each categorical variable is not displayed (education level = low, last league = first and highest league = first). The standard error for each marginal effect is shown in the parentheses below. \*significant at 10%; \*\*significant at 5%; \*\*\*significant at 1%.

**Table 4.** Logit model results for pursuing a second career as entrepreneur

**Table 5.**  
Logit model results for pursuing a second career as employee

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Portuguese	0.338*** (0.012)	0.328*** (0.013)	0.328*** (0.013)	0.337*** (0.012)	0.336*** (0.012)	0.317*** (0.013)	0.281*** (0.014)	0.303*** (0.013)	0.329*** (0.013)	0.246*** (0.015)
<i>Education level</i>										
Basic	-0.088 (0.069)	-0.084 (0.068)	-0.089 (0.068)	-0.089 (0.069)	-0.088 (0.069)	-0.098 (0.067)	-0.108* (0.066)	-0.129* (0.067)	-0.095 (0.069)	-0.100 (0.064)
Secondary	-0.067 (0.069)	-0.063 (0.069)	-0.069 (0.069)	-0.067 (0.069)	-0.066 (0.069)	-0.075 (0.068)	-0.083 (0.066)	-0.107 (0.067)	-0.074 (0.069)	-0.074 (0.064)
Tertiary	-0.052 (0.084)	-0.036 (0.081)	-0.038 (0.083)	-0.056 (0.084)	-0.054 (0.084)	-0.084 (0.082)	-0.069 (0.080)	-0.105 (0.082)	-0.066 (0.084)	-0.075 (0.078)
Retirement age	0.005*** (0.001)	0.002* (0.001)	0.002** (0.001)	0.005*** (0.001)	0.005*** (0.001)	0.009*** (0.001)	0.007*** (0.001)	0.004*** (0.001)	0.006*** (0.001)	0.002 (0.001)
Player career length		0.013*** (0.003)								0.006*** (0.001)
Number of clubs			0.026*** (0.005)							-0.004 (0.008)
Additional job once				0.197*** (0.068)						0.028 (0.100)
Additional job last year					0.348*** (0.065)					0.237** (0.135)
Log of total salary						-0.032*** (0.004)				-0.069*** (0.013)
Log of last salary							-0.061*** (0.005)			-0.011 (0.013)
<i>Last league</i>										
Second								0.126*** (0.017)		0.089*** (0.022)
Semiprofessional								0.150*** (0.015)		0.161*** (0.027)
<i>Highest league</i>										
Second									0.079*** (0.016)	-0.042*** (0.021)
Semiprofessional									0.046*** (0.015)	-0.141*** (0.023)
Log Likelihood	-2.602	-2.592	-2.590	-2.598	-2.595	-2.574	-2.527	-2.549	-2.591	-2.465
Pseudo R <sup>2</sup>	0.192	0.195	0.196	0.193	0.194	0.201	0.215	0.208	0.195	0.235
N	4,880	4,880	4,880	4,880	4,880	4,880	4,880	4,880	4,880	4,880

**Note(s):** All models control for the year. The base value of every categorical variable is not displayed (education level = low, last league = first and highest league = first). The standard error for each marginal effect is displayed below it, in the brackets. \*significant at 10%; \*\*significant at 5%; \*\*\*significant at 1%

This result supports [hypothesis 2](#). However, this effect loses significance when modeled together with the effect of an additional employment in the last year before retirement, which is the variable with the highest effect of all. According to the results of Model 5, having had a job alongside the athletic career on the last year before retirement increases the chance of returning to work by 34.8 percentage points.

As for the effect of education, contrary to expectation, the marginal effects are generally not statistically significant, and it cannot be concluded that education level affects the probability of choosing reemployment. The results therefore reject [hypothesis 4](#).

For the variables related to player salaries, the study used the log of the sum of salaries earned during the athlete's career and the log of the last salary as a player, since players' annual salaries are widely distributed. The estimation results related with the log of the total amount earned in salaries during the career and with the log of the last salary earned from the athletic career are negative and statistically significant. With joint modeling, one of the variables becomes less significant again. Model estimates show that the logarithm of total salary is the predominant effect and that a 100% increase in the value of total salaries decreases the likelihood of pursuing an alternative employment by 6 percentage points. The effects of the retirement age and the number of club participations along the athletic career are positive and significant when modeled with the baseline variables, but lose significance in the final model. This model considers for all variables, including player career length, as there may be some relationship between them: A higher career length may imply a higher retirement age, as most players start playing around the same age, and may also be related to more club participations. The effect of the length of the athletic career is positive and statistically significant, both when modeled with the baseline variables alone and in the final model. Accordingly, an additional year in a football player's career increases his chance by 3.6 percentage points of finding alternative employment rather than remaining unemployed. Furthermore, the highest league they played in was the first league. The effect of being Portuguese is significant across all models and that being Portuguese increases the probability of finding reemployment in Portugal by 24.6 percentage points.

Results show that the effect of the league the player last played in is significant and positive. Having played in the second league in the last year before football retirement increases the probability of returning to work by 12.6 percentage points compared to an individual who last played in the first league. The probability increase rises to 15 percentage points for someone who played on the semiprofessional leagues (third and fourth leagues). The results for the effect of the highest league played during the whole career are similar, despite being lower in value. However, when both variables (last and highest leagues) are included in the same model, the last league results in higher (and positive) marginal effects and the effects of the highest league become negative.

## Discussion

The purpose of this study was to further investigate the influences of dual careers on the career transition of elite athletes by exploring their experiences alongside their athletic careers and their impact on the decision-making process during the transition. The role of sport entrepreneurship within this process is an important contribution to a value-based concept of the dual career. The pattern of findings throughout the study supports theory about the importance of a well-managed career transition of elite athletes for success in a second career. The process of career transition seems to be mainly characterized by the preparations during the athlete's career. The decision as to which path the athlete chooses in this process, either as an entrepreneur or as an employee, is significantly shaped by his or her experiences.



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*Antecedents of entrepreneurial activity after retirement*

Human capital in the form of entrepreneurial experience and managerial competencies have been associated with better chances of identifying and exploiting more business opportunities (Ucbasaran *et al.*, 2008). The study identified that someone who has had some type of entrepreneurship experience is more likely to pursue an entrepreneurial path as a second career. However, approximately 33% of the football players in the database pursued a second career after retiring from sport and of that portion only 8% returned to the market as entrepreneurs. Sport is a natural environment for entrepreneurial behavior to occur (Hammerschmidt *et al.*, 2020). The longitudinal study contributes with in-depth evidence on the relationship between entrepreneurial experience in sport and the launch of entrepreneurial initiatives. In accordance to current literature (Gielnik *et al.*, 2018; Blanchflower *et al.*, 2001; Easley and Roberts, 2012), the results show that the greatest influence of becoming an entrepreneur is prior experience. Being an entrepreneur once supports contemporary evidence suggesting that managing an athletic career can build bridges to embark on entrepreneurial efforts after retiring from elite sport (Hindle *et al.*, 2021). The role of educational level and its impact on the decision to pursue a second career was surprisingly different than expected. A secondary education degree increases the chance of becoming an entrepreneur rather than finding employment after retirement. Education allows to capture general human capital and individuals with higher levels of education might be more likely to perceive a business opportunity (Vakili *et al.*, 2017). These findings emphasize previous evidence which showed that entrepreneurial behavior in sport is often linked with investing in human capital (Hammerschmidt *et al.*, 2020, 2021). In addition to human capital, financial capital increases the likelihood of becoming an entrepreneur. Players who earned above-average either retire completely or engage in entrepreneurial activity. In addition, players who did not return to the labor market accumulated on average twice the salaries of players who returned to pursue a second career, and players who became entrepreneurs also accumulated on average twice the salaries during their football careers compared to players who became employees. High financial stability may increase the players' willingness to take risks, a fundamental characteristic of being an entrepreneur (Kraus *et al.*, 2010, 2012; Covin and Wales, 2012), and invest in entrepreneurial activities. The logit model results allow to conclude that a high retirement age significantly increases the likelihood of choosing entrepreneurship as second career opportunity. This could be due to the fact that a long career path enables players to generate more income. Both a higher retirement age and a longer gap between retirement and reemployment increase the probability of pursuing an entrepreneurial path. It has been found that if there are career breaks due to unemployment, human capital is likely to depreciate (Baptista *et al.*, 2020). Being unemployed for a longer period may lead to difficulties in finding a job as an employee and consequently players decide to engage in entrepreneurial initiatives.

*The narrative of a second career as an employee after retirement*

The literature review showed that current dual career research focuses on education and work alongside an athlete's career. By the subject of the work was meant primarily a position as an employee (Ryba *et al.*, 2015; Debois *et al.*, 2015) and, moreover, this field of the DC has been largely neglected in the discourse to date (Stambulova and Wylleman, 2019). Literature states that it is questionable to what extent a job alongside an athlete's career is suitable for acquiring competencies which can increase employability. Athletes report that they choose simple jobs alongside sport in nonrelevant areas that are less distracting from sport and serve only to provide financial security, rather than to build professional competencies (Ryba *et al.*, 2015; Ekengren *et al.*, 2018). Contrarily, having an additional job while being in the last year of the football career is the variable with the biggest effect on the decision to pursue a career as

an employee in the study. Especially having a dual career in the last year before the retirement from elite sport increases the likelihood of continuing as an employee. This circumstance might be a consequence of career transition programs from clubs, practitioners or supportive institutions (Hong and Coffee, 2017). This is an interesting fact, as the current literature shows that a DC is a major challenge for athletes and DC athletes are prone to negative physical or health issues (e.g., injuries, role strain, burnout symptoms) that inevitably affect the athlete's performance (Baron-Thiene and Alfermann, 2015; Stambulova *et al.*, 2015; Sorkkila *et al.*, 2018). The study shows that it is also an effective method to aim for a DC only in the last year of the athlete's career. This leads to the advantage of being better prepared for a career transition through the acquired professional experience, without jeopardizing the sporting career through possible negative influences of a DC. As mentioned above, the level of formal education, contrarily to expectations derived from current literature (Park *et al.*, 2013; Conzelmann and Nagel, 2003; Cević Erpić *et al.*, 2004), does not have an effect on the probability of pursuing an employment after sport retirement. One possible answer to this circumstance could be that personal resources and soft skills play a more important role in the choice to hire a former professional football player than their current educational status. According to Jacobs (2017), achieving behavioral and technical competencies particularly contributes to the development of human resources, which in turn enhances the performance of both the individual and the organization. During their career, elite athletes develop skills such as self-confidence, leadership and communication skills which can be important attributes for success in their second careers (Hemme *et al.*, 2017; Dewenter and Giessing, 2014; Burlot *et al.*, 2018). Hence, former professional football players may be better prepared for the labor market than initially thought. Especially players who did not have high salaries during their athletic career work as employees afterward. This seems reasonable, because although football is an above-average income industry, the data show that most professional footballers cannot accumulate enough financial capital to sustain a lifestyle after retirement without additional income, emphasizing the necessity of professional football players to proactively take responsibility for their second career and prepare for the transition process. Moreover, a high football player retirement age, length of athletic career and number of club participations enhances employability, which may be due to the fact that they managed to improve their knowledge and expertise about the sport sector. Industry-specific human capital can be valuable for performing on an organizational level (Vakili *et al.*, 2017), especially in the sport industry or related fields (Hammerschmidt *et al.*, 2020; Hindle *et al.*, 2021). In addition, a diverse experience at the club level is likely to enhance the quality of the personal network and thus might increase the chance of employment.

### Conclusion

When athletes decide to pursue a career as professional football player, they should keep in mind that their financial situation will likely require them to launch a second career after retiring from sport. Playing an active role in preparing the process is imperative to facilitate a high-quality career transition. This study highlights the importance of experiences in deciding whether to continue as an entrepreneur or employee after athletic retirement, and shows how investing in a dual career can increase success when embarking on a second career. This study is an important foundation for future studies, with the development of sport entrepreneurship and multifaceted value creation within dual career theory as an important next step.

### *Theoretical implications*

Current dual career research benefits from the presented findings of how the level of education, experience as entrepreneur or experience as employee influences the decision

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making in the career transition process. Moreover, the longitudinal study adds evidence to the scarce field of literature on the topic of employment alongside an athlete's career and how this can impact the success of an athlete's career transition. In addition, the study rethought the concept of DC and introduced entrepreneurship as a possible value-adding activity alongside an athlete's career.

A possible improvement for future studies is to include interactions between explanatory variables in the models to capture possible differences in the effect of one independent variable on the outcome as a function of the values of another independent variable. Further research can be improved by increasing the sample size and research in other sport and other countries. Especially Sweden or Denmark are suitable for this, where national employer–employee data are similarly available. The findings also urge the DC research community to consider other types of value creation within dual career theory, such as investing in entrepreneurship, supporting nonprofit organizations, or engaging in social projects.

#### *Practical implications*

Professional athletes can benefit from a dual career in their career transition process in several ways. First of all, they should keep in mind that the financial capital accumulated during the athletic career will probably not be sufficient and a second career will be required. The fact that personal competencies such as education or experience in nonsport professions facilitate the career transition shows how important it is for athletes to prepare and actively shape the process that is sure to come. The results of the study were also able to show how work experience, especially in the last year of the career, can increase the likelihood of starting a second career after retirement. Planning ahead for retirement from sport and taking up supplementary employment in the final year of a career represents a promising strategy for athletes to gain work experience alongside their sport without jeopardizing their sporting success.

#### *Limitations*

The study is subject to certain limitations. The study is based on the Portuguese employer–employee data set QP. Therefore, there is no information on the employment status of players who either move to a different country or decided to work as self-employed without creating a company. In addition, there have been significant changes in entrepreneurship and dual careers in recent years, which means that the data set ending in 2017 may have limited explanatory power. Since the study is limited to a specific population, sociodemographic characteristics of the sample may influence the results.

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## **Publication V**

Hammerschmidt, J., González-Serrano, M. H., Puumalainen, K., & Calabuig, F.  
**Sport entrepreneurship: The role of innovation and creativity in sport  
management**

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## Sport entrepreneurship: the role of innovation and creativity in sport management

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### Abstract

This article examines the state of research on sport entrepreneurship, with a particular focus on the intersection of entrepreneurship, innovation, and creativity in sport management. Sport is an increasingly important sector of the global economy, yet little attention has been given to the role of entrepreneurship in its development. This article argues that entrepreneurship, innovation, and creativity are crucial drivers of change, innovation, and employment in sport and that sport entrepreneurship is an emerging but unorganized stream of business research. To better understand the relationship between these research fields, we performed a study that combined a systematic review and a bibliometric analysis. This article presents thematic shifts in the field of sport entrepreneurship, innovation, and creativity. It proposes an integrated model of sport entrepreneurship, offering novel perspectives that contribute to the field. Furthermore, the article addresses the lack of research on creativity, sustainability, and the sport entrepreneur, charting underexplored territories. Overall, this article provides a comprehensive overview of current research on sport entrepreneurship and identifies key areas for future investigation.

**Keywords** Sport entrepreneurship · Innovation · Creativity · Sport management · Review

**JEL Classification** M10 · M20 · O10 · Z20

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## 1 Introduction

The sport industry is one of the fastest-growing in the world and is steadily expanding its influence on the global economy (Zhang et al. 2018). The importance that sport plays in our daily lives has led to sport being studied from many different angles (Olivier 2006). However, the sport industry as an economic entity is not recognized by practitioners or scholars, and little is known about sport from an entrepreneurial perspective (Pellegrini et al. 2020). Scholars have anticipated this research gap, as evidenced by the increasing number of academic papers on sport entrepreneurship in recent years (González-Serrano et al. 2020; Pellegrini et al. 2020). This rapid and uncoordinated growth in publications has led to a fragmented and disorganized field of research. As a result, it is currently difficult to find conceptual delineations of sport entrepreneurship within sport management. In addition, it is unclear how and what dynamics have influenced the intellectual structure of sport entrepreneurship during its development.

### 1.1 Theoretical foundations

Entrepreneurship has become a driver of innovation, change, and employment in the sport industry and is essential to meet the rapidly changing needs of consumers (Ball 2005). For sport organizations, entrepreneurship has become an essential tool for business management in general (Hammerschmidt et al. 2020; Núñez-Pomar et al. 2016) and especially in times of crisis (Escamilla-Fajardo et al. 2020a, b; Hammerschmidt et al. 2021). As a result, sport entrepreneurship is emerging as a significant but unorganized stream of business research within the field of entrepreneurship (González-Serrano et al. 2020; Pellegrini et al. 2020).

Enhancing and maximizing the performance of sporting organizations and the individuals inside can be achieved through measures such as innovation and entrepreneurship (Escamilla-Fajardo et al. 2020a, b). Increasingly, the sport industry is demanding employees with entrepreneurial skills (González-Serrano et al. 2017; Jones and Jones 2014). Ayazi et al. (2015) suggested that entrepreneurship in sport can be applied to entrepreneurial opportunities that involve sport and are based on improving the market through highly innovative developments. More recently, Hammerschmidt et al. (2022) defined sport entrepreneurship as “the identification and exploitation of opportunities to create new value through the medium of sport” (Hammerschmidt et al. 2022, p. 6). However, although different scholars agree on the unique characteristics of sport entrepreneurship, there are still discrepancies in the terminology employed (Hammerschmidt et al. 2022).

The differences in the terminology of entrepreneurship in the sport discipline also apply to the application of the concepts of innovation and entrepreneurship in sport. Innovation is an element that is essential for entrepreneurship to occur (Hughes and Morgan 2007; Kraus et al. 2012; Wiklund and Shepherd 2005) and should therefore be considered as an integral aspect rather than an exclusive one. Innovation can be seen as a supporting factor of entrepreneurial behavior and is certainly a key skill

for sport entrepreneurs to create ideas and value. However, to achieve innovation, individual creativity must first be nurtured (Amabile 1988).

Understanding how businesses can develop innovation requires a thorough understanding of creativity, which is "the construction of ideas or products, which are new and potentially useful" (Fillis and Rentschler 2010, p. 49). The benefit of creativity in businesses is the capacity to find innovative solutions that increase operational effectiveness (DiLiello and Houghton 2008). Researchers are examining the role of creativity in sport (Fardilha and Allen, 2020) and in sport employees (Barnhill and Smith 2019; Kim et al. 2023; Paek et al., 2022) as the field of research on creativity in sport organizations develops. Employees in the sport industry are an especially pertinent group for the creation of novel concepts since they are in charge of a variety of distinct activities, such as the organization of sporting events and standard business procedures (Hoeber et al. 2015; Hoeber and Hoeber 2012). The symbiotic connection between innovation, and thus creativity, and entrepreneurship is a promising field in sport management (Hammerschmidt et al. 2023). However, with some emerging exceptions (Barnhill and Smith 2019; Smith and Green 2020), there is a lack of research in the sport management literature that focuses on the creativity of individuals in particular (Kim et al. 2023).

In the realm of sport entrepreneurship, innovation, and creativity research, several distinct theoretical approaches were employed, each elucidating different facets of the dynamic sport industry. These approaches provide frameworks for understanding how entrepreneurial principles, innovative practices, and creative strategies contribute to the evolution and advancement of the research field. Systematically outlining the different perspectives used by scholars to approach theory provides a comprehensive overview for the current study and establishes the groundwork for enhancing theoretical frameworks (see Table 1).

## 1.2 Previous research

Several reviews have been conducted in this field of study thus far. Among them, there are bibliometric studies that focus on sport entrepreneurship (Pellegrini et al. 2020), innovation and sport entrepreneurship (González-Serrano et al. 2020), or innovation in sport (Ferreira et al. 2020). In addition, systematic reviews on sport entrepreneurship and intrapreneurship (Lara-Bocanegra et al. 2022) and narrative reviews on creativity in sport (Fardilha and Allen, 2020) were found, as well as other types of reviews analyzing the interconnectedness of entrepreneurship, innovation, and sport policy frameworks (Pounder 2019). In general, researchers' findings highlight great interest and growth experienced in recent years in the field of study of sport entrepreneurship (González-Serrano et al. 2020; Pellegrini et al. 2020) as well as innovation (Ferreira et al. 2020) and creativity (Fardilha and Allen, 2020).

The bibliometric studies mentioned above were published in the same year; however, they all differ in their objectives. The analysis of Ferreira et al. (2020) is based on a co-citation and citation analysis of the field of sport innovation and focuses on the synthesis of this diverse and interdisciplinary scientific field. The studies of González-Serrano et al. (2020) and Pellegrini et al. (2020) represent more

**Table 1** Synthesis and trajectory of theory applications

Theoretical approach	Application in sport entrepreneurship, innovation and creativity studies	Implications and research directions
Entrepreneurship Theory	Entrepreneurial principles and practices applied in the context of the sport industry, including aspects such as sport management, business models, and organizational strategies	Develop sport-specific entrepreneurship research principles and integrate them into a sport entrepreneurship research framework. Investigate how entrepreneurial thinking influences decision-making processes in sport ventures and sport organizations
Innovation Theory	Various forms of innovation within the sport industry, including technological advancements, product and service innovation, and the adoption of innovative practices to enhance fan experience and operational efficiency	Pursue a balance across innovation theory themes and develop insights into the functioning and success drivers of innovation processes across different sports and levels of competition
Social Entrepreneurship Theory	Contribution of sport organizations and individuals to societal and community development emphasizing social impact, sustainability, and social responsibility	Craft theories to focus on the role of social entrepreneurship in sport management research. Analyze the effects of sport-based social entrepreneurship in achieving long-term societal goals
Network Theory	Interactions, collaborations, and relationships among different stakeholders in the sport industry, including athletes, organizations, fans, and external partners	Investigate the role of sport networks in promoting cross-disciplinary collaborations and knowledge exchange
Organizational Theory	Internal structures, processes, and dynamics of sport organizations, examining how organizational culture, leadership, and management practices impact entrepreneurship, innovation, and creativity or vice versa	Craft research and theories to generate more solid implications of organizational theory in the context of sports

comprehensive bibliometrics, and both were conducted in the field of sport entrepreneurship. Pellegrini's study aimed to identify key substreams of sport entrepreneurship discipline and their interrelationship, recognizing, through a bibliographic coupling approach, four main themes within the field: (1) sport entrepreneurship theory and factors triggering sportspeople's entrepreneurial propensity, (2) environmental factors and conditions fostering sport entrepreneurship, (3) sport entrepreneurial education and (4) the social role of sport entrepreneurship and its implications. Although the study of González-Serrano et al. (2020) also focused on sport entrepreneurship, innovation was additionally included in the search string. The main thematic areas identified differ accordingly: (1) technology innovation products and services, (2) entrepreneurship, management, and education, and (3) determinants of innovation in sport organizations. In addition, they highlighted the lack of empirical studies, the scarce existence of studies analyzing specific types of entrepreneurship, and cross-cultural studies. The fact that only Pellegrini et al. (2020) cite one of the other studies suggests that all three bibliometric studies were developed at almost the same time.

Other systematization efforts in the discipline are far more diverse. Lara-Bocanegra et al. (2022) manually identified subthemes related to sport entrepreneurship, and their study is the only systematic research highlighting social entrepreneurship and intrapreneurship as the main themes in sport. From another perspective, Pounder (2019) examined the interconnectivity between entrepreneurship and innovation in sport in a way that was similar to González-Serrano et al. (2020), but without a systematized review approach. In this work, the focus was mainly on the development of a sport policy framework based on the theoretical and practical insights gained in sport entrepreneurship and innovation research. Finally, Fardilha and Allen (2020) provided a systematic narrative review of sporting creativity. They mainly referred to the ability within sport to perform unpredictable actions and pointed out that there seems to be a connection between creativity and innovation in sport management but that there is a gap in current knowledge on this topic.

### 1.3 Limitations of prior reviews and research goals

The review studies conducted thus far in the field have described the current status and general themes investigated, without focusing on specific subthemes and their evolution. Moreover, several reviews have been performed, but they have not researched the connection between innovation and creativity in sport management (Fardilha and Allen, 2020). Additionally, no studies have analyzed entrepreneurship, innovation, and creativity in sport management together, resulting in fragmented research. The practical challenge facing the sport industry lies in its need to evaluate its past and present to shape its future, given the numerous changes taking place (Hayduk and Newland 2020). Theoretical challenges include the lack of research connecting entrepreneurship, innovation, and creativity in sport management, which is necessary to present an integrated model of sport entrepreneurship. Thus, this review investigates the symbiotic interconnectivity between innovation and

entrepreneurship in sports (Pounder 2019), providing a comprehensive analysis of the literature and suggesting future research in the field. Specifically, this article seeks to answer the following questions: (1) *How has the emphasis on sport entrepreneurship, innovation, and creativity research evolved over time*, (2) *how can the existing fragmented literature be unified into an integrated model that captures multifaceted interactions*, and (3) *what implications does this model have for advancing theoretical coherence and guiding future research directions in the field?*

In doing so, we apply a systematic literature review and a bibliometric thematic evolution approach to contribute to the understanding of the theme. Scientific research includes review papers and literature reviews as essential components (Kraus et al. 2022a, b). Systematic literature reviews support better decision-making by policy-makers and employers and assist scholars in synthesizing the reviewed literature (Kraus et al. 2020). When analyzing research over time, a prevalent longitudinal approach involves segmenting the dataset into distinct timeframes, the length of which is determined by the amount of data available (Cobo et al. 2011). To derive insightful outcomes, the years under study were categorized into the following time subperiods: 2000–2010 (beginnings of the field of study), 2011–2020 (development and evolution), and 2021–2022 (latest trends). The methodological approach used in this research combines (1) a systematic literature review and (2) a bibliometric thematic evolution approach to identify and illustrate conceptual subdomains (specific or generic themes). This is done by identifying articles based on the systematic literature review process (Kraus et al. 2020; Moher et al. 2009). Subsequently, the thematic evolution of the research field is quantified and visualized through the analysis of co-words in a longitudinal framework (Muñoz-Leiva et al. 2012). To show the conceptual development, thematic areas are identified in the process, which in turn are represented graphically in a proposed visualization approach. Finally, the articles assigned to the clusters of main themes are analyzed and synthesized in the distinctive subperiods.

#### 1.4 Main contributions and structure of the study

This study contributes to the literature by analyzing the evolution of the field of study on entrepreneurship, innovation, and creativity in sport management over the last two decades. The longitudinal approach used in this study allows for a comprehensive understanding of the field's development and identifies the most relevant literature and research needs. The study presents an integrated view of sport entrepreneurship by analyzing articles from a holistic perspective. It identifies different research streams that have been studied historically and highlights the main findings and gaps in the literature. The study's findings can lay the foundations for future research, contribute to the development and consolidation of the field, and assist policy-makers and sport entrepreneurs in making better decisions. Furthermore, the study highlights the lack of entrepreneurship in sport management academia and emphasizes the potential contribution of sport entrepreneurship to the future of the sport management field (Ciomaga 2013; Hammerschmidt et al. 2023; Shilbury 2011a, 2011b).

The structure of this paper is as follows. First, the methodology used to collect, select and analyze the data is stated. Next, the results of the thematic evolution are presented through maps and described. After that, a discussion and conclusions section of the results found is proposed focusing on the future directions for the study of entrepreneurship, innovation, and creativity research in sport management. Finally, theoretical and practical implications, limitations, and future research suggestions are presented.

## 2 Methodology

### 2.1 Data collection

This research is based on the recommendations of Kraus et al. (2022a, b), who described a process for conducting a systematic review of the literature. An advanced search was conducted in the Thomson Reuters Web of Science (WoS) Core Collection™ to identify documents published on innovation, creativity, and entrepreneurship in sport management in scientific journals included in this database. The WoS is an accepted database containing high-quality articles published in high-impact journals (Skute 2019; Van Nunen et al. 2018). According to recent studies, the WoS database should be considered when exploring research hotspots and new research frontiers and finding high-quality literature, as it contains internationally authoritative, high-impact, core and credible academic journals (Gan et al. 2022). Furthermore, in the context of sport management, the WoS database was used for conducting bibliometric analyses and systematic literature reviews, as the impact factor (IF) has been considered crucial for ensuring the credibility and high quality of the selected journals and articles (Chiu et al. 2023; Hammerschmidt et al. 2023; Shilbury 2011a, 2011b). Therefore, this database appears to be the most appropriate for this research field and was selected to perform a search string.

The search string used was  $TI=((sport*) AND ((innovat*) OR (creativ*) OR (entrepreneur*)))$ . Thus, variations in the endings of the selected words were accepted (e.g., sports, sportive, innovation, innovative, creativity, creative...). The search was limited to the appearance of these words in the title (TI). It was decided to search for these words only in the title of the articles since, according to the authors, they tend to present the main theme of the article in the title, acting as a preview of the whole article (Wang and Bai 2007). As a result, several bibliometric and review articles have identified documents by using the title field in the search (González-Serrano et al. 2020; Kraus et al. 2022a, b; Lenart-Gansiniec et al. 2023). Only the following indices were selected: Science Citation Index Expanded (SCI-EXPANDED), Social Sciences Citation Index (SSCI), and Emerging Sources Citation Index (ESCI). We selected these indices because they include documents published in the sport management research field. The search was limited solely and exclusively to articles or reviews written in English. This criterion was selected to ensure high-quality methodological rigor and standards since articles undergo peer review before being published (Kraus et al. 2020). In addition, only the following WoS categories were selected: Hospitality, Leisure, Sport & Tourism



OR Management OR Business OR Business Finance OR Economics OR Sports Sciences. This selection of categories was chosen to ensure that the articles were exclusively related to the field of sport management research.

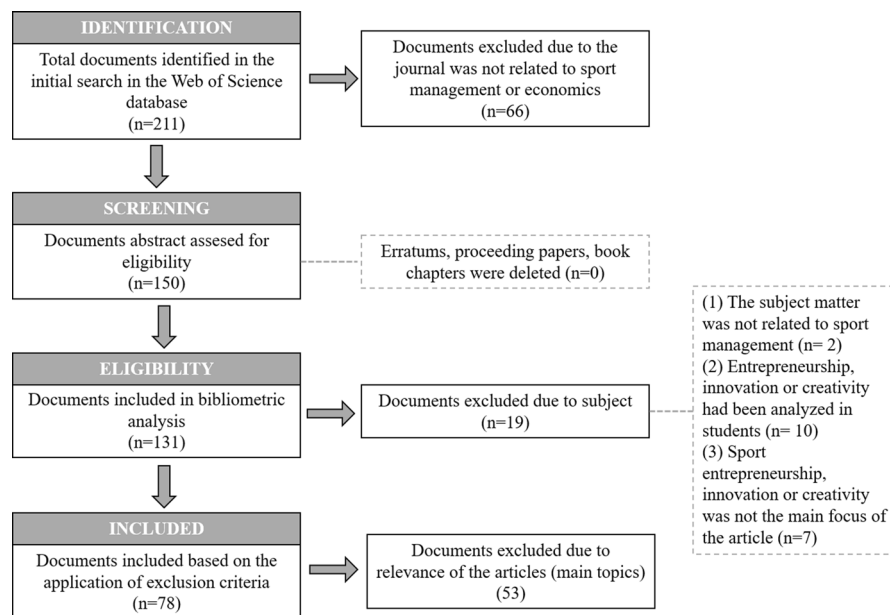
The initial search string yielded 211 documents as of the date the search string was performed (November 8th, 2022). Subsequently, the journals in which the articles and reviews were published were reviewed. Only those journals that published articles related to sport management or economics were selected. Of the initial 79 journals in which articles on this theme had been published, 30 journals were discarded. As a result of excluding journals unrelated to sport management or economics, a total of 61 articles were removed from consideration. Finally, 150 documents were obtained that had been published on this subject in 49 journals in the field of sport management or economics.

The authors adopted the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) approach (Moher et al. 2009) to review the search documents and select the definitive records from the search. Previous authors have used this approach in bibliometric analyses (Kraus et al. 2022a, b; Thananusak 2019). In the second step, the screening process, no ineligible papers were found, and hence, we did not eliminate any documents ( $n=0$ ). Then, the authors checked the titles, keywords, and abstracts of the records to determine the relevance of the remaining 150 papers in the third step, which is known as the eligibility-checking procedure. The criteria for excluding the papers were the following: (1) the subject matter was not related to sport management, (2) entrepreneurship, innovation, or creativity had been analyzed in students, and (3) sport entrepreneurship, innovation, or creativity was not the main focus of the article. Two of the authors reviewed the papers jointly, and discrepancies were resolved through discussion and consensus with the first author. In this process, 131 papers remained (19 documents were deleted) for the bibliometric analysis, which was used to determine the main themes of each sub-period of the field and to assign each article to the corresponding theme. All articles that were not assigned to a main theme were removed due to lack of relevance ( $n=53$ ). The final database for the literature review was composed of 78 documents (see Fig. 1). Finally, the selected papers were downloaded in plain text together with information on the authors, year of publication, affiliation, citations, title, abstract, journal, subject, and references.

## 2.2 Data analysis

The analyses conducted in this article are based on three stages: (1) a systematic literature review process to identify the articles, (2) bibliometric analysis within these articles to identify thematic evolution subperiods and their main themes, and (3) a literature review to synthesize and review the articles of the main themes in their distinctive subperiods.

After identifying the relevant articles according to the abovementioned PRISMA approach (Moher et al. 2009), we conducted a thematic evolution analysis based on co-word network analysis. In addition, clustering was performed to discover the evolution of the themes within this research field. Callon et al. (1991) proposed



**Fig. 1** PRISMA flow diagram protocol for the selection of articles related to entrepreneurship, innovation, and creativity in sport management

co-word analysis as an effective content analysis method for mapping the degree of association between informational elements in textual data. In this type of analysis, clusters represent groups of textual data that can be interpreted as conceptual or semantic clusters of various research-relevant themes (Cobo et al. 2011). By using keyword analysis, researchers can discover and concentrate on dominant research themes (Torres et al. 2020). Therefore, co-word analysis allows the discovery of the main concepts addressed by the research field and is a prevailing approach for discovering and examining the linkages between research fields (Cobo et al. 2011).

In this case, co-word analysis is employed in a longitudinal approach to measure and map the thematic progression of this field of study (Muñoz-Leiva et al. 2012). The data were imported into R studio and converted into a bibliographic data framework. The co-word analysis was performed through an automated process facilitated by the bibliometrix R package. In this analysis, the software automatically identifies and generates co-word clusters based on the author keywords present within the analyzed documents. The process involves two primary steps (Aria and Cuccurullo 2017):

1. Author Keyword Occurrence: Initially, the software examines the frequency of occurrence of each author keyword across the analyzed documents. This frequency provides insight into the prevalence and significance of specific keywords within the research field.
2. Interconnection Analysis: Subsequently, the software evaluates the interconnections between different author keywords. This entails determining

how frequently distinct author keywords appear together within the same documents. The strength and frequency of these co-occurrences contribute to the establishment of meaningful relationships between keywords.

The thematic evolution and thematic map parameters were as follows: the field was author keywords, number of words was more than or equal to 500, minimum cluster frequency (per thousand docs) was more than or equal to 4, weight index was the inclusion index weighted by word occurrences and minimum weight index was more than or equal to 0.10. The Louvain clustering algorithm was selected to detect the clusters (Blondel et al. 2008).

We employ co-word analysis to extract the main themes of specific years of publication. By comparing these themes, we can examine their evolution within the distinct research field (Callon et al. 1991; Muñoz-Leiva et al. 2012). Ideally, data analysis intervals should span one year to avoid data smoothness. In the research field being studied, co-word analysis is limited by the quantity of data, preventing high-level analysis. Consequently, it is recommended to group years into equivalent subperiods (Cobo et al. 2011). The study will analyze three subperiods: (1) 2000–2011, (2) 2012–2020, and (3) 2021–2022. For our analysis, we selected the first subperiod of 12 years (2000–2011). This is because there were few researchers and publications in the field of entrepreneurship, innovation, and creativity in sport management at the outset. For the third subperiod, a subperiod of 2 years was chosen because of the significant increase in publications. Moreover, this helps provide an up-to-date analysis of current trends related to the research question.

To represent the results visually, strategic diagrams were used to present thematic areas in the field that indicate a conceptual evolution. In this way, a two-dimensional strategic diagram was generated by showing the discovered cluster (Callon et al. 1991). The x-axis measures the cluster centrality (using Callon's Centrality index), understood as the relevance degree of a research theme, while the y-axis measures the cluster density (development degree of a specific theme). Centrality is a concept that describes the extent of the interrelationships of the analyzed network. The research problem is considered more important by the research community if the network has stronger connections with other networks. A theme with high centrality is a strategically important pillar of the discipline and fundamental for anyone who wants to interact with the field. The density corresponds to the extent of the intrarelationship of the connections within the network (clusters). The research problem becomes more integrated and coherent as the connections grow stronger because the density is calculated by dividing the sum of the keywords by the number of different keywords. If the density of a cluster is high, it means that the network has the capacity to self-perpetuate and develop over time.

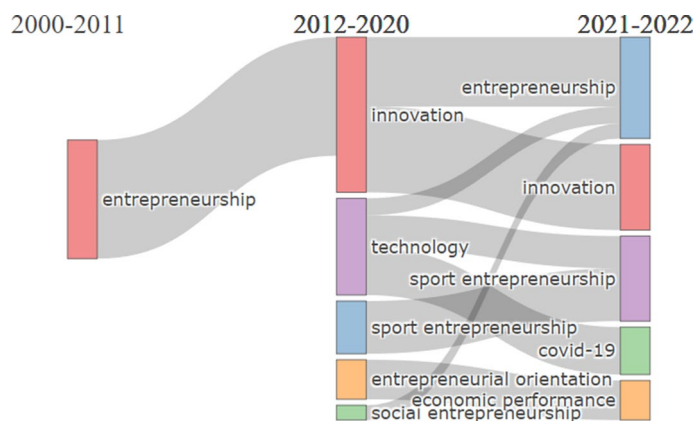
In these spatial representations, themes are shown as circles, and their size indicates the number of documents that are linked with them. The circle is additionally labeled with three keywords that feature the highest level of centrality of the associated theme (most co-occurrences). The topics, represented as a circle, are then plotted in a two-axis diagram and can be divided into four topics according to their position (Cobo et al. 2011):

- (1) Motor themes: Located in the upper right quadrant, they are themes that are considered well developed and significant to the structure of a research area. They are themes that represent a high level of density and centrality.
- (2) Basic and transversal themes: These themes are positioned in the lower right quadrant and are valued for a field of research due to their quality of interrelationships. However, they are internally weakly developed.
- (3) Emerging or declining themes: These themes are in the lower left quadrant and are regarded as poorly or slightly developed. Low density and low centrality characterize the themes in this quadrant.
- (4) Niche themes: These themes are located in the upper left quadrant and are regarded as well-developed because of the high quality of intrarelations. However, niche themes are of low importance to the scientific area due to their low centrality.

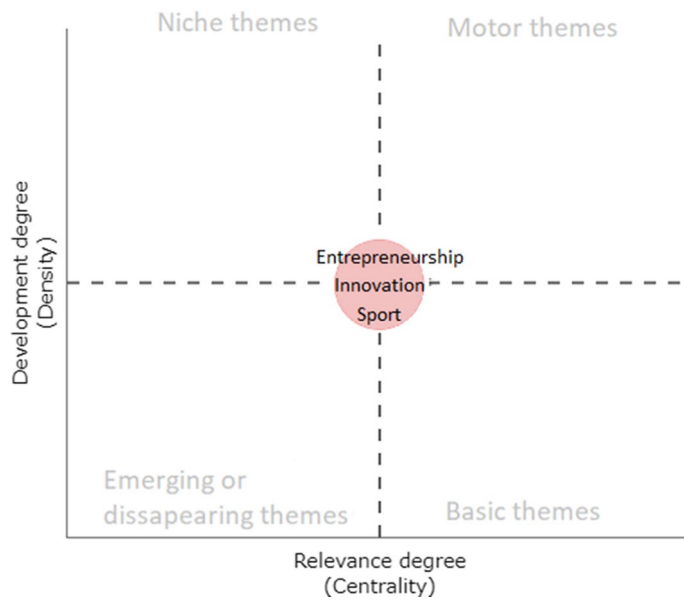
### 3 Results

This section shows the evolution of the main themes of sport entrepreneurship, innovation, and creativity in sport management divided into three subperiods: (1) 2000–2011, (2) 2012–2020, and (3) 2021–2022. First, the evolution of the main themes is shown globally (see Fig. 2), and second, the thematic analysis is deepened in each of the abovementioned subperiods through strategic diagrams (see Figs. 3, 4, 5). The strategic diagrams (Figs. 3, 4, 5) provide an overview of the subperiods, but as mentioned in the methodology section, only the articles associated with the main themes shown in Fig. 2 are subsequently analyzed and reviewed.

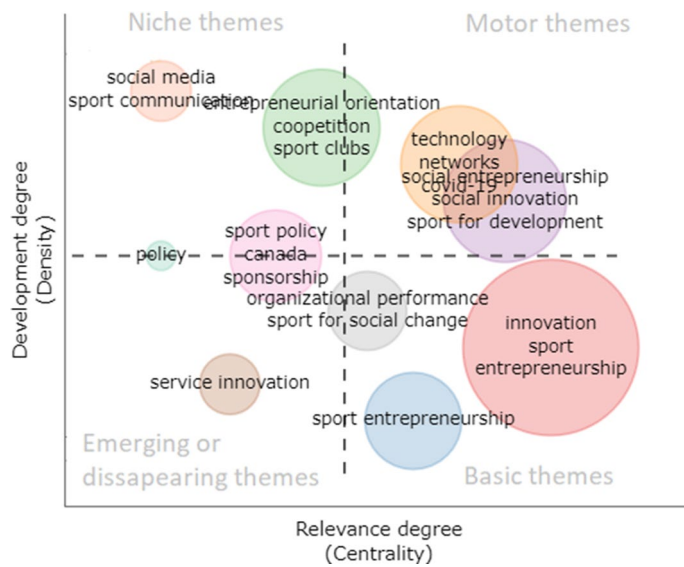
Figure 2 shows that the first articles (2000–2011) published in this research field dealt mainly with entrepreneurship. Subsequently, during the second subperiod (2012–2020), more attention is given to innovation, which becomes a large cluster, and new, more specific, and smaller themes appear within this research field, such as technology, entrepreneurial orientation, and social



**Fig. 2** Evolution diagram of the main themes



**Fig. 3** Strategic diagram of generic thematic clusters in the subperiod 2000–2011



**Fig. 4** Strategic diagram of generic thematic clusters in the subperiod 2012–2020

entrepreneurship. Finally, in the last subperiod (2021–2022), the themes in the innovation field diversify into innovation and entrepreneurship (larger clusters), and technology themes evolve into sport entrepreneurship and COVID-19. In

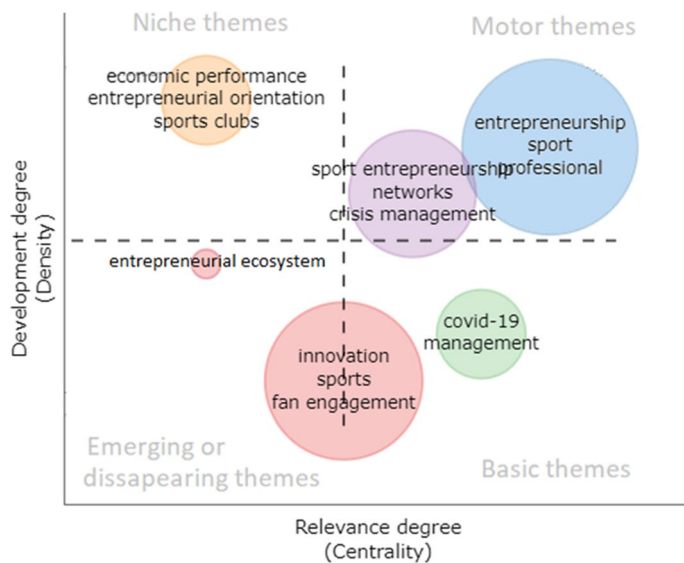


Fig. 5 Strategic diagram of generic thematic clusters in the subperiod 2021–2022

addition, the interest in entrepreneurial orientation evolves toward the analysis of economic performance. Finally, social entrepreneurship evolves toward entrepreneurship in general.

### 3.1 Subperiod 2000–2011: origins of the research field

From 2000 to 2011, studies on entrepreneurship and innovation in sport management focused mainly on the study of entrepreneurship and innovation in general terms. In total, this subperiod represents 8.40% of all articles analyzed and received a total of 702 citations. Only one generic cluster is found in this period, which is at a central point in terms of centrality and density (see Fig. 3).

This subperiod is, therefore, the beginning of the field of study of *entrepreneurship* and *innovation in sport*, in which the initial attempts to conceptualize this phenomenon occurred. Of particular note are the articles by Ratten (2010, 2011), in which the author lays the foundations for the concept and theory for studying sport entrepreneurship. These articles were the first to emphasize the importance of an integrated approach toward entrepreneurship in sport for understanding sport management. The author suggested that sport entrepreneurship is based on behaviors characterized by innovation, creativity, and risk-taking always in the sport context (Ratten 2011). These articles provide a theoretical foundation for the concept of sport entrepreneurship; however, they are literature-based and yet not supported by evidence.

### 3.2 Subperiod 2012–2020: development of the research field

In the next subperiod, from 2012 to 2020, the themes of the research field begin to diversify (10 thematic clusters) and position themselves in different quadrants (see Fig. 4). As seen in Fig. 2, the main themes and therefore drivers of the subperiod were *innovation*, *technology*, *sport entrepreneurship*, *entrepreneurial orientation*, and *social entrepreneurship*. In this subperiod, 57.25% of the publications in this field of study were published, and they have received a total of 1208 citations.

#### 3.2.1 Innovation

Upon analyzing the articles, it is evident that the thematic blocks of *innovation* and *sport entrepreneurship* lack specificity and depth, which can also be seen in their low degree of development. The articles in these blocks tend to be generic and broad in nature, making it difficult to categorize them under specific themes. Specifically, the theme of sport entrepreneurship stands out as it features only one dominant keyword—sport entrepreneurship—with limited recurring keywords. As a result, a wide range of sport entrepreneurship articles is covered under this block, making it challenging to discern specific trends and patterns. This lack of specificity and depth in the literature presents an opportunity for future research to delve deeper into these thematic blocks and identify specific subthemes that can be further explored.

The articles in the innovation cluster cover a variety of themes in sport management and entrepreneurship. One of the main insights from these articles is that sport entrepreneurship is an emerging field of research that requires further methodological strategies to understand its major research trends and developments (González-Serrano et al. 2020). Studies have found that innovation is crucial for the success of community sport organizations (Hoeber et al. 2015; Winand et al. 2016) and outdoor sports (Boutroy et al. 2015; Duret and Angué, 2015), particularly in today's globalized, technology-focused and market-driven environment (Petrović et al. 2015; Tjønndal 2017). Factors such as a clear vision, effective work processes, and social interactions among employees have been shown to influence organizational creativity (Smith and Green 2020). Other studies have explored the challenges of managing institutional pluralism when establishing a new professional sport league (Nite et al. 2020). The findings from these articles suggest that sport entrepreneurship faces unique challenges due to oligarchical league structures, isomorphic and hypertraditional cultures, hierarchical organizational structures, and institutional infrastructure (Nite et al. 2020; Smith and Green 2020). To overcome these barriers, sport entrepreneurs can employ design thinking approaches that emphasize user feedback, diversity of perspectives, and a bias toward action (Joachim et al. 2020).

#### 3.2.2 Sport entrepreneurship

Sport entrepreneurship is an emerging field of research in this subperiod and has received increasing attention. Research has highlighted how sportspeople exhibit higher levels of entrepreneurial orientation and intention compared to the

general population and how sport-related entrepreneurial ventures can positively impact community development (Pellegrini et al. 2020). Additionally, to guide the development of inclusion-driven strategic management, planning, and practice in sport organizations, researchers have developed an entrepreneurial business approach called the Universal Transformational Management Framework (UTMF) (Yélamos et al. 2019). However, this literature is still fragmented and lacks proper systematization, making it difficult to identify its intellectual structure and research themes. Pellegrini et al. (2020) conducted a bibliometric analysis and systematic literature review to address these structural issues in the field. The study revealed that research on sport entrepreneurship can be categorized into four clusters: theoretical definitions and internal factors, environmental factors, pedagogical approaches and education, and the impact on community development and social benefits. Finally, there has been an exploration of religious aspects in sport entrepreneurship, highlighting the potential for sport to provide meaning and physical activity beyond the material realm (Toledano 2020).

### 3.2.3 Technology, networks, and the COVID-19 pandemic

During this subperiod, new themes emerged in the technology cluster, such as *networks* and *COVID-19*, which became motor themes in this area of study. Within this cluster, several articles have focused on how a breakthrough in rethinking the introduction of technological innovations in sport occurred during the COVID-19 pandemic (Majumdar and Naha 2020). Specifically, this need was highlighted during the COVID-19 pandemic for the entire sport industry (managers, coaches, fans, etc.) to make use of entrepreneurial thinking and technological innovations to act creatively (Ratten 2020). In addition, it also served as a starting point to rethink how to improve fan engagement at sporting events, even for those who are not at the event on-site, through the use of technology (Majumdar and Naha 2020). In the same vein, Miragaia et al. (2019) identified the use of technology for enhancing fan engagement as a possible solution to improve the control of the sport clubs of their financial resources due to their positive relationship to sport performance. Thus, investment in recent years by companies in technology to improve processes and establish alliances and networking has increased (Hayduk and Newland 2020), as investment in digital media and the esports industry is beginning to emerge (Hayduk and Walker 2018). Likewise, technology has also been useful in establishing partnerships and networking between sport entrepreneurs and investors (Hayduk and Newland 2020).

### 3.2.4 Entrepreneurial orientation

In terms of niche themes, keywords such as *entrepreneurial orientation* and *competition* are found with a medium degree of development, high levels of centrality, and medium levels of relevance. In the coming years, this theme could either consolidate as a niche theme or evolve into a driving theme. During this subperiod, several articles have shown how entrepreneurial orientation in sport clubs can positively affect their performance (Hammerschmidt et al. 2020; Núñez-Pomar



et al. 2020, 2016; Radaelli et al. 2018). Entrepreneurial orientation has become a well-developed niche theme but may become a motor theme in the future due to its position within the quadrant.

### 3.2.5 Social entrepreneurship and sport for development

The social entrepreneurship cluster, with additional keywords such as *social innovation* and *sport for development*, became another motor theme during this subperiod. Within this cluster, several articles have focused on the understanding of social innovation in sport for development (SFD) organizations (Svensson and Hambrick 2019; Svensson and Mahoney 2020; Svensson and Seifried 2017; Webb et al. 2019). SFD organizations can be organized in a variety of legal structures, but leaders of SFDs have the common feature that they employ different and innovative strategies to manage the distinct internal mechanisms of SFDs to achieve sustainable organizational development and social impact (Svensson and Seifried 2017). Furthermore, to facilitate social innovation in organizations, evidence demonstrates the importance of both the internal aspects of the organization (culture, leadership, paid staff, organizational infrastructure, and financial resources) (Svensson and Mahoney 2020) and the importance of external aspects related to the collaboration and interaction of stakeholders (Svensson and Hambrick 2019).

From another perspective, articles have focused on the social entrepreneur and his or her motivations for becoming a social entrepreneur in sport that drive his or her social value proposition (Cohen and Peachey 2015). Likewise, entrepreneurs in the small business fitness industry have been categorized as social entrepreneurs due to their “desire to help others through body betterment” and to offer their services in a “safe and stimulating social environment” (Hemme et al. 2017, p. 10). However, there are still few articles published on social entrepreneurship in sport, and there is no common definition of this phenomenon (Bjärsholm 2017).

### 3.2.6 Underdeveloped and weakly interrelated themes

The cluster of *organizational performance* and *sport for social change* has a high density and low centrality, indicating the potential for either consolidation or disappearance in the near future. Similarly, the theme of *social media* and *sport communication* has a small degree of development. The cluster of *service innovation* is an emerging theme that could either become a core theme or disappear. Finally, the *policy* and *sport policy* and *sponsorship* clusters are located at the intersection of the lower and upper left quadrants, indicating the need for further analysis in the future to determine their development as niche themes or disappearing themes.

## 3.3 Subperiod 2021–2022: latest trends in the research field

Finally, in the subperiod from 2021 to 2022, 34.35% of the scientific production of this field of study is concentrated, which has received 158 citations. As seen in

Fig. 5, in this last year, sport entrepreneurship is a field of study that has evolved to become a driving theme, also largely developed by the size of the cluster.

### 3.3.1 Entrepreneurship literature in sport gaining conceptual clarity

The literature on entrepreneurship has increased in terms of density and centrality for several reasons. One reason is the increasing recognition of entrepreneurship as a critical driver of economic impact. For instance, the COVID-19 pandemic has highlighted the need for professional sport clubs to develop entrepreneurial strategies to cope with crises, which may require greater managerial and financial skills (Hammerschmidt et al. 2021). In addition, corporate initiatives can create a lasting economic and social impact if strategically managed through entrepreneurial approaches (Schynck et al. 2021).

Another factor is emerging research discussing the capacities of the connected processes associated with starting an entrepreneurial initiative and managing a professional athlete's career (Hindle et al. 2021). Additionally, there is growing interest in how athletes can drive entrepreneurship and social change; however, formal support for athletes who wish to venture into entrepreneurial activities is limited (Moustakas and Kalina 2021). A promising strategy to support the successful entrepreneurial transition of former athletes is to gain work experience through a dual career, especially during the last year of their active athletic careers (Ramos et al. 2022). In addition, in the subject area of entrepreneurship, there has recently been a general increase in empirical studies, and this can be another factor that positively influences the conceptual development of the theme.

The situation is the opposite with articles on the cluster *sport entrepreneurship*, which has evolved out of the *innovation* cluster. The theme has developed and gained density but has lost centrality. One reason for this may be that the articles in this theme area continue to be predominantly theory-based and therefore, in this stadium of the research field, contribute only to a limited extent to further development and a deeper understanding.

### 3.3.2 Innovation and fan engagement

The theme of fan engagement is an emerging area of research within the literature regarding innovation in sports. The literature seeks to understand how innovation affects fans' experiences, preferences, emotions, and behaviors and what implications these may have for sport leagues, teams, and marketers. The use of technology such as decision-aiding tools (Winand et al. 2021) and complementary digital experiences (CDXs) is being explored to improve the fan experience (Yuksel et al. 2021). However, it is also important to consider the potential drawbacks and negative outcomes of these innovations, such as the impact of legal sports betting on fan engagement (Blank et al. 2021). Additionally, the development of "smart" stadiums is influencing sport innovation, but it remains unclear how it may affect discussions on big data in sports (Yang and Cole 2022). Overall, understanding "fans' preferences toward technology in sports and the importance of debate for fandom identity" (p.99) is crucial in implementing

effective innovations that enhance fan engagement but also poses challenges and risks that need to be carefully considered and managed (Winand et al. 2021).

### 3.3.3 The COVID-19 pandemic and management

The theme of the COVID-19 pandemic and management describes the importance of innovation in addressing crises within the sport industry. Due to the position it occupies, the cluster may either become a motor theme in the coming years or disappear. In particular, two studies are mentioned. The first study, conducted by Crespo Celda et al. (2022), emphasizes the need for a more innovative mindset among tennis federations in Latin America to address future crises. The second study by Hayton (2022) highlights the significance of utilizing a combination of digital and physical innovations in third sector sport organizations during the COVID-19 pandemic to enable physical sports practice for individuals with disabilities. These findings suggest that innovation can play a critical role in navigating crises within the sport industry.

### 3.3.4 Entrepreneurial orientation and economic performance

The literature on entrepreneurial orientation has retained its position within the field as a well-developed niche theme. Articles about entrepreneurial orientation in this subperiod suggest that the entrepreneurial orientation of sport club managers, as well as the size and sport level of the clubs, may be influential factors in economic performance. In particular, larger clubs with managers who had high levels of risk-taking and innovation were more likely to achieve high levels of economic and sporting performance (Escamilla-Fajardo et al. 2022). However, managers of professional sport clubs with high levels of proactivity were more likely to have higher economic performance than managers of amateur clubs (Escamilla-Fajardo et al. 2021).

## 4 Discussion

The research field of sport entrepreneurship has grown, evolved, and diversified greatly since its inception at the beginning of the twenty-first century. These findings are in line with previous studies that showed the growth experienced in the field of entrepreneurship (González-Serrano et al. 2020; Pellegrini et al. 2020), innovation (Ferreira et al. 2020), and creativity in sport (Fardilha and Allen, 2020). Our analysis shows that the field has progressively increased, especially recently, as proportionally, there were significantly more articles published in the short subperiod from 2021 to 2022 (34.35% of articles) than in the previous longer subperiod 2012–2020 (57.25% of articles).

#### 4.1 Navigating thematic shifts in sport entrepreneurship

Although the analysis shows that most of the literature on sport entrepreneurship, innovation, and creativity is scattered and fragmented, there are themes within this substream of sport management that have emerged as a coherent research problem. Most notably, entrepreneurial orientation emerged as a strongly developed niche theme in the subperiods 2012–2020 and 2021–2022. The reasons for this can be suggested by Fig. 5, where the term "economic performance" takes the lead in the thematic cluster alongside "entrepreneurial orientation", showing how closely these areas are linked. Likewise, the content-focused literature analysis showed that the articles from this network use the theory of entrepreneurial orientation to determine whether this concept is suitable as a managerial strategy to develop the economic performance of sport clubs. The close linkage of the themes discussed in the entrepreneurial orientation/economic performance network has led to the emergence of a strong niche theme that can be useful as a model for the development of other themes.

The development of the "COVID-19" theme shows that the field has a distinct capacity to mobilize novel research trends. COVID-19 was still a subtheme in the technology cluster in the subperiod from 2012 to 2020, but it was possible to observe how the irruption of the COVID-19 pandemic generated increased attention. The article with the most citations in the 2021–2022 subperiod by Hammerschmidt et al. (2021) highlights the importance of sport entrepreneurship for professional sport clubs to survive the challenges of the COVID-19 crisis.

Although much attention was given to social entrepreneurship and sport for social change during the second subperiod, academics seem to have lost interest in the topic. This may be due to the lack of a common definition of this phenomenon and the fact that sports play a minor role in most published articles (Bjärsholm 2017). However, McSweeney (2020) points out that, within academia, social entrepreneurship is an emerging research stream that is increasing its focus on the sports field. There are several possible reasons why the concept of social entrepreneurship has lost attention in recent years in the field of sport entrepreneurship and innovation. One reason may be that social entrepreneurship has become a widely popularized and often misused term in various fields, leading to a dilution of its meaning and impact (Bjärsholm 2017). Another reason may be that the focus of sport management, in general, has shifted toward more commercial managerial strategies that prioritize profit over social and environmental impact (Ciomaga 2013; Gammelsæter 2021). Additionally, the lack of clear and consistent measurement frameworks for social impact in sport entrepreneurship may also contribute to the neglect of social entrepreneurship in this field (Rawhouser et al. 2019).

## 4.2 An integrated model: a new perspective on sport entrepreneurship, innovation, and creativity

The results of this analysis suggest that the sport management discipline should aim to further develop the field of sport entrepreneurship, creating a common thematic stream to strengthen the interconnections of the field and thus its integrity. This process can be supported by an integrated model of sport entrepreneurship. The integrated model is not limited to individual elements of sport entrepreneurship but includes all aspects and facets of sport entrepreneurship science. Similar to sport management in general (Hammerschmidt et al. 2023), sport entrepreneurship research can also benefit from a holistic approach, as the integrated model allows for an improved understanding of the relationships among the elements of the research.

The results of the bibliometric analysis indicate that the innovation cluster is the largest network in the literature studied in the 2012–2020 subperiod. This implies that sport entrepreneurship, as a theoretical concept overlapping innovation (Hughes and Morgan 2007; Kraus et al. 2012; Wiklund and Shepherd 2005), has played a disproportionate role in the sport management literature. This is also suggested by previous results within the literature since the number of articles on sport entrepreneurship fundamentally increased only after 2015 (González-Serrano et al. 2020), whereas innovation in sport had been discussed earlier and developed progressively, especially starting in 2010 (Ferreira et al. 2020).

However, our analysis shows that there was a change in these trends during the subperiod from 2021 to 2022, and that sport entrepreneurship has emerged as an overarching theme according to its theoretical basis, gaining large shares of the innovation network (see Fig. 2). It should also be noted that the analysis is based on the authors' keywords, and some articles have used the keyword "sport entrepreneurship", but some articles have used two keywords, namely, "sport" and "entrepreneurship". This can also be seen in Fig. 5, where "entrepreneurship" is the strongest keyword in the cluster, followed by the keyword "sport". This means that in the subperiod from 2021 to 2022, it is likely that the "entrepreneurship" and "sport entrepreneurship" clusters are closely linked, and if they are accordingly considered together, their dominance is considerably more significant.

In addition, in the subperiods 2012–2020 and 2021–2022, the combination of the keywords "entrepreneurship" and "sport" is superior to the keywords "sport entrepreneurship" in terms of size, centrality, and density. This is an additional indication that the concept of sport entrepreneurship, similar to sport management in general (Shilbury 2011b), lacks conceptual clarity thus far, and that research is scattered. An integrated model of sport entrepreneurship can provide a holistic approach that will contribute to a more coherent and comprehensive understanding of the fragmented research. A more focused framework of sport entrepreneurship will help to reduce the conceptual ambiguity surrounding the field, thereby facilitating its development and growth.

That the process toward an integrated model of sport entrepreneurship has likely already been initiated, however, can be surmised from the movements of social entrepreneurship toward the thematic network of entrepreneurship (see Fig. 2).

Social entrepreneurship focuses on creating social and environmental impact alongside economic returns (Bjärsholm 2017), and this aligns with the growing demand for sustainable and socially responsible business practices in sport management (Gammelsæter 2021). Moreover, the field of sport can be a powerful platform for social entrepreneurship, as it can reach and engage a large audience and inspire positive social change (Svensson and Hambrick 2019). Sport entrepreneurs can leverage this platform to create innovative solutions that address social and environmental challenges while also creating economic value or pursuing the goal of winning (Hammerschmidt et al. 2022). From the perspective of an integrated model of sport entrepreneurship, social entrepreneurship should be included as a key component to address social and environmental issues while also promoting innovation and creativity in sport management Fig. 6.

## 5 Future lines of research

### 5.1 Prospects for progress: future research directions based on the integrated model of sport entrepreneurship

The integrated model is a guiding framework that unites the various aspects of sport entrepreneurship. By integrating different viewpoints, this model achieves conceptual clarity, methodological synergy, and the possibility for sustained growth. Both researchers and practitioners are equipped with renewed cohesion to navigate the complex field of sport entrepreneurship, which allows the field to continue to

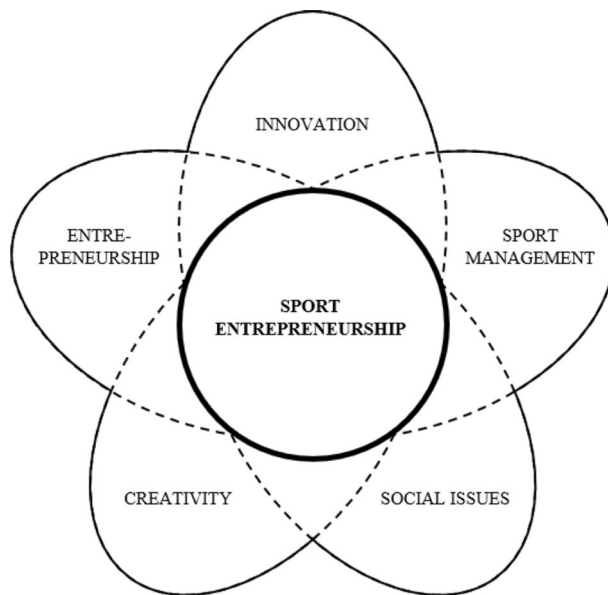


Fig. 6 Integrated model of sport entrepreneurship

progress. The integrated model of sport entrepreneurship opens up several promising avenues for future research, leading to a comprehensive exploration of the field's dynamic dimensions.

### **5.1.1 Cross-cultural contexts**

Examining the application of the integrated model in diverse cultural and geographical settings can yield insights into how entrepreneurial innovation and creativity can be adapted to different sport management landscapes. Comparative studies can unearth contextual nuances that inform best practices and elucidate potential barriers to implementation.

### **5.1.2 Educational interventions**

Researchers can assess the efficacy of educational initiatives designed to cultivate an entrepreneurial mindset and creative skills among sport management professionals. Investigating the impact of such interventions on fostering innovation, stimulating creativity, and aligning with sustainability goals can provide insights into enhancing the capabilities of future sport entrepreneurs. Building upon the insights synthesized from this model, researchers can delve into nuanced areas that can enrich our understanding and inform practical strategies within sport management.

### **5.1.3 Stakeholder interventions**

An essential exploration pertains to how various stakeholders, such as athletes, fans, governing bodies, and sponsors, interact within the context of the integrated model. Understanding the expectations, motivations, and collaborative potential of these stakeholders can guide the formulation of entrepreneurial strategies that maximize value creation across the sport ecosystem.

### **5.1.4 Causal relationships**

Researchers can employ longitudinal studies and experimental designs to uncover causal relationships among the elements of the integrated model. By establishing causal linkages, scholars can provide evidence-based guidance to practitioners on how to leverage entrepreneurship, innovation, and creativity to drive desired outcomes.

### **5.1.5 Policy and regulation**

Delving into the policy and regulatory landscape surrounding sport entrepreneurship, innovation, and creativity can provide insights on the enabling conditions or barriers. Such research can inform the development of frameworks that facilitate entrepreneurial initiatives while aligning with broader societal goals.

In summary, the integrated model of sport entrepreneurship paves the way for various research inquiries. These lines of exploration hold the potential to not only

advance theoretical coherence but also empower sport management practitioners to leverage a holistic understanding for effective decision-making and sustainable growth in the dynamic landscape of sport entrepreneurship.

## 5.2 Addressing the lack of research on creativity

While there has been a significant amount of research on innovation and entrepreneurship in sport management, creativity remains an underexplored area of study. According to Kim et al. (2023), the sport management literature lacks research that specifically focuses on the creativity of individuals. This is surprising, given that creativity is a crucial enabler of innovation in sport and therefore, in sport entrepreneurship. There are several possible reasons for the lack of research on creativity in the field of sport entrepreneurship and innovation. One reason could be, similar to social impact in sports, that creativity is often considered a difficult construct to define and measure, which makes it challenging to study empirically (Fardilha & Allen, 2020). Additionally, there may be a perception that creativity is a more abstract concept compared to innovation and entrepreneurship, which could make it less appealing to researchers. Another possible reason could be the focus on practicality and efficiency in the sport industry (Gammelsæter 2021), which may discourage experimentation and risk-taking, leading to a lack of emphasis on creativity. However, it is essential to recognize that creativity is not just about generating new ideas but also about applying them effectively in practice (Fillis and Rentschler 2010). The lack of research on creativity in the field of sport entrepreneurship and innovation represents a significant gap in our understanding of how innovation can be fostered in sport management. More research is needed to identify the factors that contribute to creativity in sport management (Fardilha & Allen, 2020), as well as how creativity can be fostered and supported in sport entrepreneurship and innovation.

## 5.3 Uncharted sustainability dynamics in sport entrepreneurship research

In addition, the intersection between sport entrepreneurship and sustainability has received limited attention in research. The integration of sustainability into sport entrepreneurship is a relatively new area of inquiry that has been underexplored in the literature. While there is growing recognition of the importance of sustainable business practices in sport, little is known about how sport entrepreneurs engage with sustainability issues and how they incorporate these issues into their managerial strategies and practices.

One possible reason for this limited research is the perception that sustainability may not be a key concern for sport entrepreneurs. Additionally, there may be a lack of understanding of how sustainability can be integrated into the managerial strategies and practices of sport entrepreneurs, as well as a lack of knowledge about the potential benefits of such integration. The integrated model of sport entrepreneurship invites researchers to investigate how sustainability factors can be seamlessly integrated into sports entrepreneurship. Delving into case studies



and empirical analysis, scholars can discern strategies that effectively integrate sustainable practices without compromising innovation and entrepreneurship, thereby fostering socially responsible and environmentally conscious sport ventures.

The complexities of sport management, with its multiple stakeholders and unique cultural and social contexts (Smith and Stewart 2010), make it difficult to develop standardized metrics and tools for assessing sustainability performance. Overall, while there is growing recognition of the importance of sustainability in professional sports (Miragaia et al. 2019), there remains a need for more research to better understand how sport entrepreneurs can effectively incorporate sustainability and the potential benefits and challenges associated with doing so.

#### 5.4 The under investigated role of the sport entrepreneur

Despite the increasing interest in sport entrepreneurship, there is a lack of research that specifically investigates the performance of sport entrepreneurs in the business realm. Existing studies have mainly focused on the characteristics and motivations of sport entrepreneurs (Ramos et al. 2022; Winand et al. 2023), as well as the challenges they face in the sport industry (Goxe and Viala 2010; Parris et al. 2014). However, the specific individual factors that contribute to the success or failure of sport entrepreneurial ventures have not been thoroughly examined. This lack of research on the performance of sport entrepreneurs in sport management is unexpected, given the unique nature of sport and the potential impact of sport entrepreneurship on value creation (Escamilla-Fajardo et al. 2022; Hammerschmidt et al. 2020). In light of challenges such as the COVID-19 pandemic, exploring how sport entrepreneurs leverage innovation and creativity to navigate crises and adapt their strategies offers valuable insights (Hammerschmidt et al. 2021). Understanding the role of resilience building within the integrated model can contribute to developing robust entrepreneurial strategies that withstand disruptions.

Furthermore, given the increasing popularity and commercialization of sports (Ciomaga 2013), it is essential to understand the factors that drive the success of sport entrepreneurial initiatives. Such knowledge could inform policies and strategies to support sport entrepreneurship and enhance the sustainability of sport management organizations. Therefore, research on the sport entrepreneur as an individual could identify the key factors that contribute to the success of sport entrepreneurial ventures, including the role of personal and situational factors, entrepreneurial strategies and practices, and industry-specific factors.

## 6 Limitations

Finally, several limitations must be mentioned. Depending on the database used, the conclusions of bibliometric analyses can differ (Mongeon and Paul-Hus 2016). Therefore, future studies should use other databases (e.g., Scopus, SPORTDiscus, Google Scholar, etc.) and replicate this study to see if the results are similar. In addition, as in all bibliometric studies, the keywords used to limit

the search results may have an impact by excluding some papers on the theme (Terán-Yépez et al. 2020). The titles given by authors to their articles may influence the documents retrieved by the search string. However, we consider this to be unlikely and assume that if this is the case, it affects very few documents. Accordingly, we are confident that the globality and validity of the results are not affected in this study.

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