



"Leveraging control points, digital strategy, and sustainability for a competitive advantage in the professional football industry: FC Bayern Munich as a success case in analysis."

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Abstract

English Version

This thesis critically explores the integration of digital strategies and sustainability initiatives in the professional football industry, with a particular focus on FC Bayern Munich (FCB). The key stakeholders will be identified over two decades, and the associated control points within the digital business ecosystem of professional football will be determined. In this context, two research questions are addressed.

- 1. How are the key stakeholders affected by integrating digital strategies and sustainability initiatives, and how do they contribute to its competitive advantage, particularly in the context of a club like FC Bayern Munich?*
- 2. To what extent can sustainability and digitalization be fully reconciled with success in the professional football industry?*

The study identifies a significant shift in stakeholder dynamics, propelled by digitalization, positioning players as pivotal influencers, surpassing traditional associations like FIFA and UEFA. Despite the industry's increasing commercialization and the treatment of clubs as business models, it is observed that few clubs, aside from FCB, have successfully achieved profitability. FCB's exemplary performance is attributed to its strategic integration of digitalization, effective brand management, and robust fan engagement, complemented by consistent sporting achievements. Additionally, the thesis underscores the complexity of aligning environmental sustainability with the core objectives of football clubs. However, it emphasizes that economic and social sustainability are vital for long-term success in the industry. The findings suggest that while comprehensive environmental sustainability remains challenging, aspects of CSR, particularly economic and social sustainability, are integral to the sustained competitiveness of football clubs.

Title: Leveraging control points, digital strategy, and sustainability for a competitive advantage in the professional football industry: FC Bayern Munich as a success case in analysis.

Author: Lennart Hilke

Keywords: Digitalization, Sustainability, Digital Business Ecosystem, and Control Points

Sumário

Portuguese Version

Esta tese investiga a integração de estratégias digitais e iniciativas de sustentabilidade no futebol profissional, focando-se no FC Bayern de Munique (FCB). Ao longo de vinte anos, identifica-se a evolução dos intervenientes e os pontos de controlo no ecossistema digital deste setor. Duas questões principais norteiam a pesquisa:

1. Como as estratégias digitais e a sustentabilidade influenciam os stakeholders principais e contribuem para a vantagem competitiva de clubes como o FCB?
2. Até que ponto a sustentabilidade e a digitalização podem ser totalmente conciliadas com o sucesso no sector do futebol profissional?

A análise destaca uma transição nos papéis dos stakeholders, com jogadores emergindo como influenciadores-chave, ofuscando organizações como FIFA e UEFA. Apesar da comercialização intensa do futebol e da gestão dos clubes como empresas, poucos alcançaram a rentabilidade do FCB. O sucesso do FCB é creditado à sua digitalização estratégica, gestão eficiente da marca, engajamento dos fãs e sucessos esportivos. Ademais, a pesquisa ressalta a dificuldade de conciliar sustentabilidade ambiental com os objetivos dos clubes. Contudo, a sustentabilidade econômica e social surge como fundamental para o sucesso duradouro no setor. As conclusões apontam que, embora a sustentabilidade ambiental plena seja um desafio, a Responsabilidade Social Empresarial (RSE), principalmente a sustentabilidade econômica e social, é crucial para a competitividade dos clubes.

Título: Tirar partido dos pontos de controlo, da estratégia digital e da sustentabilidade para obter uma vantagem competitiva na indústria do futebol profissional: O FC Bayern de Munique como um caso de sucesso em análise.

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Palavras-chave: Digitalização, Sustentabilidade, Ecossistema de Negócios Digitais e Pontos de Controlo

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Abbreviations

AI – Artificial Intelligence

AR – Augmented Reality

CSR – Corporate Social Responsibility

D2C – Direct-to-Consumer

DBE – Digital Business Ecosystem

FCB – FC Bayern Munich

FFP – Financial Fair Play

FIFA – Fédération Internationale de Football Association

PSG – Paris Saint Germain

UEFA – Union of European Football Associations

VAR – Video Assistant Referee

VR – Virtual Reality

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1. Introduction

Professional football stands at the forefront of a digital and sustainable transformation in an era where digitalization and sustainability reshape industries (Fleischmann & Fleischmann, 2019). This thesis delves into professional football's Digital Business Ecosystem (DBE). Throughout digitalization and sustainable development, the significant change in the professional football industry is analyzed, which primarily entails re-sorting the identified stakeholders between 2003 and 2023. By identifying and scrutinizing the strategic and technical control points defining its evolution over the last two decades, it becomes clear what influence digitalization and sustainability have had on the industry. Central to this investigation is the role of digital strategies and sustainability initiatives in redefining and generating competitive advantage within the industry (Baena, 2019). However, achieving this requires more than just consistent sporting success. Therefore, professional football must develop as a DBE and acknowledge the need to manage the club as a sustainable business. The research focuses on two main questions:

Research Question 1: How are the key stakeholders affected by integrating digital strategies and sustainability initiatives, and how do they contribute to its competitive advantage, particularly in the context of European elite Club FC Bayern Munich?

Research Question 2: To what extent can sustainability and digitalization be fully reconciled with success in the professional football industry?

FC Bayern Munich (FCB), a club that has successfully navigated these changing tides, is a case study to explore these questions. This thesis examines FCB's approach to integrating digital strategies, sustainability, and an internationalization strategy into its business model, setting it apart as a profitable and competitive entity in professional football (Linkesch, 2022). The examination extends to how other clubs have responded to similar challenges and the broader implications on the industry's economic, environmental, and social sustainability. Some stakeholders have not recognized the potential of digital technology early enough and have failed to align themselves sustainably. This has created a gap between them and clubs like FCB that is difficult to close.

The study combines qualitative data analysis with insights from semi-structured interviews with industry experts and secondary data. The results offer a comprehensive view of the transformation within professional football, highlighting the shift in stakeholder dynamics driven by digitalization and the complex relationship between sustainability and commercial success. This research aims to contribute to the broader understanding of how traditional sports entities can adapt and thrive in a rapidly evolving digital and sustainability-focused landscape, providing valuable insights for industry practitioners and scholars.

2. Literature Review

2.1. Digital Business Ecosystem

2.1.1. Background and Overview

DBEs are distinguished by many diverse players, a dynamic and consistently changing nature, the presence of growing players from different economic sectors with varying business models, resulting in a convergence of these sectors, and continuous changes in customer demands (Hanelt et al., 2021). These features underscore the complexity and obstacles firms encounter in DBEs and stress the significance of thoroughly assessing and adjusting business tactics in this exceptionally fluid setting.

DBEs have emerged because of the digital transformation in international trade and have created new markets, products, and business models based on novel digital technologies. These business ecosystems, including DBEs and software ecosystems, have common and specific characteristics and are characterized by the ability to self-organize and scale effectively to meet the demands of an ever-increasing amount of data and digital domains. These business ecosystems involve unlimited companies working symbiotic relationships to gain comparative advantages. In the course of this cooperation, the nature of traditional factors of production is changing, with information and goods being transformed into multiple forms of digital services. This change points to the growth of a service-orientated international economy (Reznikova et al., 2023).

2.1.2. Development of Digital Business Ecosystems

Before delving into the structure of DBEs and the essential stakeholders involved, it is pertinent to examine the historical evolution of the DBE terminology. For a long time, humans have looked to nature for inspiration, not only for technical challenges but also for organizing social structures and shaping collective behavior (Baumann, 2022). This approach impressively illustrates the interactions and dependencies between the actors involved. It is, therefore, not surprising that the term 'ecosystem' has been used in this context (Baumann, 2022).

In the 1980s, Hawley (1986) focused on the concept of 'social ecosystems,' while Frosch and Gallopoulos (1989) coined the term 'industrial ecosystems' (Baumann, 2022; Frosch & Gallopoulos, 1989; Hawley, 1986). Towards the decade's end, Rothschild (1990) explored the 'economy as ecosystem' (Rothschild, 1990). These various studies testify to the increasing use

of the ecosystem concept in analyzing social, industrial, and economic structures and processes. Moore (1993) introduced the term "business ecosystem" into management research describing companies as:

'...as part of a business ecosystem that crosses a variety of industries. In a business ecosystem, companies co-evolve capabilities around an innovation: they work cooperatively and competitively to support new products, satisfy customer needs, and eventually incorporate the next round of innovations.' (Baumann, 2022 p.11; Moore, 1993).

Moore's original definition was further developed by Iansiti and Levien (2004) and expanded into a more comprehensive concept. As described by Nachira (2002), the addition of the word 'digital' to the term 'business ecosystems' towards the end of the century emphasized the growing importance of digital technologies in creating and organizing ecosystems (Baumann, 2022; Iansiti & Levien, 2004; Nachira, 2002). The publications of Moore (1993) and other pioneers inspired the adaptation of the concept of DBEs for different disciplines. This adaptation also emphasizes the inherent multidisciplinary of this concept. Such a development led to the definition we know today, as described previously.

2.1.3. Design of Digital Business Ecosystems

As Baumann (2022) explained, the extensive assortment of participants in DBEs, extending from established market leaders to pioneering start-ups, gives rise to a diverse network of collaboration, competition, and interdependence (Baumann, 2022). This structural diversity can present advantageous prospects and potential hazards, as companies often search for collaborations and partnerships to stimulate innovation and enhance the scope of their products and services. Nevertheless, they must remain aware of the risks that may arise from new competitors with unconventional business models and disruptive technologies.

There are many lists by researchers and authors of the relevant stakeholders of a DBE. Nevertheless, the following can be found in almost all of them. The key stakeholders are visualized in a ranking matrix that will be used in the analysis of this thesis. Strategic control points are marked in blue, and technical ones in green. This matrix explains the significance of the stakeholders and control points. There is little disagreement about the types of entities that can be considered stakeholders. Individuals, groups, organizations, institutions, societies, and even the natural environment are generally considered stakeholders. This means that any

stakeholder can be affected- directly or indirectly (Mitchell et al., 1997). Based on these findings, the following stakeholders can be identified as relevant for a DBE. It is important to note that the type of stakeholder can vary significantly among DBEs. As many stakeholders within a DBE exist, it is helpful to categorize them and classify their impact once identified.

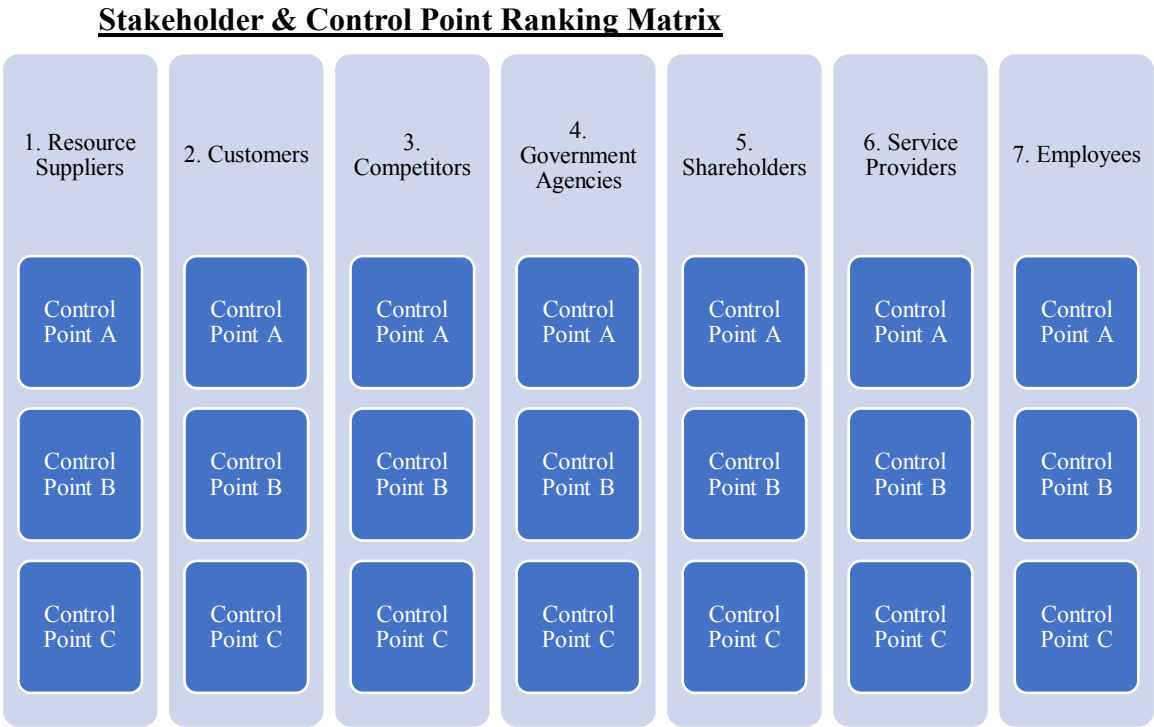


Figure 1: Stakeholder & Control Points Ranking Matrix, own visualization

2.2. Control Points

Control points are a central concept for understanding how value is created and captured and how companies profit from innovation in DBEs. Control points are strategically placed positions within an ecosystem that connect hierarchically arranged components of physical products with modules of digital functionality (Bohnsack et al., 2024). Further, their resilience is crucial in comprehending the co-evolution of product and industrial architectures and the mechanisms of value creation and capture (Bohnsack et al., 2024). Control points can be classified into two main types: technical and strategic. These are facilitated by generic control points and influenced by institutional constraints. Various actors within the DBE, including incumbents, diversifying stakeholders, and new entrants, employ distinct strategies to generate and retain value and establish control points (Bohnsack et al., 2024). The development and interaction of industry and component knowledge are crucial.

Strategic control points are crucial for achieving strategic objectives (Bohnsack et al., 2024). Organizations often face difficulties when they lack multiple control systems focusing on strategic control points. This leads managers to reassess their control processes. Strategic control points aim to protect the revenue stream generated by the corporate framework from the negative effects of competition and customer power (Bohnsack et al., 2024). Within every industry, a hierarchy of strategic control points can be identified. These points vary depending on the industry and include different types. It is important to objectively evaluate these control points while maintaining a concise and logical structure (Márquez, 2010). Strategic control points cover a broad scope and relate to a company's capability to control or influence the ecosystem or market in which it operates, determining its ability to create value. This is often related to business strategy and market positioning (Bohnsack et al., 2024).

Technical control points can be defined as specific components within a DBE that are strategically relevant. These control points can include customer access, unique solutions, orchestration positions, modularity, digital infrastructure, and other technical features that significantly influence the bargaining power of companies within the ecosystem (Bohnsack et al., 2024; van Dyck et al., 2021). Companies deliberately set these technical control points within the multi-layered modular architecture of the DBE. The strategic value of these control points stems from their impact on factors such as data access, connectivity, interoperability, and the ability to enable or restrict access to certain technical resources (Bohnsack et al., 2024; van Dyck et al., 2021).

Control points are vital for capitalizing on innovation in DBEs, acting as bottlenecks or positions of significant value and control within the ecosystem. Determining control points involves strategic decisions, such as selecting partners and identifying strategic bottlenecks. These decisions are dynamic and involve competition. Organizations must anticipate future developments when defining control points. For instance, a company may control the definition of architecture or testing rights within an ecosystem to safeguard future value creation (Bohnsack et al., 2024).

Figure 2 below provides an overview of industries, illustrating how stakeholders capture value and whether they do so through strategic or technical control points. Additionally, it highlights the new approach of DBEs, characterized by agility, adaptability, and innovation

(Autio, 2022; Bohnsack et al., 2024). According to Bohnsack et al. 2024, the matrix differentiates between four circles.

1. Incumbents (Circle 1)

Established firms with significant industry knowledge, leading to high-value capture potential. These companies should focus on establishing technical control points to maintain their market position.

2. Diversifying Entrants (Circle 2)

These companies have comparatively lower value capture potential due to generic control points and weaker value propositions. They must innovate or collaborate with incumbents to gain essential industry knowledge to avoid exiting the industry.

3. New Entrants (Circle 3)

Characterized by high-value capture potential, thanks to their unique solutions linked to technical control points. They should consider independently partnering with established players or developing industry knowledge for greater stability.

4. Integrated Systems Players (Circle 4)

These companies have the highest value capture potential as they cover all aspects of layered modular architecture in a digital business ecosystem. Their extensive reach across the ecosystem allows them to dominate and secure substantial profits.

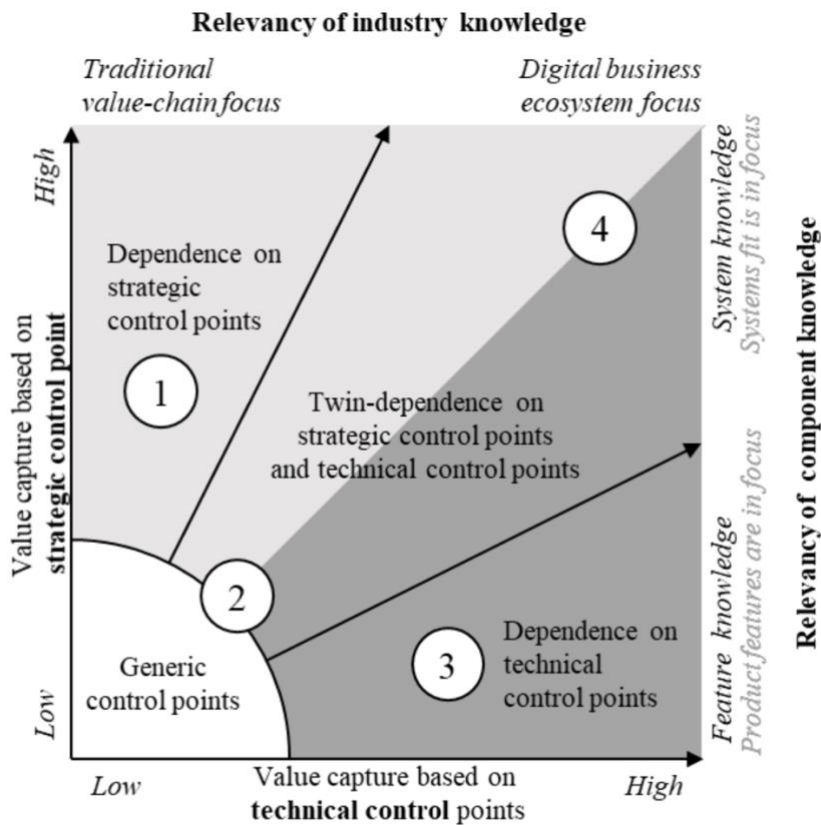


Figure 2: Control point dependence of value capture in digital business ecosystems, (Bohnsack et al., 2024)

Control points exist in various contexts within digital business ecosystems. They include sociological and institutional aspects (e.g., a brand) and technical aspects (e.g., property rights). The influence and power of these control points are also determined by external factors such as regulations. Directives such as the General Data Protection Regulation can determine how companies use technical control points such as personal customer data (Bohnsack et al., 2024).

In conclusion, combining these control points, their strategic placement, and the organization's technical resources determine its bargaining power and ability to generate value in the evolving digital landscape (Bohnsack et al., 2024). The goal is to achieve a competitive advantage.

2.3. Sustainability

2.3.1. Environmental Sustainability

The rise of environmental problems is increasing the importance of sustainability. Today, there are many approaches to defining the term sustainability. The most widely used

approach is that of the UN Commission on Environment and Development. They say that something is sustainable as long as the needs of society are met, but at the same time, the needs of future generations are not endangered (Hauff, 1987).

2.3.2. Economical Sustainability

In addition, there is economic sustainability. This means that a company's business processes are aligned to achieve long-term financial success. However, it is important to note that economic sustainability must be accompanied by ecological and social sustainability in today's world. This means that in addition to the economic success of a company, positive environmental and social outcomes are also of great importance for a company to function successfully in the long term (Doane & MacGillivray, 2001).

2.3.3. Social Sustainability

Therefore, social sustainability is defined in social values, or what most scientific community calls 'social capital'. The crucial question is what must be preserved for upcoming generations and how to accomplish this. The representation of social values must be considered. This involves considering the moral impact on society and for future generations and the potential for creating added value. This context highlights the importance of transparency, fairness, balance, equality, well-being, health, and safety. Social sustainability is upholding, securing, and promoting future generations' values. These value systems encompass preserving human rights, diversity, health and safety, and equity within and between generations (Widok, 2009).

2.3.4. Corporate Social Responsibility (CSR)

Originally, sustainability referred solely to ecological endeavors, but socially responsible and sustainable measures are becoming increasingly significant today. The United Nations Commission has articulated the three-pillar Corporate Social Responsibility (CSR) model based on current trends and concerns. The definition that appears most consistent in recent years describes CSR as the responsibility of a company or brand towards society. This model aims to facilitate the fruitful collaboration between economic, environmental, and social objectives in the long run. A company must consider these objectives when striving to act responsibly and efficiently (Matten & Crane, 2005). These three dimensions are nowadays demanded of companies by society and politics. Thus, the economic success of a company is directly related

to its sustainable management. Nevertheless, CSR only refers to activities within a company's core business (Beal, 2014).

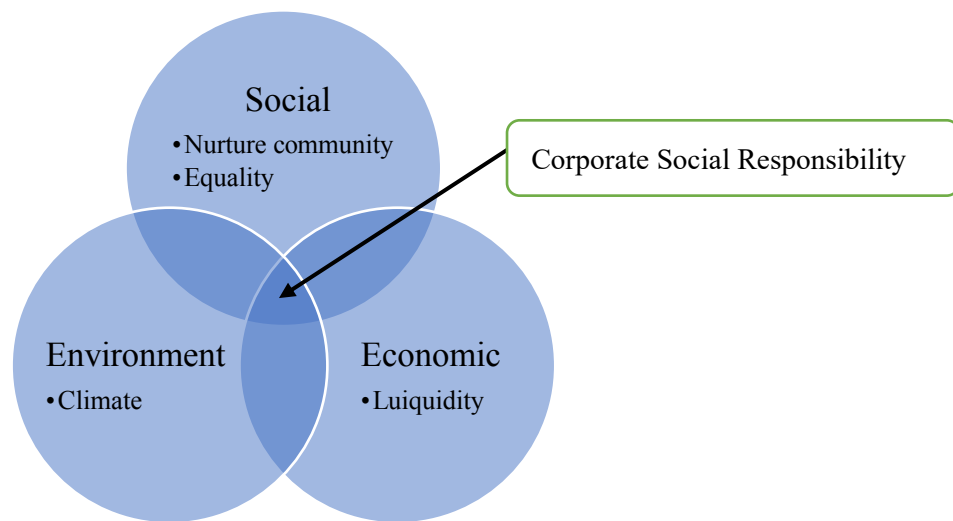


Figure 3: Three pillars of sustainable development (adapted from Purvis et al., 2019)

2.4. Success

The concept of success is different for everyone, as personal goals and aspirations define it (Kreuter & Moltner, 2014). Setting goals is a fundamental requirement for success. Therefore, it is essential to differentiate between the success and failure of various industries and companies, as their target orientation may differ, even if they operate in the same industry. Companies within the same industry can succeed through differing paths and dynamics, even with varying goals (Cantner, 2007).

2.5. Digitalization

Another term that is very relevant to this thesis is digitalization. Digitalization is a very broad term. In the past, it primarily meant converting analog media such as photographs, films, or sound recordings into digital format. Nowadays, the stage of analog information has already been skipped. They are directly converted into digital format and can be stored, processed, and distributed immediately. This process is done with the help of modern information technology in computers, smartphones, communication networks, databases, and internet applications (Luber & Litzel, 2019).

Digital transformation is the term used to describe societal changes triggered by digitalization. This refers primarily to economic, cultural, political, and educational processes (Kreidenweis, 2018). Since then, digital development has progressed by leaps and bounds and is influencing almost all areas of life. An end to the development is far from foreseeable. In the chronology of the industrial revolution, we are now in Industry 4.0 - digitalization and networking. Enormous value is created by optimizing all business processes, such as production, innovation, and efficiency (Mittal et al., 2018). Therefore, digitalization is an omnipresent topic that society must deal with. The economic, political, and general social opportunities that have arisen through digital transformation are huge.

Artificial Intelligence (AI) is a technical innovation that has led to the development of problem-solving behavior in machines and intelligent computer systems. It enables machines to solve tasks that normally require human intelligence. This way, machines can identify, evaluate, and solve problems professionally (Siepermann, n.d.).

2.6. Brand

From a legal standpoint, a brand is a trademarked name and origin mark (Sattler & Völckner, 2013). However, the definition encompasses more than legal boundaries, comprising a brand's identity and customers' dynamic connections and perceptions. A brand can position itself to influence these perceptions and cultivate a brand image. Businesses can secure a lasting edge over competitors by creating and conveying a distinguishable and exclusive brand image (Rapp, 2006).

According to Professor Dr. Gert Gutjahr the approach for brand understanding taken by German economists Heribert Meffert and Christoph Burmann is the most comprehensive. They understand the brand as brand philosophy, company, personalization, and as a product. They also highlight the difference between a brand's self-image and external image (Gutjahr, 2015).

Heribert Meffert defines the brand as "...bundle of benefits with specific characteristics that ensure that this bundle of benefits is sustainably differentiated from other bundles of benefits that fulfill the same basic needs from the perspective of relevant target groups." (Meffert et al., 2015). Meffert also divides the concept of a brand into three components.

2.6.1. Identity

The brand identity is formed exclusively by the company and its internal and external presentation. The internal target group includes all long-term relevant brand characteristics from the perspective of the brand itself and the associated employees. The brand identity expresses these characteristics, for which the brand should initially stand internally and externally in the long term (Meffert et al., 2015).

2.6.2. Image

On the other hand, the brand image merely corresponds to the external image of an external target group. An inside-out perspective supplements the classic outside-in perspective of the brand. The brand identity can be actively developed and consolidated within the company. The brand image of a brand is only formed over a longer period as a reaction to market leadership activities. Shaping of the brand identity is expressed as the brand value proposition, representing the benefits relevant to purchasing behavior vis-à-vis external target groups (Meffert et al., 2015). The brand image is influenced by the brand identity. The communication and delivery of the company's brand value proposition should align with the brand needs and the consumers' brand experience. The brand value proposition should be consistent with brand behavior (Burmam et al., 2015).

2.6.3. Equity

Brand equity refers to the value assigned to a brand or product based on the strong bond between the brand and its customers. The brand itself creates this bond. Brand equity not only enhances the brand's image but also increases customer satisfaction, improves marketing effectiveness, strengthens customer loyalty, and consolidates a company's competitive position, thereby adding value. At the same time, brand equity provides customers with confidence in their decision-making and the assurance of trust in the brand (Park & Srinivasan, 1994).

3. Methodology

This master's thesis aims to analyze how using control points, digital strategy, and sustainability is a competitive advantage in the professional football industry, using FCB as an example of success. The application of a well-structured methodology increases the reliability and validity of the results obtained. These were achieved through systematic research. The procedure is described in this chapter to facilitate understanding of the structure of this paper.

3.1. Research Approach

A comprehensive understanding of the relevant topics is necessary to achieve these results. Qualitative data is collected from primary and secondary sources. The data will be collected through semi-structured interviews with experts from the professional football industry and by analyzing existing secondary data. A comprehensive picture of the research object can be developed through interviews with experts and secondary data. In addition, modern AI tools were used to collect relevant data from the professional football industry and generate input and use cases. The FCB success case analyzed in the results section was identified using AI. The search criteria were determining which stakeholders have best implemented digitalization in the professional football industry over the last 20 years to ensure a sustainable and successful business model. The input obtained from AI was validated using secondary data and up-to-date internet sources. The approach of using several research methods enables the application of triangulation. It is a research principle that views the research object from different perspectives. This ensures consistency and validation of the results. Finally, the accuracy of the results can be improved (Bhandari, 2023).

3.2. Sample

Data was collected from individuals to present, identify, and understand the development of the industry in question. This enables the research question to be answered and the theories described further developed. Purposive sampling may be the only option if the target experts for the study are very difficult to find or recruit for interview appointments (Swanson & Holton, 2005). The interview partners were selected based on their experience level in the relevant industry. Interviewee No.1 has been active in the professional football industry since 1994. In TV rights and sponsorship marketing as Senior VP of Marketing and Business Development at Sportfive, as well as a consultant for the Hamburger Sport Verein, he constantly contributes to the modern development of the industry. Interviewee No.2 also brings great expertise with his previous positions as CEO International at Sportive, CCO, CMO at Hamburger Sport Verein, and MD Global Partnerships at Fanatics International Ltd, providing great added value for the interview and the results. As a result, he has always been close to FCB and has been able to follow its development. This allows important insights to be gained to understand the development of the industry, as well as the success case FCB, and draw the resulting conclusions. Of course, voluntary participation in the interviews was a requirement.

Interview Partner	Position	Background	Experience in years
No.1.	Senior VP Marketing & Business Development	Professional Football Industry	30
No.2.	CEO, CCO, CMO, and MD	Professional Football Industry	25

Figure 4: Interview Partner Overview

3.3. Data Collection and Methods

Semi-structured interviews are prepared in advance with specific questions. As the interview progresses, the questions can be followed up, or the planned sequence can be deviated from to follow up on interesting findings or pursue other questions (Blandford, 2013). This semi-structured approach allows for a dynamic conversation, which can lead to unexpected and valuable results (Rubin & Rubin, 2011). The general process of gathering and collecting data to answer the research question can be broken down and visualized in six steps.



Figure 5: Data Collection Process

The extent to which AI is used as a tool and how the data collection and validation took place is visualized in Figure 6.

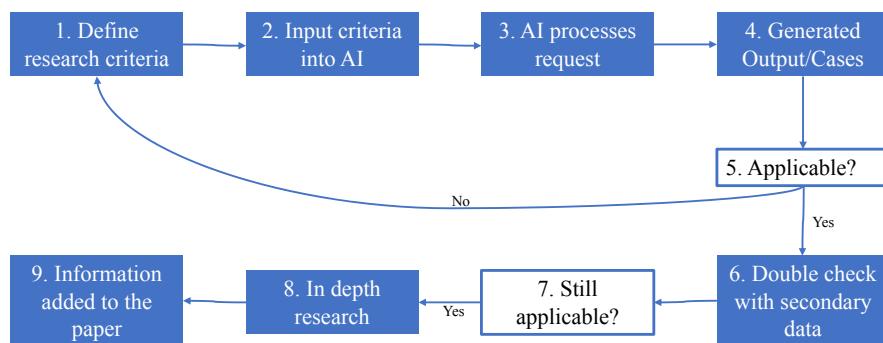


Figure 6: Flowchart: Input identification with AI

4. Results

This section presents the results based on the research topics mentioned in the literature, the semi-structured interviews conducted, and the secondary data collection. In particular, the presentation of the development of the professional football industry over the last 20 years is based on the findings from the interviews conducted with industry experts who have experienced and contributed to this development. Interviewee No.1 described the development of the professional football industry, which was subsequently validated by Interviewee No.2. Interviewee No.2 provided valuable insights due to his collaboration with FCB throughout his professional career, as detailed in the success case chapter.

4.1. Professional Football Industry as an Ecosystem

The next step involves comprehending the professional football industry as an ecosystem. This encompasses understanding the industry's structure, revenue generation strategies, and recognition of the stakeholder types described above in the DBE of professional football, what they are in detail, and what functions they have. In addition, the associated control points are identified and analyzed in this analytical chapter. This is illustrated with the self-generated ranking matrix, which has already been visualized as an example in Figure 1. Above all, however, this chapter will describe the DBE 'professional football' development in its creation, especially during the last 20 years. It will discuss which stakeholders were relevant at which time, what control points were involved, and what significant differences can be identified over time.

4.2. Significance of the key stakeholders within the industry 2003

The professional football industry 20 years ago was dominated differently than today. The relevant stakeholders were easier to keep track of. The Fédération Internationale de Football Association (FIFA) governs world football. Its mission is to promote the game's development and unity and instill unifying, cultural, and humanitarian values in all nations. FIFA furthermore supervises football tournaments and their associated regulations. Headquartered in Zurich, FIFA currently has 209 national associations as members (Max, 2013). Together with FIFA, the associations of the respective continents establish the fundamental structure of worldwide football. The associations were the central players, while internationalization and globalization were not yet as pronounced. This means designing the football product to appeal to needs worldwide and is attractive so that people overseas can

identify with the European clubs similarly (Wesaala, 2018). In football, the beginning of internationalization can be traced back to the transfer of foreign players (Buhler & Nufer, 2009). The starting signal for this was the Bosman verdict in 1995, which stated that there should be no restrictions on foreign European players within Europe. It was also intended to allow players to transfer from one club to another without any transfer fee (Simmons, 2008). Despite the Bosman ruling in 1995, it took some time before the opportunities offered by internationalization were exploited.

Associations such as FIFA or UEFA had the following control points 20 years ago. The associations organize various events, such as the World Cup (FIFA) or the UEFA Champions League. Therefore, the control points are strategically focused on event quality, financial performance, football development, and social impact. This includes smooth on-site processes such as stadium organization, security, and general entertainment. The associations have a major social impact on soccer as a product. As football is the most popular sport in the world, it has given people a lot of pleasure for decades. Above all, it creates a passion that unites people regardless of their background, appearance, gender, or ability. It is an experience that can be shared with everyone and inspires people all over the planet (CIES, 2018). The technical control points mainly relate to the reach of the events and all technical processes that run as smoothly as possible. This includes spectator numbers of television ratings and the efficient running of television broadcasts. This requires a well-structured technical infrastructure.

However, it should be noted that UEFA has had more influence on football than FIFA. UEFA has differentiated its competitions and, thus, its products in a better and more attractive way. UEFA is characterized by the fact that it organizes attractive club competitions and national team competitions. With the 'Qualifiers' and 'Nations League', they have created an additional appealing qualifying competition for the tournament alongside the European Championships. With establishing the UEFA Champions League, they have exerted a certain amount of pressure. Above all, they have been more skillful in commercializing the relevant TV markets and have attracted the most demand (Khaleei Mag, 2023). The technical control points include, for example, functioning technical processes during matches, such as stadium entertainment, and the run-up to online ticket sales.

The media was a very relevant stakeholder 20 years ago. Traditional media companies had a dominant role, and sponsors and suppliers mainly relied on traditional advertising

measures such as perimeter advertising, TV advertising, or partnerships with clubs to be present on the kits. The individual channels were separate from each other, giving the individual media greater control over consumption and their target groups. Newspapers bought static images from marketers and published them in their medium, radio marketing rights had their tool, and moving images were sold to television. The strategic control points were the sales figures, readers, listeners, viewers, and, ultimately, the financial profit that came with it. The technical control points for newspapers are the smooth running of advertising sales, content management, newspaper printing, and distribution. Conversely, optimized broadcasting processes, data compression/content delivery performance, availability, service performance, data security, analytics, and reporting are relevant for digital media.

The isolation of the individual media channels makes it easier for marketers, such as Sportive, to sell advertising rights or TV rights. The strategic control points relate to sales figures and generated revenues and profits. The technical control points are the technical requirements for marketing, such as the sales channels.

The clubs also played an important role in the professional football industry 20 years ago, but generally not as commercialized. Their control points were also designed differently than they are today. The strategic control points mainly involve achieving sporting success, which is undoubtedly the primary objective. Financial stability and sustainable liquidity must also be ensured. Internationalization was less pronounced, meaning club marketing was limited to a more national level. The sporting success and liquidity of the clubs are directly linked to the team's quality and the players' salary expenditure. Back then, the clubs had greater negotiating power because the players were more dependent on the clubs. This was, of course, an advantage for the clubs. In addition, the dependence on traditional sources of revenue was very high. The financial structure was mainly based on ticket sales, merchandising, profitable transfer deals, and local sponsorship agreements. This implies strong talent development, good scouting, and negotiating skills. The coach and coaching staff of the clubs had a decisive influence on the team and, together with the team, were directly responsible for its sporting success. Technological support in training, for example, to achieve data-based performance optimization, was limited. Furthermore, the management of the clubs was less professionalized at the time, deriving mainly from ex-players or active memberships. Moreover, the clubs were considered football clubs, not brands, or companies. The branding of FCB, or the IPO of Borussia Dortmund, was a rare example at the time (Wirtz & Salzer, 2001; Zeit, 2019).

In addition to this, the club's fan base is crucial. Football culture thrives on the clubs' fans, who help consolidate their identity. This was already the case in the early days of football. Whether they attended the stadium or watched the games on television, income from TV revenue and tickets has always been essential for associations, clubs, and leagues (Rohde & Breuer, 2016). It has always been important to the fans that they can identify with the club's values and are engaged and appreciated by the club. To ensure this, the clubs have invested in modern stadium infrastructure, such as the Hamburger SV in the year 2000 with the new stadium construction (Barklage, 2014). However, fan engagement was mainly centered on local communities and stadium attendance. Online interactions via social media or similar were very limited.

The players are the elementary component of every club and, thus, an additional relevant stakeholder in the professional football industry. The players focused, focused not only on their performance on the field to optimize the team's overall success but also on their market value to negotiate better salaries and to receive personal awards, such as the Ballon d'Or award for being the best player in the world. Therefore, the image of a player is also relevant. However, players were limited in presenting themselves as a brand or improving their image off the pitch. The players already had a certain amount of influence, but their branding was less pronounced. Examples such as David Beckham, who managed to turn himself into a brand, were rare exceptions (Urvoy, 2023).

Regarding digitalization, 20 years ago, television was the main platform for broadcasting football matches. As mentioned, the associated marketing was mainly done via traditional advertising. Online access to games and information was limited, and social media played a minimal role. Fans were also only able to purchase tickets in printed form. The influence of digitalization was still very small and not very pronounced. The digital presence of football clubs was also very limited, which meant that the opportunities for media influence were very limited.

The importance of sustainability has significantly increased over the past 20 years. This was partly due to a lack of awareness and pressure from society (Serrat, 2012). At that time, few people in decision-making positions were aware of CSR. There were some approaches to environmental sustainability, such as waste reduction, energy efficiency, and raising awareness among fellow human beings, but no well-thought-out strategies to improve the environment in

the long term. According to Heledd Jenkins's paper, the process began a few years later (Jenkins, n.d.). The economically sustainable orientation already existed then but was limited due to the lack of professionalization at the management level. Social sustainability, on the other hand, was already present. Some associations had charitable initiatives aimed at local communities. This often involved supporting hospitals, non-profit organizations, or schools. There were also projects to provide access to football for disadvantaged communities to promote social inclusion. In addition, many fan groups have campaigned for the integration of minorities and against discrimination (Lozano & Barreiro-Gen, 2022).

The following figure shows the relevant stakeholders of the professional football industry ranked according to their identified relevance and influence, as well as the most important control points. The blue fields show the strategic control points, while the green fields demonstrate the technical control points.

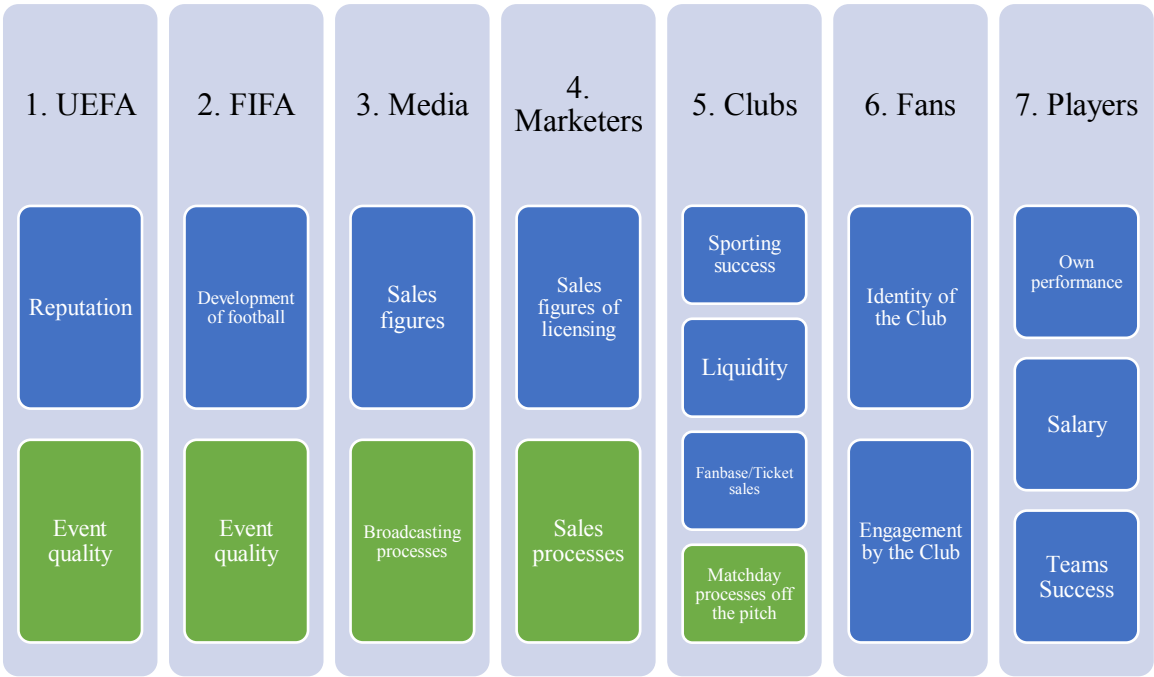


Figure 7: Stakeholder & Control Points Ranking Matrix: Professional Football 2003, own visualization

As defined in Chapter 2.2, the matrix provides a more in-depth overview of the professional football industry. The stakeholders are placed in the matrix according to their alignment with the strategic or technical control points and how they capture value.

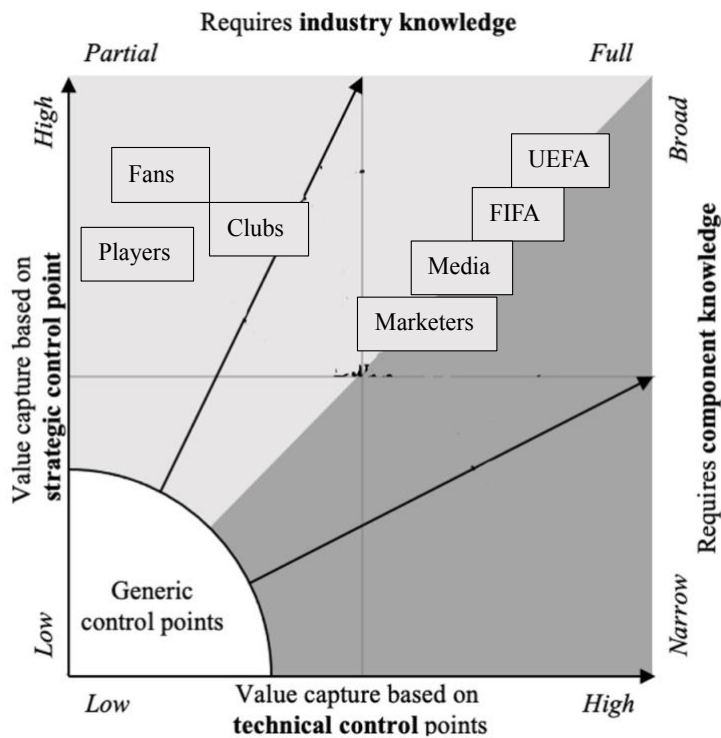


Figure 8: Control point dependence of value capture in digital business ecosystems - Professional Football Industry 20 years ago

4.3. Significance of the key stakeholders within the industry 2013

Over the 10 years that have followed, it has become clear that the key stakeholders in the professional football industry have remained the same. However, the ranking in terms of influence and relevance has changed to some extent. UEFA remained the undisputed most influential stakeholder. UEFA has ensured that the competition remains as exciting and fair as possible through new initiatives. The introduction of the Financial Fair Play (FFP) system was intended to ensure the financial stability of the clubs. This is because it aims to ensure that clubs keep their expenditure in proportion to their revenue to prevent indebtedness and ensure the financial integrity of football (Morrow, 2021). In addition, the UEFA Champions League and the UEFA Europa League, the most important competitions, were further developed (Atkins, 2013). This has included the format, qualification system, and kick-off times to increase attractiveness and competitiveness. These two international competitions always attract the most interest from around the world.

In 2013, the Bosman verdict finally had a major impact. The clubs stepped up their efforts to commercialize themselves globally. International friendlies, summer training camps, and merchandising were the core activities to increase the worldwide fan base and create international identification, thereby expanding the financial base. The development of the clubs' brands has initially become an economically present factor through the development of fan merchandise. By wearing merchandise on the streets, the clubs have become part of people's everyday lives and are also represented by the fans away from match days. One of the main reasons why innovative brand establishment took a long time to get off the ground at clubs and is still very difficult today is that many club managers carry the fans' opinion on their shoulders. Clubs should not be interpreted as brands. Many fans and fan researchers see the brand policy and the accompanying commercialization of soccer as a *'betrayal of the values of soccer'* (Meyer, 2018).

However, brand development is unavoidable for clubs with increasing digitalization. With the help of the new media channels, the key factors that make up a brand, such as identity, image, and equity, can be presented and further developed. The brand identity conveys the club's values and embodies the vision and personality that fans should identify with (Burmam et al., 2015). The brand image includes brand attributes and brand awareness. A strong playing team, the club's history, club colors, regional origin, logo, and passionate fans contribute to the fact that every club has diverse brand attributes (Fink, 2020). Strong brand attributes have a positive effect on brand awareness. The accumulation of the reach of the various media results in growing brand awareness. 'Active media' awareness' refers to the ongoing dissemination of news about the club's activities. Media awareness can be measured using qualitative and quantitative factors (Riedmüller, 2018). With a strong brand identity and growing brand awareness, the brand's equity grows accordingly. It means that more fans buy tickets, more merchandise is purchased, and more people see the sponsorship and advertising, making it more attractive for advertisers to enter advertising partnerships. This further increases the sales volume.

Due to the growing financial possibilities resulting from the increasing accumulation of resources, the transfer fees increased (Totime, 2023). Clubs also introduced technical innovations such as talent development, fan engagement, and video analysis, significantly changing how football was played and coached. The rise of social media also allowed clubs to interact with fans internationally and share content to strengthen the club's brand. However, it

must be said that this also significantly increased public pressure and the expectation of the control point of sporting success.

Accordingly, the world of media is also undergoing major change. The fragmentation of the media has led to a division of media content, platforms, and channels into smaller segments. This was caused by technological progress and changes in media consumption behavior. The diversity of platforms increased. In addition to traditional media such as newspapers, radio, and television, users now gain easy access to social media, streaming services, and other platforms. Moving images could, therefore, be broadcast on additional channels. Previously, rights were only granted for live television broadcasts and highlights. This changed with streaming platforms such as YouTube. The range of content and media consumption changed, and fragmentation made it easier to serve niche content. The exponential development of the convergence of channels has opened numerous new opportunities because all media could be accessed at once via a single end device when Apple changed the market with their smartphone – the iPhone (Chantel, 2023). The media, therefore, had to rethink to exploit the resulting potential. Marketing and sponsorship took on a new dimension due to easy access to the media. Sponsors and advertising partners invested considerable sums to be present across all media. The fact that the media provided a larger platform for the clubs meant that more money flowed into the media itself. As a result, medialization brought completely new opportunities for everyone involved.

The marketers, such as Sportfive, have usually taken over the distribution of rights for the rights holders. That includes both the advertising rights of clubs and the TV rights. During development, the rights holders have acquired the necessary expertise and can increasingly take over distribution. As a result, marketers such as Sportfive are increasingly forced to differentiate and expand their business models, for example, into eSports (Oedinger, 2020).

The players' aspirations and control points have remained the same in sporting terms. However, individual players have started to differentiate themselves from the clubs. With the growth of social media, players have realized that they can now use large platforms and multiple channels off the pitch to present themselves as a brand and develop an additional revenue channel (Joseph, 2017). As a result, players are feeding the media with endless content and driving fragmentation even further. New control points, such as follower numbers and sponsorship revenue for the players, are added.

On the other hand, FIFA lost some of its reputation during the development of professional football from 2003-2013, decreasing its relevance and credibility. With the scandals that have come to public attention over the years, FIFA and football, in general, have tripped themselves up. Examples include the corrupt and controversial decision to host the World Cup in Germany or the decisions to organize the World Cup in Russia and Qatar, where moral values that contradict the norms of democracy and equality are represented (BBC, 2022). FIFA is accused of corruption, but above all, its actions in the interest of soccer are being questioned. As the BBC's blog post in 2022 shows, the sustainability and moral aspects are missed by national associations and, above all, the fans. Regardless, the options for stopping this type of project are very limited.

Increasing digitalization and the development of social media have several impacts on fans. The presence of clubs and players on social media enables fans to follow and even interact with them outside of match days. The experience becomes more tangible and personal. Increasing the appeal of interacting with players and clubs and identifying with the club's identity improves the brand image of clubs and players. Nevertheless, it must be mentioned that fans no longer have the same financial relevance as they had in the past due to the fragmentation of the media and the clubs' growing financial resources.

In 2003-2013, professional football experienced a transformative phase characterized by digital and innovative new developments. Digital tools, such as Hawk-Eye, were introduced in 2012 to enhance fairness in football. An electronic signal is immediately transmitted to the match official when the ball crosses the goal line completely (Bal & Dureja, 2012). Furthermore, AI is revolutionizing several aspects of football. Data collection allows scouts and regular training activities to identify and improve talented players based on statistical values. All actions of players during training or matches can be recorded. This data can be analyzed with the assistance of AI. This allows potential to be discovered in the analysis and personalized training plans to be created (Caressa, 2021). As previously discussed, digital advancements allow for enhanced fan engagement through social media. Furthermore, social media platforms can be integrated with digital sales channels, including ticketing and merchandising, increasing convenience and potential revenue growth (McCarthy et al., 2022). Gathering data proves to be a beneficial feature in internet-based sales. This assists many clubs in establishing a centralized management system for storing and retrieving transactional, demographic, and client-related information. Such data registers can be used over numerous channels for monetization

purposes, such as the website, social media, affiliate marketing, or online store (McCarthy et al., 2022; Prof. Dr. Kawohl et al., 2020).

In 2013, the professional football industry experienced a significant increase in awareness of CSR with a clear focus on economic, environmental, and social aspects. In the economic sphere, football clubs reviewed their partnerships and prioritized collaborations aligned with moral principles such as democracy and inclusion. They increasingly sought partners that critically addressed social and environmental issues and implemented sustainable solutions. For instance, the enduring collaboration between FC Barcelona and UNICEF underwent renewal in 2012 (Sioris, 2012).

Another focus was introducing fair working practices for all club employees to demonstrate ethical and socially responsible corporate governance. At the same time, UEFA worked with the clubs to promote youth development. UEFA introduced its development tournaments in 2012 to allow young talents to partake in intense international matches, develop their skills, and learn about traveling overseas while being part of a team (UEFA, 2022). This included developing talents, improving the infrastructure for youth teams, and supporting training programs. As a result, the clubs' academies have also developed. Technological advances enabled more targeted and sustainable talent training to integrate home-grown talent into the team, reducing transfer expenditure and increasing transfer revenue.

In the environment, clubs and organizations emphasized sustainable stadium operations more. This included using renewable energy, reducing waste, and effective water management. In addition, initiatives were launched by clubs and fans to minimize environmental impact (Jenkins, n.d.).

The increased awareness of the social role of soccer in society led to increased charitable activities. Clubs became increasingly involved in educational programs, social inclusion, and the promotion of diversity. FIFA launched the 'Football is Diversity' campaign, while clubs such as Hamburger SV increasingly promoted programs such as 'Der Hamburger Weg', which translates as 'The Hamburg Way', to support education, health, and social inclusion in their local communities (HSV, 2015). These initiatives also aimed to combat discrimination, promote equal opportunities, and create a diverse fan base.

Again, the relevant stakeholders in the professional football industry are ranked according to their identified relevance, influence, and the most important control points in the following diagram. The blue fields show the strategic control points, while the green fields represent the technical control points.

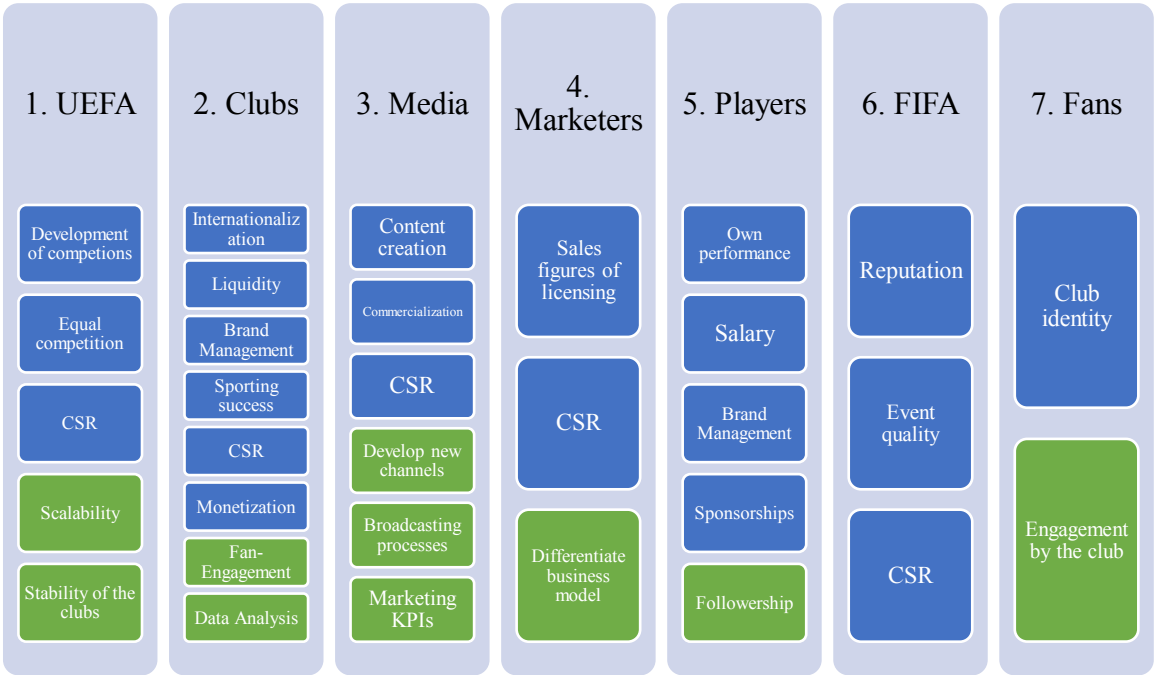


Figure 9: Stakeholder & Control Points Ranking Matrix: Professional Football 2013, own visualization

Again, as defined in Chapter 2.2, the matrix provides a more in-depth overview of the professional football industry. The stakeholders are placed in the matrix according to their alignment with the strategic or technical control points and how they capture value.

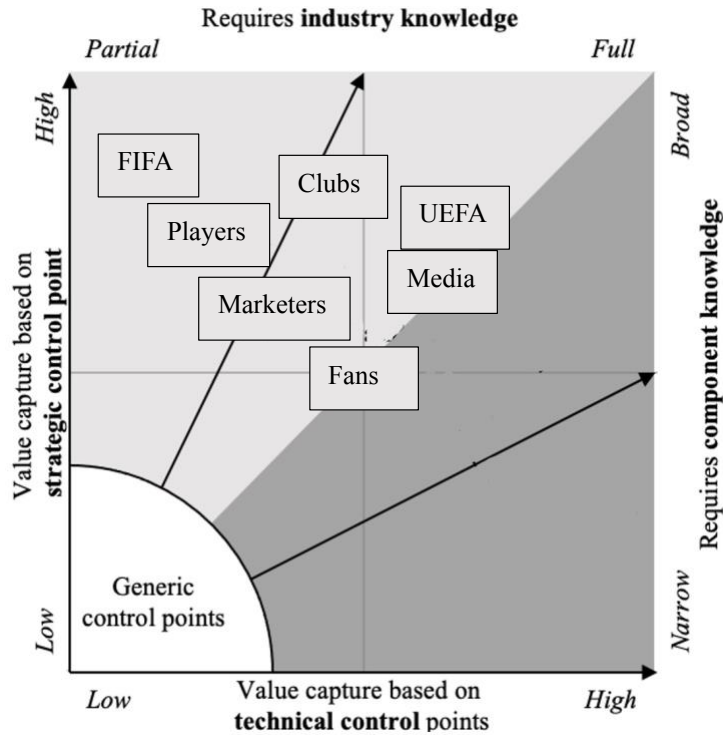


Figure 10: Control point dependence of value capture in digital business ecosystems - Professional Football Industry 10 years ago

4.4. Significance of the key stakeholders within the industry 2023

Arriving in the year 2023, the analysis of the professional football industry over the last 20 years is completed. The change in the industry from 2013 to 2023 is much more drastic than 10 years earlier. The hierarchy of stakeholder relevance has changed significantly due to the ongoing development of digitalization. The stakeholders with the most influence in the professional football industry are now the players. In addition to their sporting careers, the associated revenue from contracts with their clubs, and personal and team successes, the new revenue streams resulting from the digitalization and transformation of soccer have taken on a huge dimension.

Regarding sponsorships, the players can now be classified as competition for the clubs. Manchester United coaching legend Sir Alex Ferguson once said, ‘There's no one bigger than the club’. This was to remain true for a long time. Nowadays, however, the traditionalists of football must admit that this sentence is no longer accurate. Manchester United found out for themselves that players can now be bigger than the club. Cristiano Ronaldo has 474 million more followers on social media than Manchester United. Following the announcement of Ronaldo's transfer, Manchester United lost 600,000 followers, and the new club Al Nassr FC

generated an increase in followers of around 1300% to 11.7 million. Of course, Cristiano Ronaldo is one of the best players in the world. Nevertheless, cases like these are not uncommon today (Jones, 2023). When Lionel Messi, Neymar, and Kylian Mbappe played for Paris Saint Germain (PSG), three players had more reach than the club. Accordingly, it stands to reason that players get more lucrative sponsorship deals than clubs due to their global recognition and reach. The biggest players have become the ‘face’ of brands, as in the case of Jack Grealish for Gucci, Ronaldo for Nike, or Messi for Adidas. They appear in television commercials, events, public appearances, and as part of modeling campaigns. These types of partnerships are usually exploited globally, as the players are known worldwide and have commercial value in many countries (Dr. Sogut & Khan, 2022). It has become abundantly clear that players build their brand and generate great success off the pitch and on it. Depending on how much insight they give into their private life or similar, their brand can be shaped according to their ideas.

Due to the players' advances, UEFA has fallen in place regarding influence and relevance as a stakeholder in the professional football industry. Gianni Infantino's transition from UEFA to FIFA has had an impact. As UEFA's general secretary, Infantino was the main driver of innovation in competitions at UEFA. For instance, he was responsible for the expansion from 16 to 24 teams at the UEFA Euro 2016 (Collett, 2014). He has been FIFA President since 2016, causing a loss for UEFA (FIFA, n.d.).

The professional football industry has embraced the digital era over the past twenty years. The globalization of marketing and the involvement of investors have transformed football clubs into major economic players and global brands rather than just sporting institutions. The primary objective is achieving a definite international brand perception, which necessitates the establishment of recurring revenue streams within international markets. Summer training camps and occasional friendly matches against international clubs are insufficient. Club managers have realized that high-profile players can be more recognizable brands than the clubs they represent. Dr. Sogut's 2022 report emphasizes that clubs aim to sign players who can provide sporting benefits and those with global profiles to benefit from their worldwide reach.

This results in added commercial value as it attracts the attention of new sponsors (Dr. Sogut & Khan, 2022). For instance, the arrival of Messi at PSG increased the club's appeal to prominent sponsors. In such instances, clubs' endeavor to create agreements with players for

their image rights to take advantage of any business contracts formed by the player. This is demonstrated by the fact that 60% of major brand sponsorship deals, such as Adidas, Nike, Puma, and Under Armour, are made with individual players rather than clubs, leagues, stadiums, or competitions (Dr. Sogut & Khan, 2022). For example, in Figure 11, we see the impact of Cristiano Ronaldo's move to Juventus Turin in 2018 on the club's commercial income. The move back to Manchester United in 2020 also shows a significant increase in commercial income.

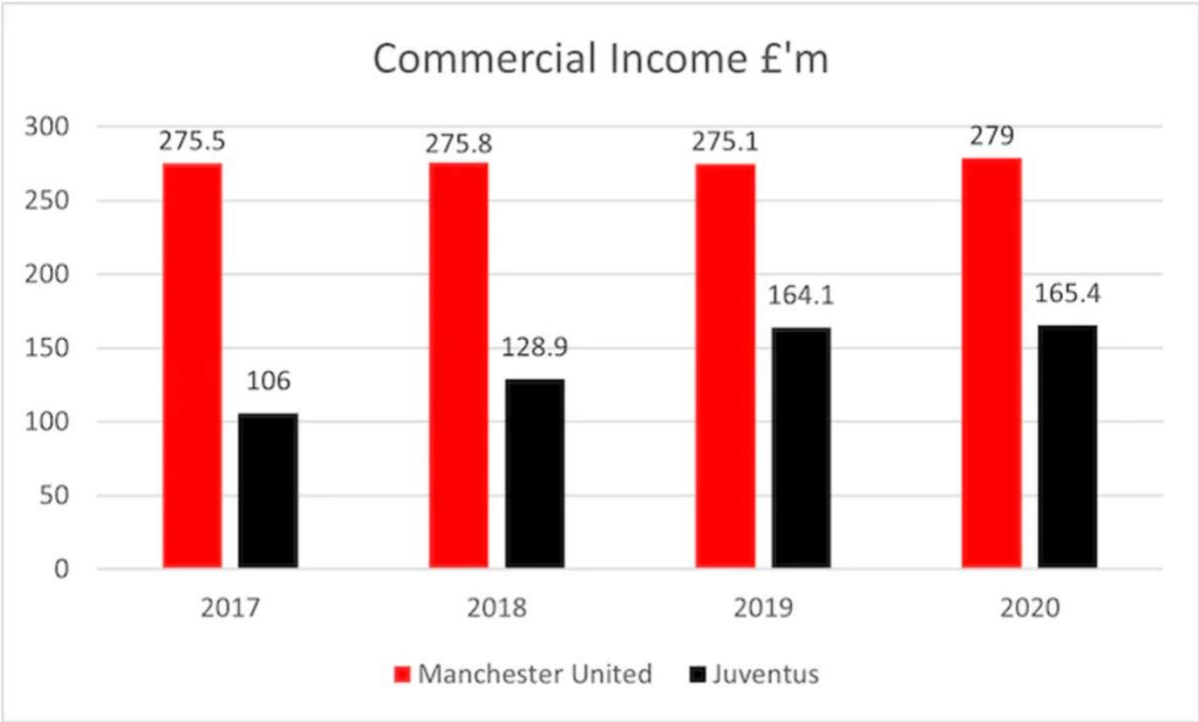


Figure 11: Cristiano Ronaldo's influence on commercial income of the clubs: (Dr. Sogut & Khan, 2022)

In addition, digitalization is creating new markets that can be occupied by the clubs and thus differentiate the clubs' business model. As a result, many clubs have recognized the potential of eSports (Lefebvre et al., 2023). An increasing number of clubs integrated eSports teams, some of which even bought in well-known streamers to represent the new clubs' eSports teams (SFG, 2022). This strategy promises to attract new fans through the reach of the streamers and, thus, a stronger brand identity and image. In addition, a new revenue channel was created, as new sponsors and licenses could be marketed through the new marketplace (Ivanov, n.d.). The virtual Bundesliga was launched in 2012. However, the VBL Club Championship, in which 29 clubs from the first and second Bundesliga now compete, has only existed since 2018

(Lobach, 2023). Such innovative initiatives indicate a growing acceptance of digital progress and increased professionalism within the football industry and clubs.

The range of entertainment options is expanding, making it increasingly appealing for fans to track their clubs' activities across multiple social media platforms. Particularly, exclusive content is highly sought-after by supporters who look to the clubs themselves for this. Crucially, clubs are the only ones able to provide behind-the-scenes glimpses of their teams daily. Additionally, clubs, including Chelsea FC, offer bespoke interactive applications to deliver their fans exclusive reports of live matches, statistics, and other pertinent information (Chelsea, 2023). Social media platforms and the previously mentioned applications allow interactions and exclusive insights, such as voting, Q&A sessions with players, or gamified elements (Chelsea, 2023). Moreover, clubs leverage digital innovations such as augmented reality (AR) and virtual reality (VR) to provide supporters with a more immersive experience. Virtual stadium tours and augmented reality match experiences can deepen fans' sense of belonging (FC Bayern München, 2023). The quality, the degree of exclusivity, and fan engagement are very important for the fans. Consequently, the fan experience and engagement have expanded significantly alongside the traditional matchday experience.

It is clear, however, that football fans are more than passive spectators or consumers of football. They have the means to impact the industry. Besides having an influence on the team's performance by giving them support, a multitude of fans are bound by tradition and regard football as a sport made for fans, not the media or investors, and believe that it must not be governed by money (Ajman et al., 2022; Henry, 2020). This is why innovative ideas such as the European Super League are suppressed with protests and have not been implemented, at least not yet. However, as experience has shown, most UEFA or FIFA projects are ultimately implemented.

Today, media fragmentation has reached its peak in 2023. In the past, all matches were bundled with one provider. Today, the end consumer needs many different subscriptions to watch all soccer matches from the regular league, UEFA Champions League, Europa League, cup competitions, etc. Streaming platforms such as Amazon and DAZN secured some rights and have been broadcasting matches from various competitions since 2018. This means soccer fans must get used to it (DPA, 2019).

This fragmentation in the German market is since streaming services are allowed to interfere in the TV rights market and bid for rights, as the Federal Cartel Office has decided that at least two providers must have exclusive rights (Platschko, 2023). UEFA sells the broadcasting rights to the highest-bidding TV provider or streaming service (DPA, 2019). However, the streaming services' bidding is not economically sustainable. DAZN, for example, has already had to drastically increase its subscription prices as the costs for the broadcasting rights do not cover the subscription income. It is uncertain who will have the broadcasting rights (Sobolewski, 2023).

Digitalization has considerably expanded and changed the advertising space and possibilities. Virtual advertising has emerged during technical development. This digital advertising signal can be integrated into a television broadcast in real-time. Virtual advertising can be placed over existing advertising spaces or in 'free spaces'. During soccer broadcasts, empty spectator stands or advertising boards can be filled with virtual advertising. These advertisements are only visible to the viewers of the television broadcast (Kidd, 2018). Thanks to this technology, different target groups can be reached simultaneously with different advertising (Kidd, 2018). Virtual advertising can take various forms and can, therefore, be divided into different categories:

- Virtual perimeter advertising
- Virtual advertising on other surfaces
- Virtual ground advertising ('Field Paints')
- 3D animations (floating balls)

BVB was the only club in the Bundesliga to use virtual perimeter advertising in 2021. The multiplication of advertising spaces without creating additional surfaces enables several clubs to serve spectators in Europe, Africa, North and South America, and many parts of Asia with individual advertising messages during their matches (Lakshimi, 2021). It is aligned with the markets and consumer behavior of the respective countries. The target groups can be addressed in their national language. There are also many opportunities to enter new international partnerships and increase sales through new advertising partners. Another advantage is that the association's reach is increased, and a positive association is achieved in many countries (Kidd, 2018). Accordingly, digitalization has opened new markets for both the media and the clubs.



Figure 12: Virtual Perimeter Advertisement Example: (Kidd, 2018)

Now that the suspected FIFA scandals regarding the corrupt awarding of the World Cups to Russia and Qatar have become official, FIFA continues to see its reputation severely tarnished. Efforts to restore its reputation could have an impact on the perceived influence of the organization. Among other things, FIFA has undergone various structural changes in recent years, including leadership reforms and implementing governance measures. These changes were aimed at strengthening the integrity and transparency of the organization. Nevertheless, FIFA's influence remains and strongly impacts the global professional football industry (Panja & Draper, 2022).

The marketers' business model has changed significantly. The development has led away from marketing services and towards consulting. Back then, marketers such as Sportfive usually bought the rights in packages and marketed them independently. Nowadays, long-term marketing contracts with marketers such as Sportfive are avoided, as the clubs want to retain control and as already mentioned, have acquired the expertise for distribution. Today's business is characterized by marketers acting as consultants. If they bring an advertising partner together with clubs, the marketers have a closer relationship with the advertisers. Compensation is now expressed in the form of commissions. If, in rare cases, there are still long-term marketing contracts with clubs, they no longer have the financial value they had 20 years ago. The relevance and influence of marketers have, therefore, decreased dramatically.

In addition to the revolutionary advertising possibilities of data collection and the associated change in training methods, the Video Assistant Referee (VAR) has been integrated as a new digital tool for referees. The VAR can significantly influence the course of matches (Das & Damle, 2023). An additional referee sits away from the pitch in the so-called ‘video cellar’, who can review controversial match situations and, if necessary, intervene in the game if a clear wrong decision is made. In Europe's top 5 leagues - consisting of the Bundesliga (Germany), Premier League (England), Serie A (Italy), Ligue1 (France) and LaLiga (Spain) - VAR was used for the first time in the Bundesliga and Serie A in the 2017/18 season (Holder et al., 2022).

Awareness of sustainability is now very present in the professional football industry. The clubs are setting up a differentiated and sustainably successful business model to remain liquid in the long term. To this end, they are trying to be ecologically sustainable with various measures. This includes conscious water use and reduced CO₂ emissions by traveling by team bus instead of always flying. However, what clubs have no influence or control over is how fans travel to matches. Whether the public transport provided by the club is used is up to the fans. In addition to responding to environmental concerns, the clubs have introduced several more sustainable practices. They are increasingly seeking to source resources from local sources. Recycling programs have been introduced that include collecting and processing fan-generated waste around stadiums and recycling materials such as plastic and cardboard. The clubs also aim to optimize waste recovery, such as turning grass clippings into compost and encouraging the reuse of paper waste. The clubs are also looking into renewable energy options, such as installing wind turbines or solar energy on the roofs of stadiums. However, the extent of the impact on the planet is not easily measurable (Jenkins, n.d.).

Regarding social sustainability, football is still trying to create a community. This includes everyone who wants to belong, regardless of origin, appearance, or faith. (FIFA, 2022). However, the disregard for human welfare in Qatar and the numerous fatalities resulting from inadequate labor conditions for migrant workers are being overlooked. FIFA views the hosting of the World Cup in Qatar as a constructive step in highlighting the poor conditions prevalent in the country and promoting improvements. Nevertheless, no tangible measures are being taken, and careless working environments prevail, particularly in the construction of stadiums (Babar, 2022).

To conclude the 20-year development, the relevant stakeholders in the professional football industry are organized according to their identified relevance and influence and the associated key control points in the following graphic. The blue fields show the strategic control points, while the green fields represent the technical control points.

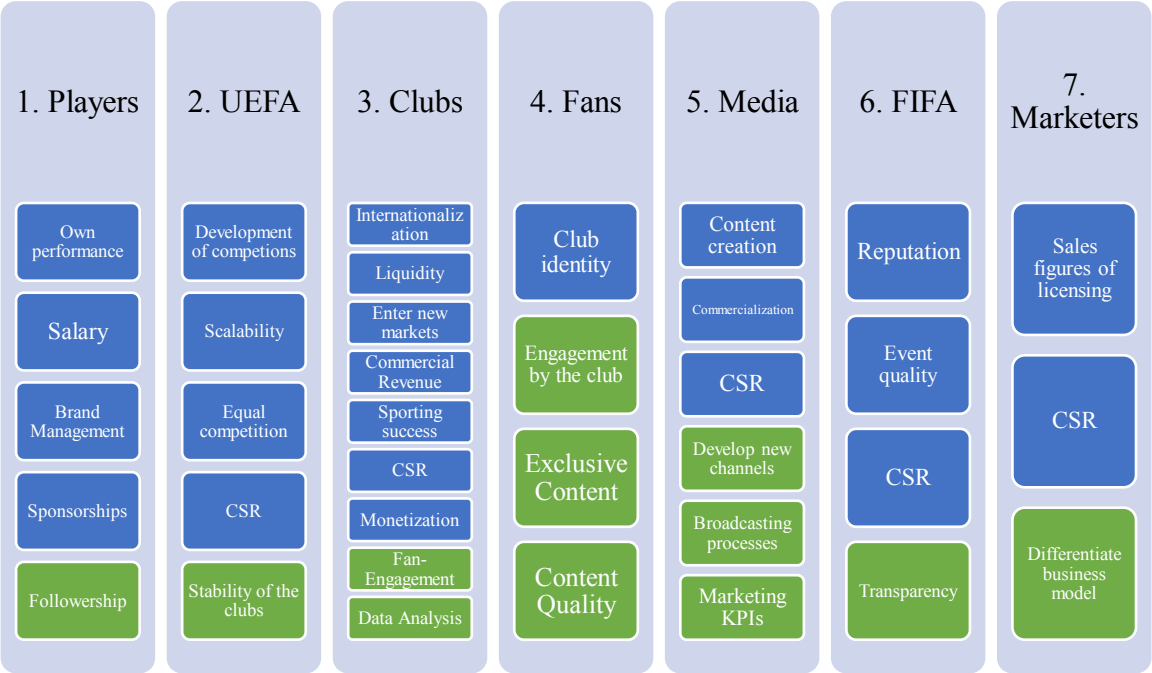


Figure 13: Stakeholder & Control Points Ranking Matrix: Professional Football 2023, own visualization

Again, as defined in Chapter 2.2, the matrix provides a more in-depth overview of the professional football industry. The stakeholders are placed in the matrix according to their alignment with the strategic or technical control points and how they capture value.

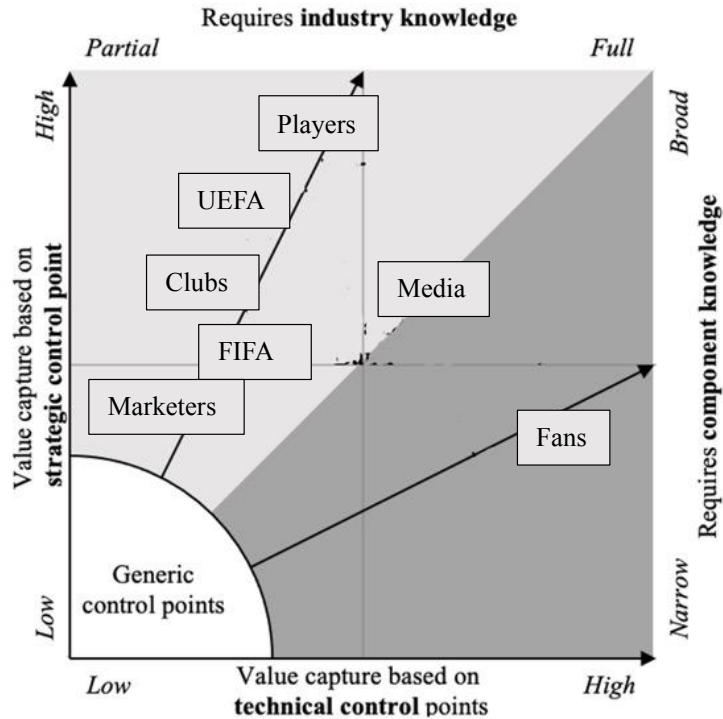


Figure 14: Control point dependence of value capture in digital business ecosystems - Professional Football Industry today

4.5. Key differences

The last 20 years have significantly transformed the professional soccer industry. We have moved from traditional marketing methods and a limited digital presence to an era of global streaming platforms, comprehensive data analytics, and a strong focus on CSR. The main differences are visualized in Figure 15. The stakeholder hierarchy has changed significantly over the last 20 years. Stakeholders who benefit more from digitalization and have profited from the opportunities for new business models now dominate the professional football industry. It is striking that the stakeholders have remained the same, but their influence and relevance in the hierarchy have changed. As a result of the new business opportunities and business processes, new control points have developed accordingly. The corresponding control points are illustrated in Figures 7, 9 and 13.

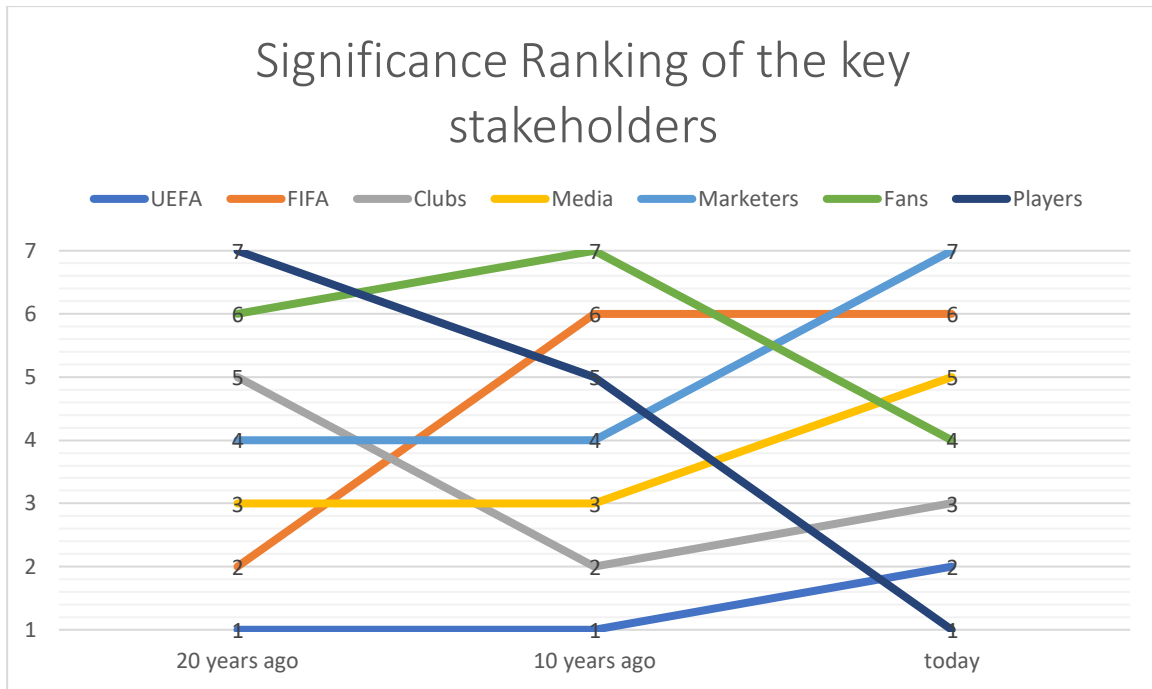


Figure 15: Significance Ranking of the key stakeholders, own visualization

The development of the control points is also visualized in a timeline in Figure 16 to show the change in significance and the creation of new control points, which became necessary between 2003 and 2023 due to digitalization and sustainability awareness.

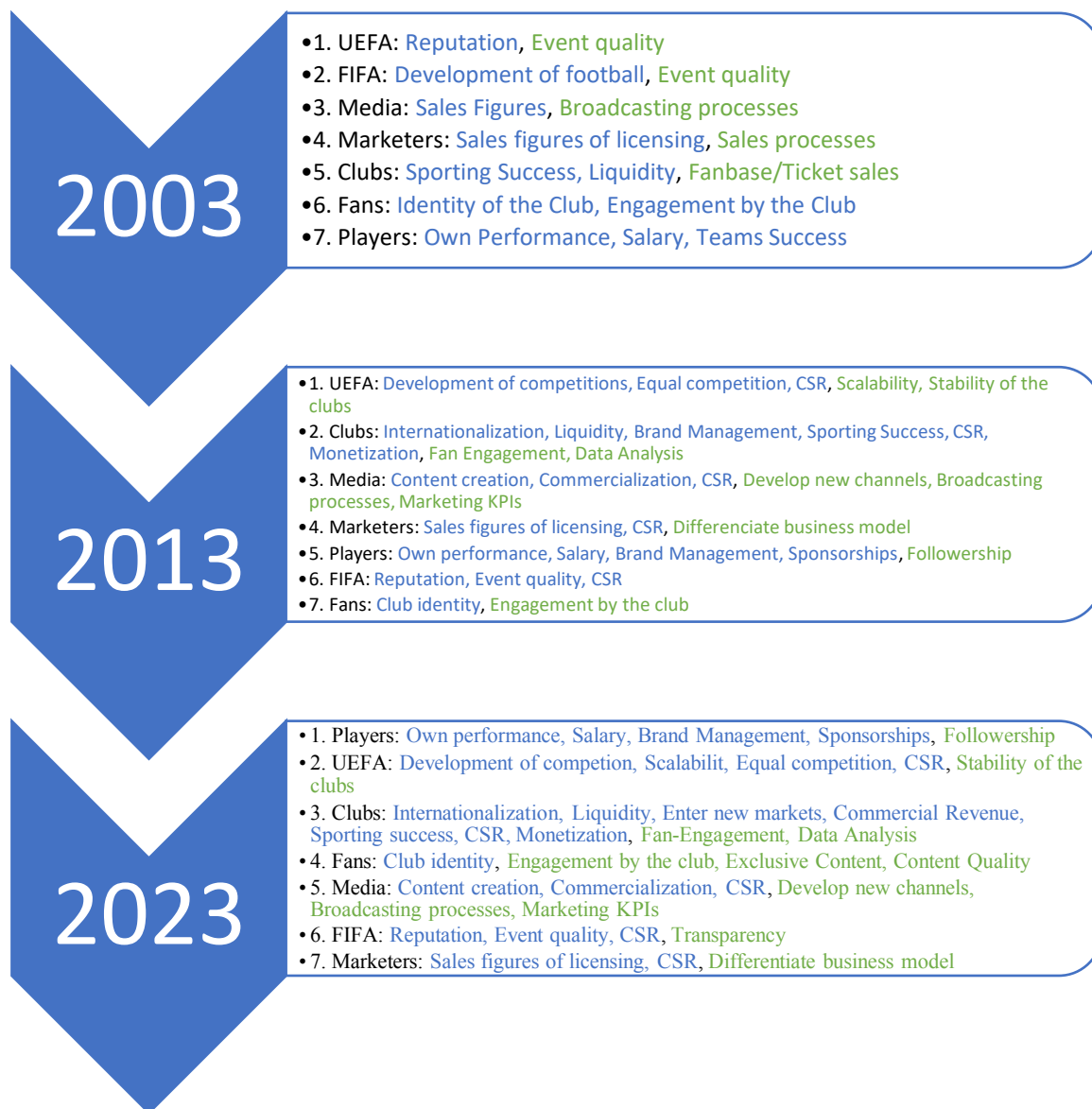


Figure 16: Development of the control points of the individual stakeholders, own visualization

4.6. FC Bayern München Success Case

This chapter uses the example of FCB to illustrate how a club can assume a leading position in DBE professional football. It describes the resources that need to be used and the impact of digitalization, innovation, and sustainability. The results are mainly derived from the interview with Interviewee No.2. During his various positions at Sportfive and as Head of Marketing at Hamburger SV over the last 20 years, he has had many direct contact points with FCB. Interviewee No.2 is ideally suited to analyze FCB as a success case.

4.6.1. FC Bayern München leading position in the industry

The history of FCB's success began very early on. The fundamental element for the leading position in DBE professional football is, by far, sporting success. Recurring and now predictable success makes long-term planning and budgeting much easier for all processes. This is made possible by the national championships in almost all seasons and participation in the highest international competitions (Transfermarkt, 2023). Consistent and long-term sporting work has ensured that FCB has always had more financial resources than the competition, enabling the club to pursue a different strategy. FCB has never had good youth work or academy activities because they know very well that transitioning from youth soccer to professional soccer in a club is incompatible with FCB's format. Exceptions are special rare talents.

However, the crucial question is why FCB had these resources available. They started to market and internationalize the club very early on. With Uli Hoeneß in charge, they were one of the first clubs trying to integrate the club as a brand with merchandising and marketing. FCB recognized early on that it needed to meet the needs of fans at a national level and expand its fan base internationally. The advent of digitalization occurred at an opportune moment. Digitalization opportunities, such as social media and the general expansion of media culture, were the ideal tools to implement FCB's strategy (Baena, 2019). Opening the New York and Shanghai offices has further strengthened the company's international presence to win new fans and strengthen international partnerships (D'Amico, 2017).

While expanding and commercializing, other clubs did not even have marketing rights and had no advertising or sponsorship income apart from shirt sponsorship. From then on, FCB made sure not to have any external marketers but to build up everything and thus not have to give up any profits. With these accumulated resources, they have structured themselves well within the club and bought the best players from their competition. Through this transfer strategy, they have either strengthened themselves or at least weakened their best rivals. These actions have allowed them to develop a permanent gap in the competition. With this gap, the focus of competition has shifted over time. They wanted to match the level of the European elite clubs such as Real Madrid, FC Barcelona, and Manchester United. At this point, it helps to look at the 'Level-Hierarchy-Pyramid' of the different clubs within DBE professional football in figure 17, which was created with the help of Interviewee No.2. The pyramid helps to understand the financial spheres in which the various clubs operate. It also illustrates who dominates the industry both in sporting and financial terms.

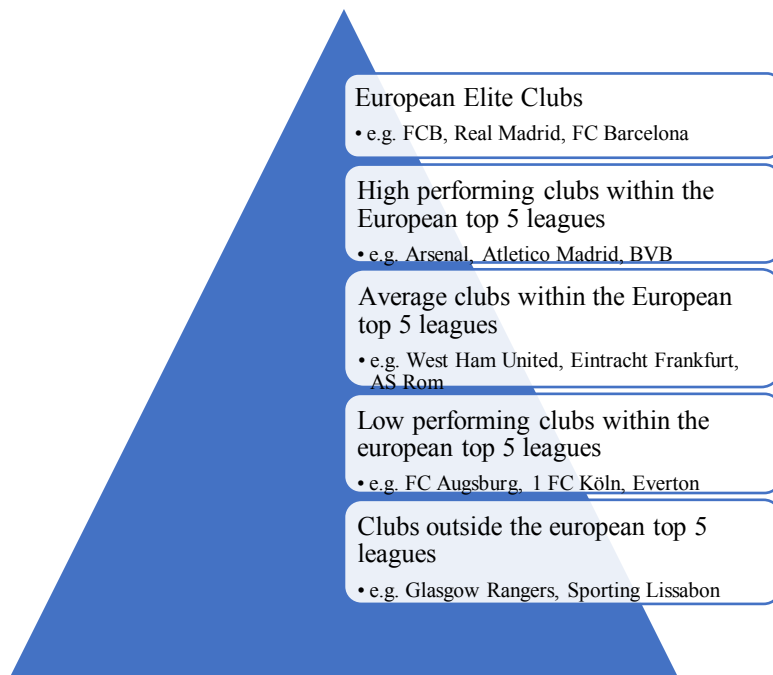


Figure 17: Club-Level-Hierarchy-Pyramid

It can also be used to explain the transfer strategy of clubs. The shift in focus and the development of ambitions have also led to a shift in FCB's transfer strategy. Every transfer strategy must aim to sell your players to higher-level clubs to increase your resources and move up a level yourself. FCB has now reached the level of the European elite clubs and is, therefore, also buying players from clubs at their level. Therefore, FCB is using the development of football and modern player training to its advantage by signing professionally completed players, widening the gap to the national competition, and closing in on the European elite. Clubs that understand this model can operate profitably. FCB was one of the few clubs that understood and implemented it early.

Accordingly, FCB understood well in advance how to prioritize the modern control points of brand management, fan loyalty, commercial revenue, and tapping into new markets to run the club like a profitable business. Nevertheless, it must be noted that the key to the strategy that FCB has been able to implement has always been sporting success.

4.6.2. FC Bayern München digital strategy

As already mentioned, FCB started using the digital potential for itself at an early stage. As a result, FCB has been voted the digitalization champion in Europe. Social media was

integrated into the digital strategy to reach the level of Real Madrid, FC Barcelona, and Manchester United, not only in sporting terms but also in terms of brand identity and brand image. The trend began in the late 2000s and became an optimal strategy for expanding the club's brand nationally and internationally (Wulf et al., 2017). This includes creating content that communicates the club's brand identity and image, engaging and interacting with local fans on the one hand, and addressing the different regions internationally on separate accounts using the respective language (Fleischmann & Fleischmann, 2019). As a result, FCB 2022 was voted the digitalization champion by the study conducted by Nexum AG in cooperation with Kicker Business Solutions (Linkesch, 2022).

FCB Media Director Stefan Mennerich said: *“We’re delighted by this award. Our goal is to reach our fans all over the world, and this works brilliantly via our club platforms. As digitalization becomes more and more important in our daily lives, as well as in the world of football, we will consistently continue on this path.”*

The study's key evaluation factor was the digital offering's international focus. The study assessed the top 20 European clubs in the FIFA Ranking in six categories: FCB came out on top in the ‘Online Shop’ and ‘Professional Networks’ categories and was awarded the silver medal in the ‘Website’ and ‘Social Media’ categories. The club also ranked in the top third for ‘Marketing Spread’ and ‘E-Sports’ (FC Bayern Munich, 2022).

VR fan engagement activities are particularly valuable for fans who follow the club from afar. They can understand the club's surroundings from a distance and feel more engaged (FC Bayern München, 2023). FCB has also integrated digital data analysis into its training and scouting strategy to constantly improve its players and modernize the overall training and scouting process (Marković et al., 2020). Since FCB has always marketed itself, another positive aspect of digitalization is that it benefits accordingly from the fragmentation of the media and the exponentially growing marketing and sponsorship opportunities that come with it.

4.6.3. FC Bayern München sustainability strategy

Regarding CSR, FCB has positioned itself broadly and has always tried to act economically, environmentally, and socially sustainable. The economic measures described above are why FCB is considered a pioneer in economic sustainability. They are more profitable

than most clubs, even at their level, as their revenue from matchday and stadium operations is substantially higher than that of their national and international competitors. This is reflected above all in the example that FCB generates more revenue than the best English club, although three times as much TV money is paid out in England than in Germany (Zeppenfeld, 2023). However, economic sustainability is also important since they use digital resources to expand the international brand. They also always work exclusively with elite companies, both nationally and internationally. On the one hand, this includes the reputation of the companies, but above all, the strategic design of the partnerships. With Deutsche Telekom, they have a partner at their side that is not only a market leader but also a pioneer for digitalization and innovation (Bresgen, 2022).

Another economically sustainable aspect is that they operate all processes according to the direct-to-consumer (D2C) principle. As mentioned, FCB has never had any significant external marketers; instead, they handle distribution, etc., to keep all profits for the club. This also applies to the merchandising process. Starting with the supply chain, FCB creates the designs independently and sources them from producers. All stores' shipping, storage, and operation are also carried out in-house, which leads to strong verticality and significantly higher profits.

Since 2020, FCB has published an annual EMAS environmental statement, which includes all the steps in setting up an environmental management system per the EU Eco-Management and Audit Scheme (EMAS). The statement is made available to the public and validated by an external auditor. The structure of the FCB's environmental management system is visualized in Figure 18.



Figure 18: Environmental Management System (adapted from EMAS FC B, 2022)

This statement transparently presents the environmental aspects and effects of the environmentally relevant consumption data. This includes CO₂ emissions, waste fractions, total energy consumption with percentage breakdown, natural gas consumption, and water consumption. In addition, the data from previous years will be compared, and the actions taken will be measured and evaluated. In addition, the current and future partnerships with environmental companies to optimize the environmental program will be presented (EMAS FCB, 2022).

FCB has achieved social sustainability internationally by opening New York and Shanghai offices. With the opening of the FC Bayern Football School Shenzhen, the club is particularly committed to supporting the younger generation and giving them access to education and football (D’Amico, 2017). FCB is also committed to nationally promoting community spirit, inclusion, and anti-discrimination (Fleischmann & Fleischmann, 2019).

All of this leads to a strong, independently built, and, above all, independent structure, which plays an essential role in FCB generating large revenues and profits. Based on these results, the relevant control points of the FCB are identified in Figure 19. Ultimately, it is not a

product of chance that FCB has built up. The FCB business model has been planned over the years, with sporting success as the fundament for all subsequent successes.

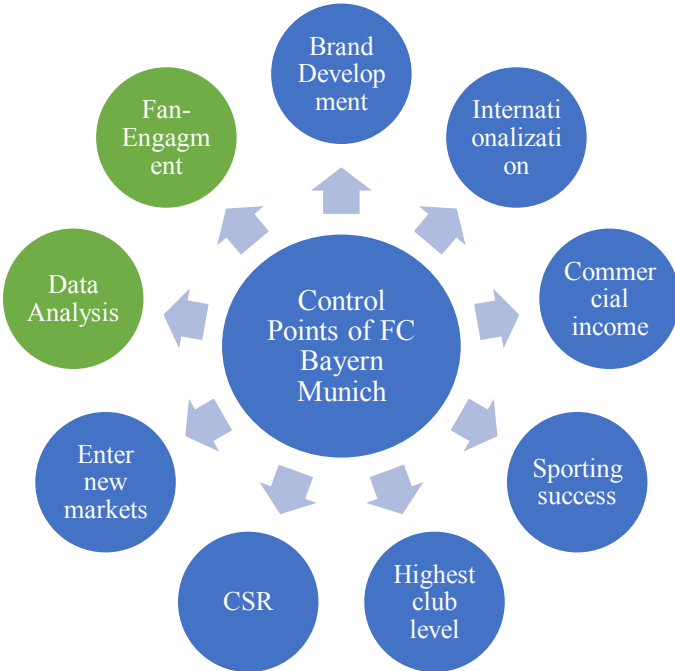


Figure 19: Control Points FC Bayern Munich, own visualization

5. Discussion and Conclusion

5.1. Answering the Research Questions based on the results

This chapter now discusses the extent to which the previously defined research questions can be answered based on the results.

Research Question 1: How are the key stakeholders affected by the integration of digital strategies and sustainability requirements, and how they contribute to its competitive advantage, particularly in the context of European elite Club FC Bayern Munich?

Research Question 1 can be answered as follows. The key stakeholders in DBE professional football have remained the same over the last 20 years. However, the hierarchy of stakeholders has changed significantly. The stakeholders could be identified as follows: FIFA, UEFA, media, marketers, players, clubs, and fans. Twenty years ago, the industry was less globalized, with FIFA and UEFA being the central stakeholders responsible for organizing major events like the World Cup and the UEFA Champions League. The control points were

strategically focused on event quality, financial performance, and social impact. Technical control points related to the events' reach and technical processes, like spectator numbers and television ratings, played a crucial role.

A decade later, their influence and relevance shifted while the key stakeholders remained constant. UEFA maintained its dominance with new initiatives like FFP to ensure financial stability within clubs. The Bosman ruling had long-term effects on club commercialization and globalization efforts, with clubs stepping up their efforts to globalize and commercialize through international friendlies, merchandising, and branding. The media landscape began to fragment due to technological advances and changes in consumption behavior, leading to increased digitalization and new revenue streams for clubs.

Today, the hierarchy of stakeholder relevance has drastically changed due to digitalization. Players have become influential stakeholders with the potential to be bigger brands than the clubs themselves, exemplified by Cristiano Ronaldo and Lionel Messi's social media influence. The clubs have embraced the digital era, with digitalization creating new markets like eSports and transforming clubs into major economic players and global brands. This shift emphasizes the need for recurring revenue streams within international markets and the potential of high-profile players to attract new sponsors.

The hierarchies' development between 2003 and 2023 can be seen in Figures 8, 10, and 14. Nevertheless, apart from the clubs that understood the change early on, such as FCB, few clubs have managed to establish a differentiated business model to succeed sustainably. FCB has succeeded in increasingly widening the gap to the competition through an independent structure, early recognition of digital potential, emerging new business markets, and sporting success as a basis. The first bold statement formulated by Interviewee No.1 is based on these results:

"Apart from clubs like FC Bayern Munich, not many have managed to run the club as a profitable company, despite the focus on financial success and viewing the clubs as a business model".

Using FCB as an example, we have discovered that by identifying and establishing an independent and individual structure early on, it is possible to benefit from digitalization both

financially and in terms of sports to gain a competitive advantage. In addition, the brand identity and brand image are strengthened by consistently pursuing CSR as well as an internationalization strategy. To do this, it is important to identify and measure the control points to make progress controllable.

However, it should also be noted that if the gap between the entire national competition and a single club is that large, FCB's leading role in the professional football industry must be seen as an exception, as it is almost impossible to catch up due to the early modern structuring and implementation of digitalization. It is difficult for competitors to establish similar structures retroactively to shorten the gap in the long term. Therefore, the statement of Interviewee No.1 must be confirmed, as the large gap between FCB and the competition is too large to speak of several profitable companies/clubs.

Research Question 2: To what extent can sustainability be fully reconciled with success in the professional football industry?

Research Question 2 can now also be answered based on the results. Based on the analysis of the professional football industry over the last 20 years and the analysis of FCB, economic sustainability is essential for success and a competitive advantage in both sporting and financial terms. Regarding environmental sustainability, apart from the clubs' energy consumption, hardly any influence can be exerted on the industry in the broader sense. Many clubs act and establish environmental management systems, such as FCB in Figure 19, to optimize their energy consumption, etc. However, the clubs can't control how fans get to the stadium and how sustainably they behave there. In this respect, the second bold statement put forward by Interviewee No.1 should be considered:

"The purpose of clubs is to achieve sporting success and be economically successful, not to make the planet a better place. Both cannot be reconciled purely in sport."

Based on the collected results, this statement can also be confirmed, as the DBE of the professional football industry is too complex, and the focus is strongly placed on sporting and financial success. Social sustainability is an important tool for reputation, as it strengthens brand identity and brand image at national and international levels. In addition, social added value is created by promoting youth, inclusion, and tackling discrimination, as with FCB's actions. It

can, therefore, be stated that not all CSR aspects can be optimally implemented. Still, economic and social sustainability significantly impact long-term success in DBE professional soccer.

5.2. Academic Implications

This thesis presents a comprehensive theoretical analysis of the various insights and opportunities that have arisen with digitalization within DBE professional football. It analyzes how digital business models and sustainable measures can be integrated for the key stakeholders. It also determines how these measures are compatible with success or can even result in a competitive advantage. The years 2003-2023 are examined intensively regarding these questions. This analysis is based on available literature, practical examples, and expert interviews. With the help of these resources, it can be determined that not all aspects researched can be implemented optimally. Nevertheless, an attempt should be made to optimize all aspects, as they are directly related to the success of the key stakeholders.

5.3. Managerial Implications

The results indicate that a competitive advantage for clubs can be realized with continuous work both on and off the pitch. To achieve this, the management of clubs constantly needs to move with the times to identify emerging business models. These can arise because of new digital opportunities or social developments. Clubs should act accordingly because of their CSR to be successful financially and in terms of social and environmental sustainability. The results show that recognizing the potential of digitalization and sustainability early can provide a competitive advantage, as FCB has proven. However, it is important to remember that such a strategy can only work if sporting success is guaranteed.

5.4. Limitations

The limitations of this scientific work are shown below. Aspects of subjectivity can distort the selected method approach. By conducting semi-structured interviews, subjective opinions can be incorporated into statements, distorting the results. Although the validations obtained allow the assertion and the interviews were conducted in detail, the opportunity to conduct interviews with relevant experts was unfortunately limited. Many of the experts' statements were confirmed by secondary data. However, due to the topicality of the issues, access to current literature is limited.

5.5. Future Research

Future research should continue to use insights from expert interviews to gain a better understanding of the industry. Meaningful results can be achieved through qualitative research validated by secondary data. Quantitative research can also be considered if stakeholders such as fans are to be researched more deeply. In conclusion, a mixed methods approach is necessary to research the professional football industry as a DBE.

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