

**HHL**LEIPZIG
GRADUATE SCHOOL
OF MANAGEMENT

HHL Working Paper

No. 191 March 2021

Identifying Football Management Variables that Lead to Sustainable Success in Professional European Football Clubs

A Literature Review

Johannes Philipp Schregel^a, Jacqueline Marie Cruz^a and Henning Zülch^c

^a External Doctoral Student at the Chair of Accounting and Auditing at HHL Leipzig Graduate School of Management, Leipzig, Germany. Email: johannes.schregel@hhl.de

^b Prof. Dr. Henning Zülch is Holder of the Chair of Accounting and Auditing at HHL Leipzig Graduate School of Management, Leipzig, Germany.

Introducing the broader topic of football and its vast influence on culture and society, the question of sustainable success is at a tipping point. The football industry has grown to supply substantial monetary value to its respective national economies and continues to provide society with one of the most influential past-times in history. Yet, the sport is under tremendous focus more than it already was as the Coronavirus pandemic forced leagues around the world to redesign operations and to adapt to the situation. Under normal circumstances, clubs need to focus on making efforts sustainable and long-lasting; however, under extreme conditions, sustainability is more necessary than ever, therefore, making a case for shifting emphasis from critical success factors (CSFs) into sustainable success factors. In this Literature Review, CSFs in top European clubs were investigated to find significant associations between sustainability, success, and football company structure relating to management. Although existing research suggests there are few management frameworks proper to measure success in professional football clubs, there is one all-encompassing framework known to date that is the most applicable—the Football Management (FoMa) Q-Score (Zülch, Palme & Jost, 2020). The structure and main principles of the FoMa Q-Score were used as a foundation for this Literature Review and, therefore, four specific dimensions outlined in that framework were focused on when examining CSFs: Sporting Success, Financial Performance, Fan Welfare Maximization, and Leadership and Governance. The goal was to synthesize knowledge from existing literature not revealed in the FoMa Q-Score and to find key linkages, research gaps, and unsolved applications. Findings revealed there are more relevant factors that could strengthen each dimension and the overall framework, thus leading to practical application in professional football clubs and to a shift to sustainable success factors.

Table of Content

List of Figures.....	II
List of Abbreviations	III
I. Introduction	1
II. Basic Information.....	2
<i>II.1 Relevance</i>	2
<i>II.2 Purpose, Focus, and Goal</i>	5
<i>II.3 Coverage and Organization</i>	5
<i>II.4 Audience and Perspective</i>	6
III. Research Methodology	6
<i>III.1 Framework Criteria</i>	7
<i>III.2 Research Questions and Terms</i>	10
<i>III.3 Descriptive Analysis and Distribution of Literature</i>	12
IV. Findings on Determinants	14
<i>IV.1 Sporting Success</i>	14
<i>IV.2 Financial Performance</i>	17
<i>IV.3 Fan Welfare Maximization</i>	21
<i>IV.4 Leadership and Governance</i>	26
V. Practical Implications and Further Research	30
VI. Conclusion.....	34
VII. Reference List	IV
VIII. Appendix.....	XVIII

List of Figures

Figure 1: Framework Criteria (Own Illustration).....	9
Figure 2: Search Terms (Own Illustration)	11
Figure 3: Distribution of Literature by Dimension (Own Illustration)	13
Figure 4::Distribution of Literature by Type (Own Illustration).....	13
Figure 5: Determinants on Success Factors (Part 1 of 2) (Own Illustration).....	31
Figure 6: Determinants on Success Factors (Part 2 of 2) (Own Illustration).....	32
Figure 7: Specific Areas of Further Research (Own Illustration)	36

List of Abbreviations

BL.....	Bundesliga
BL 2.....	Bundesliga 2
BSC.....	Balanced Scorecard
CLV.....	Customer Lifetime Value
CSF.....	Critical Success Factor
COVID-19.....	Coronavirus Disease 2019
CSR.....	Corporate Social Responsibility
DACH.....	Germany, Austria, Switzerland, Lichtenstein
DFL.....	Deutsche Fußball Liga (German Football League)
DMU.....	Decision-making Unit
FC.....	Football Companies
FIFA.....	Fédération Internationale de Football Association
FFP.....	Financial Fair Play
FoMa.....	Football Management Q-Score
FWM.....	Fan Welfare Maximization
GOU.....	Game Outcome Uncertainty
GT.....	Grounded Theory
IPO.....	Initial Public Offering
KPI.....	Key Performance Indicator
L&G.....	Leadership and Governance
PESO.....	Paid, Earned, Shared, Owned Media Model
ROI.....	Return on Investment
SD.....	Sugar Daddy
SNS.....	Social Networking Sites
UEFA.....	Union of European Football Association

I. Introduction

With fans totaling over half of the global population (Kaneda & Dupuis, 2017; Giulianotti, 2012) and one of the world's top cultural, social, and political influencers, football has been played for centuries and speaks to every language and generation. Football is "...the only truly global game, played by every country...and is one of the few phenomena as universal as the United Nations" (United Nations, 2006). The worldwide sport is the intersection of socio and economic boundaries, can permeate national, religious, and cultural borders and is a universal language that can unite people. Numerous books explain the broad history of world football (Bar-on, 2014; Foer, 2006; Syzmanski & Kuper, 1999; Kuper & Syzmanski, 2014; Goldblatt, 2008; Dubois, 2018; Galeano, 2013; Kuper, 2010). More than the 193 member states in the United Nations (Chasek, P.S., Wagner, L.M., Leone, F., Lebeda, A.-M. and Risse, N., 2016), the 156-year-old sport originating in England has 211 affiliate associations in the global football governing body called Fédération Internationale de Football Association (FIFA). The sport has grown to a 28.4-billion-euro industry in Europe alone (Deloitte, 2019) with Germany's Bundesliga (BL) being a world powerhouse and consistent leader since the league's birth in August 1963 (Eine Erfolgsgeschichte, 2012). Since then, the BL has excited billions of fans with its fighting spirit, technical game, deeply rooted traditions, and responsible policies.

Football success can be defined in countless ways, part of which is being able to consistently provide great products and services to all stakeholders—fans, players, technical staff, investors, partners, media channels and many more—requiring a sustainable approach in all areas. Success in social activities can include outreach through fan engagement, whereas for operations, good management means efficient productivity. Deloitte (2019) provides reasoning concerning the monetary growth and success of the European football market and states that "[The financial position] reflects the drive among leading clubs to generate ever greater revenues to fund success on the pitch and also the sustained efforts of Union of European Football Association (UEFA) to improve profitability and sustainability of clubs through Financial Fair Play and club licensing." This definition is all-encompassing because it includes success in sporting

as well as in club licensing relating to infrastructure, legal and financial areas (UEFA, 2019). As Hildebrandt (2014, p. 9) states: “neither the sporting nor the economic side can afford to profit at the expense of the other, hence, there needs to be an examination of all influential factors.” For example, albeit enormous player investments, positive game results, high table rankings and international competition birth were far from reachable for BVB Dortmund in 2014 or for Schalke 04 in 2018 (Weltfussball, 2019). Any other mid-to-low sized club would have perhaps collapsed, however, sustainable approaches and resilient business activities independent from sporting success carried both clubs through challenging times. Specifically regarding sport, Rydin (2011) states: “Sport is sustainable when it meets the needs of today’s sporting community while contributing to the improvement of future sport opportunities for all and the improvement of the integrity of the natural and social environment on which it depends.” In addition to sporting results, Deutsche Fußball Liga (DFL) (2019a) addresses sustainability as “...intelligent marketing of media rights, innovation leadership, milestones in sports technology, consistent digitalization, growing presence and licensing processes.” The aforementioned definitions encompass all major aspects of success in a football club and, therefore, for this paper are chosen as the primary descriptions of sustainable success and are used as a range for research.

II. Basic Information

The following section focuses on the relevance of football management success. Furthermore, the purpose, focus, and goal of the literature review will be explained along with the coverage, organization, audience, and perspective.

II.1 Relevance

The topic of football management success is relevant and applicable at a time when clubs are focusing on gaining a competitive advantage, when many regulations as well as internal processes in place to secure long-term sustainability of global football are at a tipping point.

The first relevant point is promoting sustainability and maintaining a competitive advantage, which require long-term plans, implementation of efficient processes and

optimal strategies—even with a lack of other sports as perfect substitutes for football (Szymanski & Smith, 2010). Sustainability is, therefore, about long-term development, evaluation, and innovation. In the last years, clubs have transitioned to business entity models, with modern yet traditional clubs no longer being just a football club, but instead thriving businesses that have extensive strategies, structures, and goals. Additionally, as the world is rapidly expanding by simultaneously becoming closer and denser, clubs are no longer staying in their home regions, as they recognize dedicated fans and valuable sponsorship opportunities can be found outside of home borders. It is now not enough to simply be a winning or profitable team; clubs need to internationalize and “...modernize in order to keep tradition” (Durstewitz, 2017).

The second point of relevance involves regulations and policies as part of modernizing the football landscape to create the foundations and guidelines for long-term success. Regulations from the BL, UEFA, or FIFA, for example, are closely examined and reviewed on a consistent basis to ensure outcomes are in the best interest of the club and football as a whole. Rules include financial reporting guidelines that took effect in 2019, making it easier for applying for and following UEFA Club Licensing, but also shows the positive financial status of German clubs as a whole (Zusätzliche Transparenz, 2019). As English clubs are bought by wealthy investors and criticized for commercialization, Germany’s 50+1 rule still has majority support due to its sustainable financial principles and strong values for traditional clubs. Though it is widely argued that the 50+1 rule can curb financial investments, limit club development, and restrict sporting results in international competition, discussions of alternative models with stricter financial policies and investment distribution requirements still seem to be open. Until now, ownership has been closed to majority investors, but the league has consistently sustained its growth as demonstrated by total revenue of 4.8 billion Euro in the 2018/2019 season (2020 Report, 2020, p. 16), a considerable and essential portion of the 21 billion euro total revenue among top European clubs (The European Football Landscape, 2018). An amendment to the 50+1 rule change the entry limitations and requirements of investors into the German football market while keeping the foundation of the original regulation could prove relevant, as Acero, Serrano, and Dimitropoulos (2017) state that German clubs appear to be the most

profitable and viable relative to other clubs in the Big Five Leagues due to strategic planning and long-term interests of clubs. In addition to investments for obvious sporting reasons, investors could bring capital for potential improvements in all areas—business operations, stadium renovations for fan experience or youth development infrastructure. Investors deliver not only extra funding, but also intangible collaborations, as in the examples of Liverpool FC and Paris St. Germain, respectively, but they can also require substantial financial requests to recoup investments. Irrespective of the actual form, an investor has the potential catapult a club financially and in many other areas if funds are properly allocated.

The last relevant topic as another catalyst for this Literature Review is the global pandemic surrounding the Coronavirus Disease 2019, or COVID-19. The effects on life in general pouring over to professional football have led to an abrupt shift in thinking and have significantly sped up the internal inspection process for all clubs. Within weeks, leagues around the world were halted, media revenue was frozen and the entire existence of the clubs making up the sport was put into question (MDR, 2020). With a dangerous mix of significantly decreased income, no future spectators and unknown restart date, football itself as a product was no longer considered the same. Multiple areas of football clubs—perhaps more correctly stated by Zülch, Palme, and Jost (2019) as football companies (FCs)—were affected. From suspended ticketing and hospitality operations due to a lack of fan-attended matches to reexamination of all financial expenditures and budgets due to incoming revenue holds, FCs needed to reassess the essentiality of all procedures. From the abrupt shift in thinking, all clubs were forced to reconsider internal activities and adapt to more sustainable practices from the operational, management and board levels. Sustainable management decisions can denote a decrease in expenses, abandonment of projects or a postponement of services. Of course, clubs cannot set all high-costing efforts aside, but instead need to carefully choose those which have the most direct, positive impact on short- and long-term goals. Additionally, the extent to which clubs can focus on sustainable activities and investments is questioned. As a majority of clubs are highly dependent on TV revenue—such as BVB Dortmund, which, for example, depended on 38% of its income on TV Revenues in the 2018/2019 Season (Klein, 2020)—the feasibility of reducing

independency on one source of income becomes debatable. Consequently, viewing football management before, during and after the COVID-19 period is therefore fundamentally different.

II.2 Purpose, Focus, and Goal

Identifying key factors in football management and further recommendations of specific areas of research—the details of which will be explained in Section 2.2 “Research Questions and Terms”—is the purpose of this literature review and will be used to focus on research outcomes and further practical application of those findings. Researchers aim to analyze existing empirical and qualitative research, to draw conclusions from the summarization of findings and to identify central and trending issues that show gaps in current research. In this paper, the most complete and all-encompassing football management framework, the Football Management (FoMa) Q-Score¹ (Zülch, Palme, & Jost, 2019), is utilized as a foundation for four major management categories in a professional football club. The goal is to prove further analysis of topics in the FoMa Q-Score that could lead an amendment or a reshaping of the framework and to contribute to the global football management sector by providing insight about operations and strategy in various divisions, regions, countries, continents and associations.

II.3 Coverage and Organization

According to the format stated by Cooper (1984) in Randolph (2009) the coverage will be an exhaustive review with selective citation due to the vast amount of data related to general management and football related topics not only in Germany, but also in the other Big Five League countries. This paper focuses on football management research in the four specific dimensions mentioned in the FoMa Q-Score and explained in the “Findings on Determinants” section. Additionally, new insight focused on a narrow scope between the findings in the FoMa Q-Score and the potential topics in the next paper, which covers exact amendments or changes to the framework.

¹ Management Quality of Professional Football Clubs: The Football Management Q-Score (Zülch, Palme, & Jost, 2019) is referred to for the remainder of the text as the FoMa Q-Score.

The review will be organized in a methodological fashion. In Section 1, the introduction follows the structure of Cooper (1988) and includes the purpose and focus, goal, perspective, coverage, organization, and audience. Following the structure of Hahn and Kühnen (2013), Section 2 includes methodology, criteria, research questions and terms, and distribution of literature and descriptive analysis. Likewise, Section 3 includes findings on the determinants of the topics in this Literature Review, football management—Financial Performance, Sporting Success, Fan Welfare Maximization (FWM) and Leadership and Governance (L&G). Section 4 entails Practical Implications and Further Research and synthesizes the findings to form new insights and new avenues of exploration. Section 5 shortly summarizes findings and presents a potential outlook for future investigation and papers.

II.4 Audience and Perspective

This literary review was written for an audience of scholars within football management and football industry professionals who are looking to apply theoretical knowledge in practice. The audience includes those looking to research and open dialogue in diverse topics of professional football.

One of the researchers has in-depth experience at football clubs as a professional player and communication manager in Germany. Both researchers have also taken appropriate steps to present all findings and outcomes objectively based on facts and not subjective opinion. Additionally, the researchers are located in Germany and, also due to their experience in football, have the most knowledge and understanding of the German football market.

III. Research Methodology

The methodology forming the meta-analysis includes grounded theory (GT) to compare journals, studies, and findings, as introduced by Glaser and Strauss (1967). In this literature review, valid reasoning for further research and analysis is provided based on the comparison of existing research and determination of causal linkages. A list in Microsoft Excel was compiled according to FoMa Q-Score dimensions to find common

themes among sources. Main themes of each source were examined and the significance—either positive, negative, or neutral—of each variable was determined. This followed Hahn and Kühnen (2013) and led to the visual representation of the determinants chart in Figure 5 in Section 4.

III.1 Framework Criteria

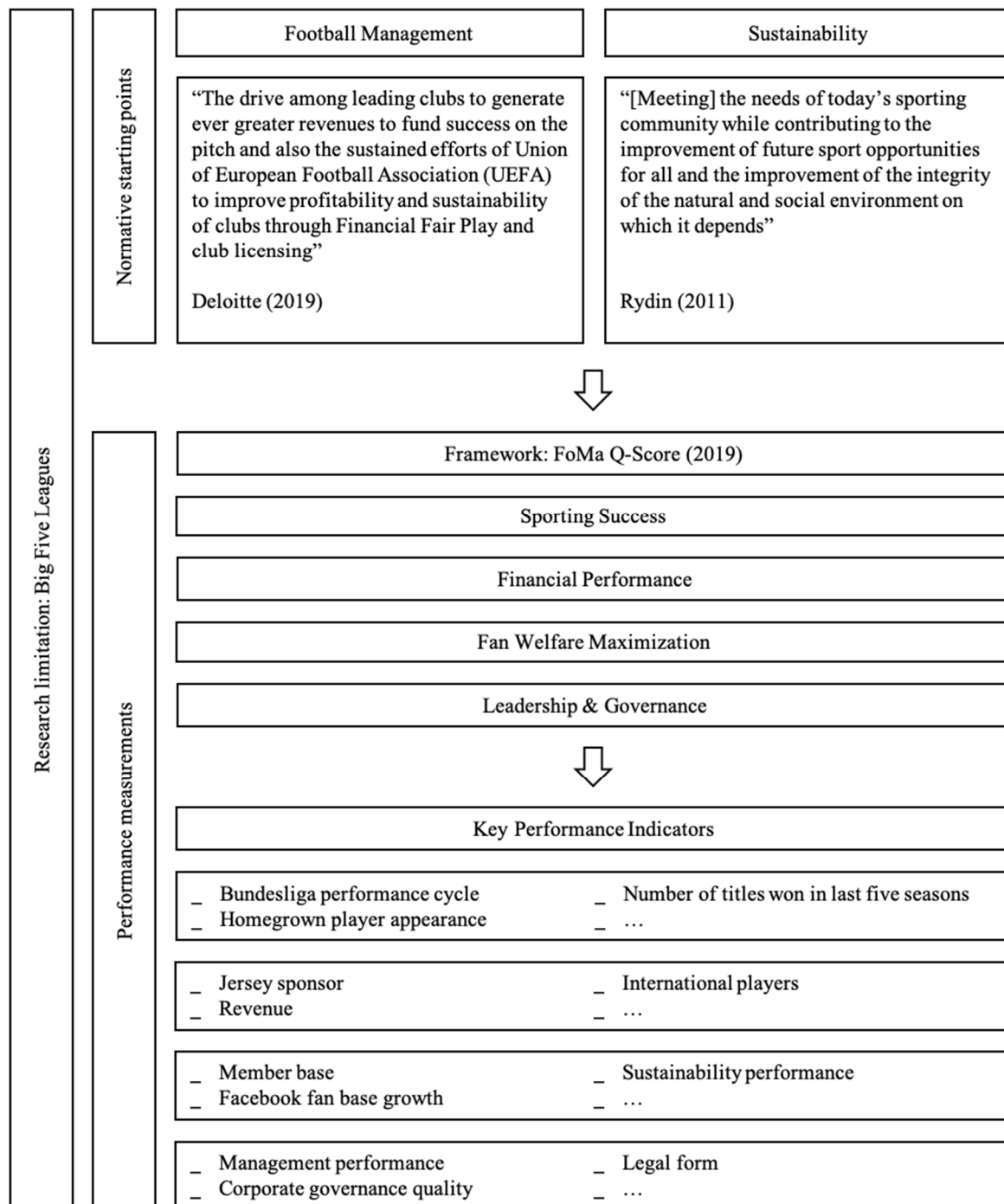
The main desired outcome for all clubs is positive sporting results, generating profit, long-term sustainable business in the long-term and international qualification, if applicable. To achieve any extent of these goals, each area or department of a professional club needs long-term sustainable approaches and tracking measures for development. Existing frameworks that have concretely measured management success include: Balanced Scorecard (BSC) (Kaplan, 2010), Public Sector Scorecard (Moullin, 2009), European Foundation for Quality Management model (EFQM, 2013) and Organizational Sustainability Performance Index (Hubbard, 2009). Additionally, the Business Model of European Football Club Competitions discusses advantages of UEFA's FFP ruling, but fails to give each factor a quantifiable weight relative to a club's overall health (Dima, 2015). Guzmán and Morrow (2007) built a detailed model measuring efficiency using Development Envelopment Analysis (DEA), however, it only analyzed Premier League clubs and focused on productivity of corporate decision-making units (DMUs). Dherbecourt and Drut (2009) also built a model to predict the relegated and promoted teams in the Big Five Leagues, but, despite correctly forecasting past club relegations, excluded general guidelines applying to entire clubs. All previous guidelines lack some important aspect making them relevant and applicable as a measuring tool for football business management. Consequently, the focus will be on one instrument that provides the most specific, in-depth measurement for football clubs—the FoMa Q-Score (Zülch, Palme, & Jost, 2019). The FoMa Q-Score is a framework quantifying the success of a football club on four dimensions: Sporting Success, Financial Performance, FWM and L&G. Similar to the main goal of the FoMa Q-Score framework which is "...to establish a model which impacts both academia and practice" and to "...close the gap in sport management literature" (Zülch and Palme, 2017), the criteria set by FIFA and UEFA also promote structured and sustainable

operations for clubs applying for licenses to participate international competitions (UEFA, 2019; Rikardsson & Rikardsson, 2013). Therefore, criteria in the UEFA and FIFA licensing requirements—sporting, legal, personnel and administrative, infrastructure, media and technical and financial—is also included when analyzing each of the four FoMa Q-Score dimensions. Figure 1 shows a breakdown of determinants starting from broad topics of football management and sustainability and narrows down to the framework encompassing the researched dimensions. It ends with internal key performance indicators² (KPIs) that measure success in each dimension. The breakdown follows the CSR reporting paper by Hahn and Kühnen (2013) presents a simple overview of main concepts and jargon of the paper. Due to the vastness of management frameworks, yet newly modernized industry of football management, the chart leads the audience from limitations and normative starting points to a specific framework and KPIs.

In order to have a relevant, meaningful result, a limitation is set. The first limitation that applies to each element in the chart involves analyzing leagues with a comparable structure to the German league, including promotion and relegation and international competition qualification spots. This was found to be almost every major football league except for Major League Soccer in the United States, the Indian Super League in India, Liga MX in Mexico, and a few other leagues. Secondly, the most influential association in football has been chosen based on global football structure, financial policies, and social effects. This was found to be the UEFA, which has rigorous rules and regulations in place, including Financial Fair Play (FFP) introduced in 2009 that encourages sustainable monetary practices. Thirdly, within that association, the top seven countries with the strongest UEFA Coefficient were examined—namely Spain, England, Italy, German, France, Portugal, and Belgium. The final step includes only the Big Five Leagues due to their leading sporting, financial, and media contributions. Only men's first division teams were accounted for, with the argument that this group is the most profitable and sustainable in football management aspects.

² Framework and KPIs are taken from the Football Management Q-Score (Zülch, Palme, & Jost, 2019), KPIs listed in Figure 1 include only important examples and the full list of 66 KPIs in the FoMa Q-Score (2019) can be found in Appendix 1.

Due to the nature of this literature review, the timeframe of chosen research was wide ranging. However, after selecting relevant research, the time period showed to be



Note. Framework and key performance indicators taken from Football Management Q-Score (Zülch, Palme & Jost, 2019)

Figure 1: Framework Criteria (Own Illustration)

limited to after the year 2000 since the highest wave of modern football management and operations as business entities have taken place approximately in the last quarter-century. Therefore, the timeframe was restricted unless there was a major, industry-

changing or disrupting theory considered relevant and applicable for football management or a related topic.

III.2 Research Questions and Terms

Looking to find research gaps and a deeper understanding of football management, the researchers aimed to find CSFs that highly correlate with or highly impact success in professional football management. As mentioned in Section 1.2, research focused on all research not mentioned or exhaustively stated in the FoMa Q-Score. Researchers set out to answer the following questions:

1. What are the critical success factors impacting Sporting Success in the FoMa Q-Score?
2. What are the critical success factors impacting Financial Performance in the FoMa Q-Score?
3. What are the critical success factors impacting Fan Welfare Maximization in the FoMa Q-Score?
4. What are the critical success factors impacting Leadership and Governance in the FoMa Q-Score?
5. Do the critical success factors found in each dimension validate further examination of inclusion, exclusion, or restructuring of the FoMa Q-Score?

Starting with the limitation of the Big Five Leagues mentioned in the last section, researchers used the HHL Leipzig Library Database³, Research Gate and Google Scholar. Search terms included but were not limited to those listed in Figure 2.

Dimension	Search Term Used:
Sporting Success	Sporting Success AND (Divers* OR Heterogen* OR mutlinational teams) Sporting Success AND (team* performance) Sporting Success AND (compe* balance*) Sporting Success AND (Youth Academy OR Young* Player Develop*) Sporting Success AND (Football OR Soccer)
Financial Performance	Finance AND (Professional Football OR Professional Soccer) Finance AND Sports AND (Football OR Soccer) (Football OR Soccer) AND (Globalization OR Internationalization) (Football OR Soccer) AND Sport Econom* (Football OR Soccer) AND Sport Econom* (Football OR Soccer) and (CSR OR Corporate Social Reporting) (Football OR Soccer) AND (Report* OR Accounting) Financ* Performance* AND (Football OR Soccer) Financ* AND (Football OR Soccer) AND (strateg* plan* OR strateg*) (Football OR Soccer) AND (FFP OR Financial Fair Play regulations OR UEFA Club Licensing) (Football OR Soccer) AND (Performance Measurement OR Balance Scorecard OR KPI*)
Fan Welfare Maximization	(Football OR Soccer OR Sports) AND Digital Consumption Fan Welfare Maximization AND Branding Fan Welfare Maximization AND (CSR OR Corporate Social Responsibility OR Sustainability OR Social Values OR enviromental) AND (Football OR Soccer OR Sport teams) Fan Welfare Maximization AND (Communication OR social media) AND (Football OR Soccer OR pro* sports)
Leadership and Governance	(Football OR Soccer) AND owner* (Football OR Soccer) AND fin* governance (Football OR Soccer) AND foreign owner* (Football OR Soccer) AND (Stock* OR STOXX) Public AND (Football OR Soccer) AND (Owne*) European AND (Football OR Soccer) AND (Owne*) (Football OR Soccer) AND sugar (dad* OR comp*) Public AND (Football OR Soccer) AND (Owne*) (Leadership OR Governance) AND (Football OR Soccer)

Figure 2: Search Terms (Own Illustration)

³ The HHL Leipzig Library Database refers to the entire online library catalog found on the HHL eCampus website, consisting of a myriad of journals, databases, ebooks, books, and working papers. Main databases include ScienceDirect (Elsevier), ESBCO, and Statista. Main journals are listed in Section 3.3.

III.3 Descriptive Analysis and Distribution of Literature

From the limitations listed in Sections 2.1, 103 sources including 53 journals, 16 reports, 6 books, 4 working papers, 1 master thesis, and 23 webpages, were examined and considered significant to use as evidence for further research in the Determinants and Sustainable Success Factors Chart in Figure 5. 15 applied to the Sporting dimension, 34 applied to the Financial dimension, 33 applied to the FWM dimension and 21 applied to the L&G dimension. Some of the major journals included European Sport Management Quarterly, Soccer and Society, International Journal of Financial Studies, International Journal of Sports Science and Coaching, Sport Management Review and International Journal of Business in Society. Journals of all quality were included due to the early age of modern football management practices. Additionally, webpages were cited solely as proof that theoretical information was used in practice or as background information. As in Figure 1, the following dialogue adheres to reporting structure of Hahn and Kühnen (2013) and describes the distribution of sources in further detail based on type and dimension.

Figure 3 shows the distribution of literature by type since 2000. One can conclude that the number of relevant sources for football management has increased year to year due to the growing professionalism of football. For example, as TV and media revenues from matches, media efforts and club channels have become a primary source of income for clubs, analysis of the effects on club performance have been increasing over the last few years. Another key example is a change in policy measures that promote a spike in research. The FFP established in 2009, for example, is strict and enforced to promote club transparency, to strengthen financial health and to promote financial sustainability.

The positive results from Big Five Leagues since the FFP took precedent has naturally generated more curiosity and promotes further research.

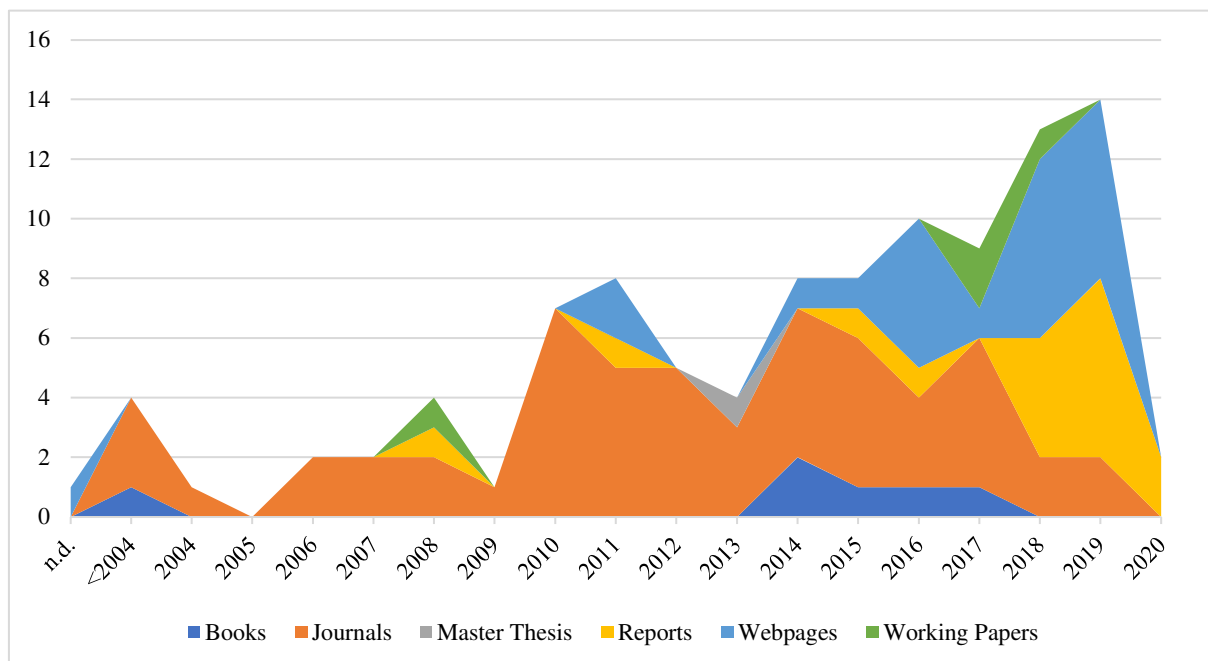


Figure 3: Distribution of Literature by Type (Own Illustration)

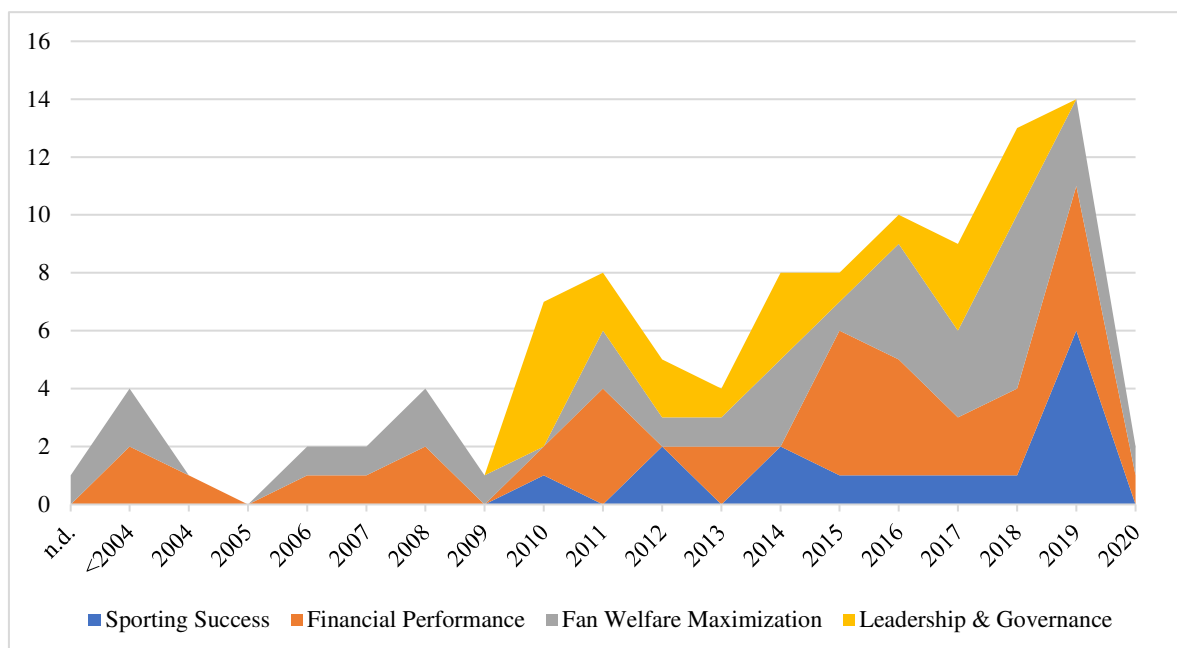


Figure 4: Distribution of Literature by Dimension (Own Illustration)

Figure 4 shows the distribution of literature based on the four FoMa Q-Score dimensions. Even though this literature review is not exhaustive, as the scope aims to prove specific research gaps in related to particular KPIs not mentioned in the FoMa Q-Score already, one can gather that much research related to football management slightly spiked after 2009. As in Figure 3, this could also be attributed to the establishment of FFP or the modernization of football management in general across all leagues. From all aspects of football—club, board members, matches, conventions, media revenue, fan demand and internationalization—the sport itself seemed to thrive within the last decade.

IV. Findings on Determinants

The scope of research was structured around the four dimensions in the FoMa Q-Score framework: Sporting Success, Financial Performance, Fan Welfare Maximization and Leadership and Governance. The FoMa Q-Score framework is the most relevant, all-encompassing football management measurement tool known to the researchers to date. Yet, despite the depth of research mentioned, strong application from Kaplan's (2010) BSC and specific KPIs from expert surveys, there is relevant research excluded due to recent changes in regulation, more applicable variables or other relevant KPIs. The following four sections will discuss expanding on the current topics outlined in the FoMa Q-Score that could lead to further analysis of individual names, weights and KPIs in the framework.

IV.1 Sporting Success

Out of all the aspects affecting success and at the core of every football club, one goal reigns—to achieve the highest sporting success possible through game wins, table ranking and, if applicable, international competition. The goals are influenced by several fixed factors—league structure, governing associations' rules, transfer processes and player pools—and variable factors—players, training, coaches, staff, management, environment, and facilities. The challenge is then how to synergize and integrate all aspects into managing the team and support staff to earn the most sustained

sporting success. Player development, team performance and player and coach characteristics make up the three categories in the FoMa Q-Score Sporting Success dimension, but further relevant topics such as team diversity, head coach quality and youth performance can be reevaluated.

Of the main aforementioned themes, a squad of players and coaches that work well together and have the most potential is also key. Without a strong team culture and strategy, teams have a hard chance of recovering from such disadvantages. As demonstrated by Liverpool FC in the English Premier League, a positive and incredible number of nationalities that brings varying talent, perspectives, backgrounds and culture proves to positively affect success more than a team whose majority members come from the country in which it plays (Premier League, 2020). Piecing together a team, even after a radical transfer season is rare, but when it works, coaches and board members are equally praised. Such was the case with Head Coach of Liverpool FC Jurgen Klopp, who manages 17 different nationalities on his team, which won him German Football Manager of the Year, Premier League Manager of the Month, Onze d'Or Coach of the Year, The Best FIFA Men's Coach and Man of the Year 2019 all in 2019 (Kicker, 2019). The well-known Fit and Proper Test used in the English Premier League is one way to set basic requirements for a coach, yet rigorous other requirements related to the sport itself are, of course, priority. Storm and Nielsen (2012) argue that large financial rewards and sustainable economic success can be achieved by sporting success—for example, by hiring better players and managers with international competition wins. Although this result may be true in some cases, new managers are not a guarantee for sporting and further financial success, as Rohde and Breuer (2017) point out that the efficiency of managers based on guidelines often lack statistical explanations for the observed effects. Therefore, relevant individual factors relating to team diversity and head coach quality could be included in analysis.

Another factor that is not directly considered due to its low statistical significance but still extremely important for future generations and transitioning to the professional ranks is youth development (Mills et al., 2012; Røynesdal et al., 2018, Mills et al., 2014). In the 2018/2019 season, a total of 144,147 million euro, 3.7% of all expenditures in the BL and BL 2 were invested in sustainable youth and amateur

systems that aim to consistently develop talent for the first team and yield some financial profits (The 2020 Economic Report, 2020, p. 23; Malone, 2014; Relvas et al., 2010). Structuring a youth academy and complimentary programs is difficult and requires proficiency in many areas from football intelligence and team skills to personal character growth and professionalism (Mills et al., 2012), but still imperative to the success of the program itself, the youth players and the professional club. Specifically in Germany, a certification process called Double Pass rated girls and boys football academies, which in total host 5,600 athletes. Even though Double Pass was abolished in 2019 and replaced in the future with a DFL-backed program (personal communication), it still provided a solid guideline for youth football development. Clubs could receive a rating of up to “Three-Star plus” by scoring high in the following categories: Strategy and Finance, Organization and Method, Football Education and Evaluation, Support and Education, Personnel, Communication and Cooperation, Infrastructure and Equipment and Effectiveness and Permeability (Kroemer, 2015). Building and developing a strong academy is essential for young talent and the limited demand, as strong youth programs will only provide an aggregate of around 3.5% of youth players for U23 teams or other professional teams (Dobrick, 2018). Two great academy examples are SC Freiburg and FC Kaiserslautern, which both share extremely successful histories in transferring field player and goalkeeper to higher division teams. Both have values of innovation, development, top-level coaching, and a long line of international stars coming from their academies, such as Kevin Trapp, Daniel Caligiuri and Oemer Toprak (Transfermarkt, 2019). Despite fluctuating success and incredible investments, youth development is still inconsistent across the Bundesliga and remains a challenging (Hesse, 2016), as only 70 players nationwide make it onto BL squads annually. The statistics mentioned are not surprising, as there is a limited supply of squad spots on professional teams. Nevertheless, youth development is still one of the most important building blocks of European football, as the academies need to develop talent to follow in the footsteps of world-renowned players like Gareth Bale from Southampton, Toni Kroos from Hansa Rostock or Antoine Griezmann from Real Sociedad (Transfermarkt, 2019). The FoMa Q-Score outlines good KPIs that measure home-grown talent, such as player appearances, development, and national team

members. However, based on the above-mentioned research in this dimension, adjusted KPIs could prove more applicable, such as a higher priority in measurement, relevant factors relating to youth academy or players sold to other professional clubs.

IV.2 Financial Performance

At the end of the 2018/2019 season, total revenue for the BL was a record-setting 4.8 billion Euro (DFL, 2020), but financial pressure is still at an all-time high as clubs are becoming more globally structured business entities (Hammer, 2016; Lawler, 1990). With 77.7% of BL and BL 2 clubs having positive results after taxes, there is still room for improvement in producing, managing, and sustaining revenues (DFL, 2020, p. 24 & 32). Looking at the recent developments concerning COVID-19, a lot of clubs could get in financial trouble due to low equity rates. Some clubs dependent on broadcast income as their main revenue model and have a higher debt to equity ratio and include, leaving those susceptible to financial trouble since the pause of Bundesliga matchdays. In order to achieve long-term financial sustainability, the main argument and hurdle for all clubs is how to fund and manage the professional team and supporting departments most efficiently while growing and achieving goals of owners, shareholders and stakeholders (Kozma & Kazai Ónodi, 2015). To measure this, Zülch, Palme, and Jost (2017) focused on three main KPI categories: growth and profitability, internationalization, and branding.

Beginning with growth and profitability, public versus privately traded clubs have unique needs. Publicly traded clubs in the stock market, such as BVB Dortmund, transparency and accurate reporting are key for shareholders, along with financial indicators like return on investment (ROI) and debt-to-equity (D/E) ratio. For privately owned clubs not participating in the stock market, like SC Freiburg, straight forward KPIs, such as total profit, operational expenses and sponsorship revenues are useful (Baur & McKeating, 2011). These KPIs are important, but since the DFL e.V. amendment to reporting in 2018, taking affect in 2019, all clubs are required to make certain balance sheet information public (Zusätzliche Transparenz, 2019). In general, when determining overall financial health of a football club two main factors on the balance sheet are interpreted and combined to gauge success: revenues and expenses.

A revenue maximization strategy for each form of revenue is important as there are important synergies and cooperation between departments. Across the Big Five Leagues, clubs receive revenue in the form of broadcasting, match and tickets, sponsorship, merchandising, UEFA participation and other forms (The 2020 DFL Economic Report, 2020; The European Footballing Landscape, 2018). In 2018, media revenue consisted of 40% of overall growth in the BL (The European Football Landscape, 2018), a substantial portion of which consisted of domestic and international TV rights, giving greater emphasis to clubs' international efforts. Only a select number of teams can rely on revenue from UEFA participation. Matchday sales, which include ticket sales from direct interaction with fans, who produce 12.9%, or 520.1 million Euro, of total game day purchases like tickets and merchandise (DFL Report 2020, p. 10). Depending on which business model clubs follow, the weight and importance of the aforementioned categories may differ. For example, FC Bayern incurs and retains large player transfer fees, but also puts value on domestic and international merchandise revenue. Sponsorship revenues and specifically comparing sponsorships in the 2016/2017 season, the Premier League lead with 1.473 million Euro followed by the Bundesliga with 954 million and La Liga with 872 million (Deloitte, 2019). Various club partnerships around the world are long-lasting, deepen the core competencies of the club and provide more than monetary value—such as Michael Jordan Brand at Paris St. Germain (McMahon, 2018) or SAP at TSG Hoffenheim (SAP, 2013). The Michael Jordan brand brings a global lifestyle trademark with reach extending beyond football fans, while SAP offers technological resources as well as high emphasis on player education and youth development. Other non-value adding agreements, however, can form volatile combinations and harm brand image, such as Bayer at Bayer Leverkusen 04 and its acquisition of Monsanto, a more than controversial agrochemical producer, in 2018 (Porzio, 2016). Merchandise and other forms, like player transfers fees, finalize the revenue stream. Player transfer fees are perhaps the most strategic and unpredictable out of all revenue streams due to its heavy dependency on the investing company, and matchday revenues.

Secondly, internationalization provides income in every Big Five League through a consistent but weighted revenue stream via international TV rights from

media outlets to each league association. Although clubs do not need to promote this brand directly for this, many clubs partake in strong international approaches. Standard communication covers the DACH region—Germany, Austria, Switzerland, and Lichtenstein—however, several clubs have extensive international approaches and massive fan measures outside of DACH that can be examined. For the first few years of a club’s internationalization strategies, clubs often experience reaching the break-even point or pure investment- based activities. Through first team appearances, more engagement with local market players, sponsor events and social engagement in foreign countries, which have all increased significantly in the last decade, cultural, language and social differences force clubs to adapt various fan acquisition strategies for each target market (Woratschek et al., 2008; Kuzma, Bell & Logue, 2014; Mariot, 2017). Digital reach is even more important to create an emotional connection to fans overseas that otherwise would not have been possible and to enhance customer lifetime value since fans are based not in the home market. Until 2019, only BVB Dortmund and FC Bayern Munich have been able to capture and capitalize on millions of international fans on different continents, proving social media and digital activations are worth the investment (Pollmann, 2016). Even though more European teams are crossing their borders to attract fans and expand partnerships, international fan acquisition throughout the league is not as sustainable or consistent as it could be. The need to bridge cultural and language gaps, correctly translate content, wholly understand new fan bases and efficiently implement strategies in international markets is not sufficed by all Big Five Leagues. Further internationalization efforts are discussed in the FWM dimension but, specifically to the FoMa Q-Score, should examine international social media and website languages offered, team presence, offices, and partners.

The last category in the dimension is branding—one of the most important domestic and international efforts that needs to be explicitly followed throughout the entire club and every department for maximum brand awareness. The KPIs—including brand attitude, awareness, development, and strength—are considered to be qualitative in nature and also very applicable to a broader theme of brand communication to fans. Not all branding efforts lead to directly to revenues, which makes it hard to track. Although good branding leads to monetization by customer awareness, conversion and

loyalty, branding efforts are usually intricately linked to communication and could apply to the FWM dimension. Therefore, further analysis concerning category placement is needed.

In addition to extending research in each category, there are other areas that demand attention. The first possible area of analysis not indicated in the previous three dimensions could be external league factors affecting competitive balance and game outcome uncertainty (GOU). Competitive balance in football refers to fair competition between teams, which in some leagues breeds a competitive imbalance as teams with engaged investors have higher funding and can buy expensive players to potentially increase the chance of improving game results. There is a strong justified case that denotes greater resources lead to greater results, further proving seasonal financial pressure for BL clubs to produce the best team to compete against other teams with far less or far better resources (Owen, 2015). According to Rottenberg (1956), all else being equal, the demand for a sporting product increases as GOU increases. This outcome could be shown by the current English Premier League practice of limiting the amount of games shown on TV to create higher TV revenue (Forrest et al., 2004). Ultimately, Forrest et al. (2004) conclude with econometric evidence that aversion to market actually has a negative effect on attendance.

A second area of possible research is fulfillment of regulations established by the league or UEFA. One of the most strategic and helpful regulations set was the Financial Fair Player (FFP) policies introduced in 2009. Although strict and limiting, FFP is an essential strategy to sustain club finances and to help clubs migrate to a positive financial environment by promoting fairness, transparency and credibility, and, therefore, assisting in club licensing qualification to potentially participate in UEFA competitions (Rikardsson & Rikardsson, 2013; Financial Fair Play, 2019; D'Andrea & Masciandaro, 2016). As stated in the UEFA Benchmarking Report (2018, p. 126), “Net debt continues to fall, from 65% of revenue before the introduction of FFP in 2011 to 40% in 2015, and down to 34% in 2017”, proving the FFP has long-term positive effects on financial sustainability. It should be noted that net debt for the top 20 leagues reported a rise to 40% in 2018, however, this slight raise can be attributed to fixed asset stadium investments in England, for example.

IV.3 Fan Welfare Maximization

Mellor (2008) explains that “professional football is not simply a form of mass commercial entertainment: it is a deeply embedded community activity, which expresses and reinforces the cultural identities of large numbers of people.” Football, as a transporter of values and ideas, has the power to strengthen communities and the foundation of human values like respect, tolerance, fairness, and equality (Hildebrandt, 2014, p. 3) and is a transparent tool to shed light on sensitive global social issues. When football first erupted in Europe, clubs represented the local citizens in their respective regions and created an extremely unique characteristic of fan loyalty, customs, values and representation. Still, there is a demand for the consistent reinforcement of internal corporate and external community bonds (Walters & Chadwick, 2009; Maignan, Ferrel & Hulk, 1999). It should be noted European club supporters are treated as fans, opposite to the conventional “customer” terminology used primarily in profit-driven leagues, such as Major League Soccer in the United States. This core difference automatically sets the psychological tone for additional strategies used and experiences offered to fans, proving this specific “consumer-producer [relationship] is unique in business terms” and must be consistently groomed (Hamil & Walters, 2010). Looking at the current state of research about football club financial reporting practices, it could be stated that football clubs are seen as normal companies (Moorhouse, 2007), but this approach might be difficult. On one side, the performance of a football club is strongly linked with the financial success, but on the other hand, football will always be a social event (Morrow, 2013). Keeping this unique club-fan social relationship strong season after season also depends on sporting success, however, appealing to and engaging with fans are essential for long-term acquisition and conversion. For example, with close to 19 million spectators visited 612 games in the 2018/2019 season (The 2020 Economic Report, 2020) as well as increasing roles in financial value, German clubs have a plethora of opportunities and reasons to create emotional ties and boost engagement through fan interaction. Outside of the 90-minute match, fans are looking for a place to share their “...passion, hope, esteem and camaraderie”, which makes various internal club platforms or external digital channels ideal for the objective of enhancing genuine

fan interaction (Stavros, et al., 2013). There is an important shift to digital platforms, as social media's key role in football fan experience grows stronger. As summarized by Zambom-Ferraresi, Lopez and Iráizoz (2017), FWM not only includes fan experience at stadiums, but also incorporates content for those following the club's entire lineup of offerings: training, press conferences, interviews, club media platforms and social media. With 3.8 billion users across all social channels, each platform holds a specific purpose that has the potential to maximize the end user's engagement, increase customer lifetime value and ultimately produce revenue for a club (Hootsuite, 2020, p. 8). This follows the consumption capital theory by Stigler & Becker (1977) and mentioned by Woratschek (2008), in which consumers will produce more utility, or revenue, the more knowledge they have about a particular product or service. Fans born in the 2000s, for example, are becoming main targets of football clubs, as they grew up during the emergence of the digital age, are beginning to have a larger share of wallet to devote to football expenditures and started arguably one of the biggest disruptors in the industry—esports. Consequently, broader themes of fan communication across all digital platforms are included in this literature review, which suits "...the ultimate purpose of FCs [which] is to serve their fans" (Zülch, 2017). The FoMa Q-Score lists membership and attendance, communication and social responsibility as key categories in the FWM dimension and can also include club efforts pertaining not only to those attending or the time surrounding football games, but also to all stakeholders in the club's community. Thus, expanded research to additional communication measures following the PESO Model—divided into paid, earned, shared and owned channels (Macnamara et al., 2016)—and including CSR and environmental sustainability efforts is emphasized in the next paragraphs.

It is important to note that each form of communication discussed can be online and offline formats depending on the relevance, strategy, and end user. Offline or non-digital activities can also be used in any of the proceeding media categories, but highly differ from club to club depending on the level of deep-rooted fan culture, innovative aims, or financial goals. Conversely, to reach fans that are not physically present at the stadium or events, a key technique to create connection points and relationships without having live experiences is through digital efforts (Dima, 2015). For example, clubs that

are innovative might want to send push notifications through their club app once fans reach a certain range from the stadium on gameday to enhance a fan's stadium experience. Other clubs that are more financially driven might offer a discount to the merchandise shop on a matchday with a food purchase. The more a club reaches out to its fans, the higher engagement, larger economic value and, ultimately, better sport performance can be attained.

As mentioned previously, the PESO Model is used to optimize communication platforms and to create inventory for potential sponsors and partners, both of which represent the media spectrum used by modern football clubs as avenues of capital. Paid media can be a complex communication measure that requires authenticity and includes sponsored or funded content and could involve collaborations with sponsors, partners or other companies for “one-offs” or special projects. The average fan is focused on football content—players, games, stadiums, and related topics—and anything that deters them from main content is viewed as a distraction; therefore, paid measures must be carefully planned and positioned. Earned media, represented by public relations, news articles and blog coverage, has risen dramatically to 8.152 billion Euro in TV revenues for the 2017/18 season (Deloitte, 2018). When compared to Germany, Premier League broadcast revenues were higher due to having more matchdays and offering higher ticket prices. The latter being the opposite situation in German mainly from the publicly owned member legal structures (Franck, 2010). Shared media is a relatively new strategy that strengthened in the past ten years and includes domestic and international fan engagement through social networking sites (SNS), such as Instagram, Twitter, TikTok and YouTube. Some clubs have millions of fans, such as Real Madrid with 223 million followers (Martin, 2019), and other organizations look to duplicate their results. With an annual growth rate of 9.2% in 2019 of social media users, many clubs can initially expect a large surge in followers with noteworthy content and increased revenues in the long-term with active participation (Hootsuite, 2020, p. 9). Owned media refers to any digital or analog platform owned by the club itself, ranging from websites and club TV to stadium magazines and newsletters. Although social media and other shared media has a somewhat automatic user base and can help generate engagement, owned media provides the ability to increase club awareness and

brand image through its own branding and technology. For example, having a dedicated club website and club TV platform allows the user to have a full experience from start to finish within the club's platforms, without unplanned advertisements or unwanted external content that could deter viewers away from a club's content. The synergy with and exposure to other users is sometimes nonexistent between external platforms, however, clubs can cross promote between owned media with other SNS, for example, and create similar interactions. The platforms themselves provide extensive reach in several markets that is not otherwise feasible based on a single club's efforts alone and in the future could be up to 20% of a club's media revenues as clubs shift to being their own media houses (Sponsors, 2020). To sum up, the PESO model adds the appropriate channels relevant to connecting with fans and eventually monetizing them. For a sustainable approach to fan communication and welfare, research is needed to prove exactly which platforms are relevant for long-term efforts.

The FWM sector also involves enhancing, innovating and providing public value, which can be done through corporate social responsibility (CSR). Social activities vary from club to club, but projects should have deeply rooted underlying causes for the community and should try to solve genuine, significant issues and not just be superficially motivated (Reiche, 2013; Porter and Kramer, 2006). Porter and Kramer (2006) define four motivations of CSR: "moral obligation, sustainability, license to operate and reputation" and without an authentic cause or incentive, clubs can chase after "avoiding bad" (Zülch and Palme, 2017) or "mitigating harm" instead of focusing on "[reinforcing] corporate strategy through social progress" (Porter & Kramer, 2006). Hence, the importance of social initiatives should be directly integrated into the core business activities of football clubs, as proven by the 85 projects supported by the Bundesliga Foundation (2019 DFL Economic Report, 2019), VfB Stuttgart's VfB Fairplay Movement ((VfB, n.d.) or VfL Wolfsburg's Wolfsburg United program (VfL, 2018). In doing so, expertise within the club is utilized to increase brand loyalty through meaningful engagement and important social measures (Inoue & Kent, 2012). Optimally, the underlying results of genuine social programs not only benefit external stakeholders, but also can motivate employees, promote innovation and enhance a club's reputation, as described by Blake (2007). Related to CSR is relevant reporting

standards. Companies of a larger size those which interact in socially delicate areas are under a closer observation of corporate stakeholders, who look for socially responsible behavior and appropriate conduct as marketing ambassadors (Breitbarth and Harris, 2008). Hence, the companies seek for a way to legitimize their actions, for example by CSR reporting (Branco & Rodrigues, 2007) or general CSR communication (Kolyperas and Sparks (2011). Football clubs carefully communicate to tackle sensitive problems like betting, match fixing, and more, which could lead to criticism. Certain clubs have developed a way to communicate transparently while using a broad mix of platforms and found out that although different channels like social media are used to form stronger relationships with stakeholders (Ribeiro, Branco & Ribeiro, 2019). There is no best practice, but German, Italian and French football clubs implement CSR to their communication strategy. This could be due to CSR reporting being closely linked to brand value increases, new market access, financial capital opportunities or stakeholder relationship building, as examined by (Breitbarth, et al., 2011, p. 722). Research shows that for Germany, England and Switzerland, a linkage exists between the financial power of the football clubs and involvement in CSR reporting by securing sponsorship. They also state that the level of communication depends on the legal form. For example, “eingetragener Verein” (registered association) must act socially responsible according to their legal form. Accordingly, social activities involving CSR along with CSR reporting practices should reflect core competencies and values of a club and can therefore be included in measuring management success.

Lastly, one important yet perhaps falsely rooted topic of CSR concerns environmental sustainability. Perhaps one of the best definitions of sustainable environmental procurement relating to football is written by Rydin et al. (2011, p. 8), which defined the term as “...the purchase of goods and services...done in such a way that minimizes the environmental impact and promotes equity and social justice right through the supply chain.” As the climate and important resources are deteriorating, environmental sustainability should not be considered an optional social issue that boosts brand image but should instead be considered a CSF in every club. As millions of metric tons of carbon emissions are exited into the atmosphere, thousands of watts of electricity are used and high operating costs are expensed annually, the question is

how to increase resource efficiency in club operations and greatly reduce all of the immense costs on the environment. There are several ways to improve a club's ecological policies and practices: improve waste management, reduce vendor food packaging, use alternative energy sources and lighting, use recycled water, provide more ecological public transportation, upgrade facilities and educate staff (Fitschen, 2006). Many sport associations and teams implemented carbon neutral or green policies based on much scientific research, like the Forest Green Rovers FC and its facility revamp with an organic field independent of conventional watering, electrical vehicles and vegan menus (Forest Green Rovers, 2018). However, more authentic, and decisive social actions and policies are needed to not only meet obligations and long-term management practices, but also to be a responsible actor in the industry and have genuine, positive impacts on local communities and stakeholders affected (IMUG, 2016).

IV.4 Leadership and Governance

Regardless of the dynamics of a football club, internal structures need to be efficient, productive, transparent, and seamless in nature. Similar to political appointees and structures, football clubs need to select decision makers extremely carefully, as they mold a club's image, value and operations on a daily basis. In addition to internal leadership, a part of heading in a strategic direction demands following the rules and regulations of the leagues, UEFA, FIFA, as well as other governmental or societal guidelines. Based on the FoMa Q-Score, the foundation of this literature review, three categories summarize L&G performance measurements: board quality, governance, and transparency. However, when looking at the literature, two additional major measurement topics are club ownership models, which describe the unpredictable relationship between legal structures and success, and internal structures between DMUs and operations. Another point, which might be more relevant than ever before, is that even though an investor might not hold the majority of the voting rights he or she still in fact owns the club. In times of COVID-19, clubs with investors have a commitment and without short-term success, the situation could turn from a benefit for all to a hold-up by the investor.

Franck (2010) theoretically showed that football clubs can generate competitive advantages with their spending power within the league. Although spending power equates to revenue, it does not necessarily correlate with profitability. The spending power relies more on the allocation of financial funds, such as how clubs direct financial resources into football and enable the investments of private investors.

Thus, there are various forms of club ownership in the Big Five Leagues which have benefits and disadvantages and economic, social, cultural and strategic motivations according to KPMG (2020). Especially in Germany, football clubs are a cultural property with high social impact (Kennedy, 2013). This is one reason why the DFL was the last league within the Big Five to allow an unbundling of legal structures, or a separation into association and club. Accordingly, following Rohde and Breuer (2017), an unbundling of the legal structure to a commercial entity or private entity is a pre-requisite for professional management as well as for investor entry and could lead to additional capital; however, it is also clearly stated that an incorporation is not a guarantee for success, such as the famously cited examples of bankruptcy and serious financial trouble within VfL Osnabrück or Alemannia Aachen. Dietl and Weingaertner (2011) used the platform and property rights theory to show how the choice of legal structure influences the revenue composition of sports institutions and to prove that a member structure will indeed generate higher sponsorship revenues due to the structure itself offering a protection against potential limitations from sponsors. This protection against hold-ups for sponsors and also for the customers lead to a higher attention by the potential sponsors. Therefore, when spending power equals revenue from sponsor income, an advantage can be made. But a further evaluation is needed as to which legal form can generate the highest revenue streams.

A specific example of private ownership is a “sugar daddy” (SD), classified as a person who invests an enormous amount of money into a club to become its owner (Lang, Grossmann and Theiler, 2011). Rhode and Breuer (2016) reviewed this application and found that among the top 30 revenue-generating football clubs, the SD model is increasing—perhaps because this model has a positive influence on the riskiness of investments (Franck and Lang, 2014). Single ownership could eventually lead to problems, however, Dimitropoulos (2014) acknowledges that if an investor

holds more than 75% of a club, principal-agency theory problems will increase and, similarly, Storm and Nielsen (2012) claim wealthy owners as SDs may have their own agenda. Both instances prove the investment might be a vehicle for increased prestige and power at the cost of the club. Furthermore, Lang, Grossmann and Theiler (2011) describe two other kinds of league models—one in which two clubs act as profit-maximizers, and one in which one club is owned by a SD and the other is a profit-maximizer. They point out that when a SD invests into a large-market club, the club will either become dominant within the league and eventually become unbalanced or the investment will increase the social welfare or sum of aggregate fan surplus, player salaries and club profits. If the win preference of the SD is too strong, the social welfare will decrease. Conversely, when a SD invests into a small market club, the social welfare will usually decrease. In relation, the competitive balance will raise or decrease depending on the win-preference of the SD. These two league models reveal that there are several variables and outcomes when considering the private ownership structure, leading to the conclusion that a club's legal structure cannot guarantee, forecast, or predict sporting or financial outcomes.

A less researched field is transparency, but it can probably buy an advantage when it comes to investments into the club. Aklerlof's Theory of the "Market for lemons" and Leuz & Wysocki's (2016), transparency can be attractive for clubs when it comes to investors. This is due to the fact that a rational investor makes his investment decision based on information. The company provides the amount of information that has the greatest positive cost-benefit ratio. If there is no obligation to provide information, the company is free to decide what will be published. "Insider" information can create information asymmetries that lead to investors who are "more" or "less" informed. A risk for the "less" informed buyer is, that the purchase price he paid is too high. As a countermeasure, he lets the risk flow into his investment decision and takes this into account accordingly. As a result, the bid-ask spread increases and, analogously, the decrease in securities trading (Leuz & Wysocki, 2016; Akerlof 1970). Following Leuz, Wysocki and Akerlof's considerations, the increased publicity of the companies also leads to an increase in the interest of the potential investors, which leads to a

competitive advantage over the less publicized competitors. Due to the regulations, the transparency of publicly listed companies is higher than for privately owned companies.

In Spain, the legal leading form is public-owned companies, which roots back to the enforcement of Spanish Law 10/1990 (Hassan & Hamil, 2012), while in Germany, the governance structure of a member association with an own legal entity (Verein) is still very dominant. Hamil and Walters (2010) described several Initial Public Offering (IPO) waves until its peak among the Big Five in 2000. However, after the going public hype, most of the football clubs were unprofitable and delisted their clubs, a retraction explained by Aglietta, Andreff and Drut (2010) as uncertainties about fair value and to a weak risk-return profile caused by balance sheets being too closely linked. Although many clubs delisted, a stock listing only had a short-term positive effect on revenues, but not on long-term gains, which could also be a reason for the described delisting by Hamil and Walters (2010). Rohde and Breuer (2017) still see a positive impact of a public listing on a short-term perspective for the national league but not on international performance and argue that going public could be beneficial for clubs from smaller leagues with national competition or German clubs, which are limited by the 50+1 rule and cannot open its doors to private ownership. Furthermore, Franck (2010) states that public ownership leads to a change in the governance structure, arguing public owners would not trade external admiration against a return on investment because of their win-or profit-maximizing goals. Leach & Szymanski (2015) examined the English premier league and found that clubs spent revenues received into win-maximization rather than profit-maximizing.

The last structure of foreign ownership, particularly in the English Premier League, is researched by Nauright and Ramfjord (2010) and concerns a globalized business model with foreign investors seeking ways to maximize profit. Franck and Lang (2014) consider that fans might turn away if a foreign investor buys success, but Honigstein (2018) and DW (2018) point out that some fans see it as a chance because their favorite club has the chance to become more competitive. Wilson, Plumley & Ramchandani (2013) state in their empirical research that clubs owned by foreign private investors perform better than clubs owned by domestic private owners, while

Rohde and Breuer (2016) concluded that a foreign owner has a positive impact on wages but a negative effect on profit.

As explained in the last paragraphs, there are advantages and disadvantages to private as well as public club structures, however, the influence of the management-ownership connection is still quite unknown (Rhode and Breuer, 2018). As football and the clubs changed from a sport leisure activity to a global billion-dollar business, the correct leadership appointments and governance balance leading to business efficiency, sporting wins and financial profits should be further analyzed (McMillan, 2010; The Football Association, 2019). Consequently, finding empirical research and case studies to support specific ownership models attributing to that balance and long-term success is necessary. Fresh and relevant insight could lead to new KPIs in the FoMa Q-Score. Additionally, internal club structures are not represented in the framework, which leads to operations and processes being another research point.

V. Practical Implications and Further Research

Based on Hahn and Kühnen (2013), Figure 5 divides sources from the four dimensions outlined in Zülch (2017) and assigns a variable that represents the main theme of the text. Along with the methodology, the positive, negative or neutral significance of the individual variables on each determinant was analyzed and a conclusion is recorded. This format also follows the literature review structure outlined in Cooper (1984) by “...[extracting] and [evaluating] the information in the articles that met the inclusion criteria”, which led to the main focus of this Literature Review—to synthesize knowledge from existing literature not revealed in the FoMa Q-Score and to find key linkages, research gaps, and unsolved applications which enable further avenues of analysis.

Regarding the first dimension of Sporting Success, individual KPIs could be revisited and expanded. Sporting success is the most unpredictable and its related variables are wide-ranging; yet, there are additional measurements that could directly relate to team performance, player and coach characteristics, and player development. Team

performance KPIs could include number of transfers in per season to show team cohesiveness and number of titles won in the last five seasons to show success. A relative topic is also sports technology and innovation, both of which have proven to help teams in terms of game analysis, performance tracking and player information databases. Although specific KPIs to integrate these two topics into the framework are unknown, they are both key

Determinants	Variable	Author	Year	Infl.	Conclusion
Sporting Success	Diverse teams	Haas, H. & Nüesch, S.	2012	+	Positive influence acknowledged
		Ingersoll, K., et al.	2017	+	
	Transition from youth to pros	Mills, A., et al.	2012	+	Positive influence acknowledged
		Røynesdal, Ø., et al.	2018	+	
	Youth development investments	DFL Deutsche Fussball Liga	2019	+	Positive influence acknowledged
		Dobrick, C.	2019	+	
		Kroemer, U.	2015	+	
		Mills, A., et al.	2014	+	
		Relvas, H., et al.	2010	+	
Fan Welfare Maximization	Authentic social causes	Blake, J.	2007	+	Positive influence acknowledged
		Porter, M. E. & Kramer, M. R.	2006	+	
		Reiche, D.	2014	+	
	Core competencies	Inoue, Y. & Kent, A.	2012	+	Positive influence acknowledged
	CSR-Reporting	Ribeiro, J., et al.	2019	+	Positive influence acknowledged
	Digital efforts	Fenton, A.	2018	+	Positive influence acknowledged
		Hootsuite	2020	+	
		Kuzma, J., et al.	2014	+	
		Pollmann, L.	2016	+	
		Stavros, C., et al.	2013	+	
		Zambom-Ferraresi, et al.	2017	+	
	Environmentally friendly policies	Fitschen, U.	2018	+	Positive influence acknowledged
	Fan communication	Scelles, N., et al.	2017	+	Positive influence acknowledged
		Stigler, G. & Becker, G.	1977	+	
	Football as community	Maignan, I., et al.	1999	+	Positive influence acknowledged
		Mellor, G.	2008	+	
		Woratschek, H., et al.	2008	+	
		Zuelch, H. & Palme, M.	2017	+	
	Football crossing borders	Hildebrandt, A.	2014	+	Positive influence acknowledged
	PESO Model	Macnamara, J., et al.	2016	+	Positive influence acknowledged
	Promoting community bonds	Walters, G. & Chadwick, S.	2009	+	Positive influence acknowledged
	Sustainable standards	imug Beratungsgesellschaft	2016	-	Indifferent results; research still scarce
		Rydin, Y., et al.	2011	+	
Financial Performance	Broadcasting revenue	Brandes, L., et al.	2008	+	Indifferent results; research still scarce
		Forrest, D., et al.	2004	-	
	CSR-Reporting	Breitenbarth, T., et al.	2011	+	Positive influence acknowledged
		Kolyperas, D. & Sparks, L.	2011	+	
		Morrow, S.	2013	+	
		Porter, M. E. & Kramer, M. R.	2006	+	
	Financial Fair Play regulation	D'Andrea, A. & Masciandaro, D.	2016	+	Positive influence acknowledged
		Schuhmacher, F.	2019	+	
		UEFA	2018	+	
	IPOs	Baur, D. & McKeating, C.	2011	-	Negative influence acknowledged
	Performance measurement	Kozma, M. & Kazai Ónodi, A.	2015	+	Positive influence acknowledged
		Kozma, M. & Kazai Ónodi, A.	2015	+	
	Resource Perk	Owen, D. & King, N.	2015	-	Negative influence acknowledged
	Salary	Lawler, E.	1990	o	Negative to no significant influence found but research still scarce
		Milenovsky, M.	2015	-	
	Sustainable financing	Hamil, S. & Walters, G.	2010	o	Positive influence widely acknowledged
		Hammer, E.	2016	+	
		Moorhouse, H. F.	2007	+	
		Rikardsson, H. & Rikardsson, L.	2013	+	

Figure 3: Determinants on Success Factors (Part 1 of 2) (Own Illustration)

Determinants	Variable	Author	Year	Infl.	Conclusion
Leadership & Governance	Compliance	Aglietta, M., et al.	2010	-	Negative influence acknowledged
	Globalization	Ford, M.	2018	+	Positive influence acknowledged
		Honigstein, R.	2018	+	
		Nauright, J. & Ramfjord, J.	2010	+	
	Internal Strucutre	Rohde, M. & Breuer, C.	2017	+	Positive influence acknowledged
	Management ownership	Rohde, M. & Breuer, C.	2018	o	No significant influence found but research still scarce
	Ownership	Acero, I., et al.	2017	+	Positive influence widely acknowledged
		Dimitropoulos, P.	2014	-	
		Franck, E.	2010	+	
		Rohde, M. & Breuer, C.	2016	+	
	Private Ownership	Franck, E. & Lang, M.	2014	o	Indifferent results; research still scarce
		Lang, M., et al.	2011	-	
		Wilson, R., et al.	2013	+	
	Public Ownership	Hamil, S. & Walters, G.	2010	+	Indifferent results; research still scarce
		Késenne, S.	2014	-	
		Leach, S. & Szymanski, S.	2015	o	

Note. "Infl." stated in the fifth column of Figure 5 refers to the positive, negative or neutral Influence each variable has on the Determinant.

Figure 4: *Determinants on Success Factors (Part 2 of 2) (Own Illustration)*

factors in sporting success for professional teams. Secondly, important KPIs relating to player and coach characteristics are a coach's average league position in the last three years to show success, a coach's number of titles in the last three seasons to show results, and a player's number of national team players in the squad to show team quality. Lastly, player development includes youth academy players and structure, which could use U15-U23 youth and amateur team performance statistics to incorporate the most important performance age group in youth development, market value of homegrown players currently in the squad to show the internal conversion rate from a youth to professional team, and average age of youth players in professional teams to show the remaining years potential development.

From the second dimension on Financial Performance, reporting, internationalization, and branding sectors should be reanalyzed. Firstly, Transfermarkt, a website providing football information on worldwide leagues, was used for financial KPIs in Zülch, Palme, and Jost (2019) and the recent DFL e.V. amendment changing club licensing requirements in December 2018 (Zusätzliche Transparenz, 2019), can help to update the data to include direct numbers from clubs and not those from secondary or tertiary sources. Secondly, internationalization is a topic that applies to many different departments within a club and therefore has various messages and values to transport. For this reason, the topic itself is considered a major investment in the short-term, with benefits only coming in the mid- to long-terms. Additionally, this topic can include more KPIs relating to social media, languages offered, team presence,

offices, and partners. Since internationalization intersects more than two or three departments, the question of having a separate subdivision or a small fraction in each FoMa Q-Score dimension is raised. Therefore, findings suggest a reexamination of the subdivision placement and overall integration with other variables. Lastly, although branding is in the financial dimension, all KPIs are qualitative measurements—namely, “Brand Attitude” and “Brand Development.” Monetization through branding occurs when a club licenses their products, for example granting a production license to use a trademark for certain sellable products or when awareness brings conversion in the short-term and loyalty in the long-term. Therefore, for branding to have a financial value and be attached with a sale of goods in club licensing, other internal KPIs are needed in the financial dimension. Contrarily, branding can also be a measurement of brand value and intangible assets and, consequently, some branding efforts do not lead to direct monetization. In summary, further analysis is needed to explore the correct placement of subdivisions, as brand awareness could be categorized under FWM due to its qualitative characteristics.

Findings on the third dimension of FWM address broader fan and societal interaction in not only communication, but also CSR and environmental sustainability. The match is 90 minutes long and undoubtedly the core competency of every club. Nevertheless, it represents a short window to appeal to and convert fans and non-fans. Common themes in the Determinants Chart showed community values, authentic social cause and digital efforts highly impact FWM. The FoMa Q-Score only discusses Facebook as a communication platform, yet almost every club has multiple channels and are specifically using Facebook, YouTube and club channels to communicate their brand and activities. Several more primary methods of communication—such as websites, social media, club channels and media outlets—should be reevaluated for relevancy, applicability and usage, and the dimension itself could be expanded to include more platforms communication. Several clubs in the Big Five Leagues have robust international strategies involving first team tours, youth camps, social communication, offices, and sponsors in foreign markets. As digital platforms are the primary source of internationalization concerning international fans, communication platforms should be updated to include key channels relevant to each market. Other

specific KPIs in this dimension could relate to international fan bases, number of fan clubs domestically and internationally, and statistics related to other SNS. The last two topics in the FWM dimension consist of measures related to CSR and environmental sustainability. Although the FoMa Q-Score mentions one KPI related to the imug sustainability ranking, analysis could prove separating CSR and social value measures from environmental sustainability, which should be considered as a CSF for each FC.

Lastly, the L&G dimension could report on internal club structure and operations. Rohde and Breuer (2017) and Franck (2010) theoretically proved that spending power and legal structure do not equate to sporting or financial success. Therefore, more links from profit and performance to specific structural attributes surrounding governance are needed from empirical research and case study examples. Furthermore, the other working processes between the directives assigned by the board and actual results need to be analyzed. These in between steps, including all internal operations and structures that carry out decisions made from top executives, immensely differ club to club and can be further explored.

VI. Conclusion

While still reliant on and overlapping with each other, every sector in a football club has its own exclusive definition of success, which when summed could indicate the health of a FC. As Kaplan and Norton (2004; 2010) rationalize, “You cannot manage what you cannot measure. You cannot measure what you cannot describe” and “if you can not measure it, you can not improve it.” The process to long-term goal attainment should be then to create individual policies integrated in management practices that form stronger, more sustainable operations that are not highly or exclusively dependent on any one activity or department or source of income. Monitoring these practices includes having a framework to measure the progress and using that guide wisely to grow and optimize. Consequently, quantifiably assessing the club can gauge weaknesses and highlight certain areas of improvement. As the most all-encompassing football management measurement, the FoMa Q-Score allows an overview of the club through KPIs in four dimensions: Financial Performance, Sporting Success, Fan

Welfare Maximization, and Leadership and Governance. The goal of this Literature Review was to identify new central issues that build on factors already mentioned in the FoMa Q-Score and to bring new insight that justifies further examination of the framework. After finding new insights described in Section 4, findings in each of the four

dimensions, or determinants, were compared in an extensive list and grouped according to common themes in Figure 5. Based on the causal linkages between findings, researchers proved there is a need for further analysis and examination as to whether all factors utilized in the FoMa Q-Score are sustainable and relevant for football companies. Thus, encapsulated in Figure 6 are specific examples in each of the four FoMa Q-Score dimensions validated by this Literature Review that call for further examination. Serving as a starting point for the next papers, Figure 6 shows specific structural, subdivision, and KPI changes. Areas of analysis could include dimension names and subdivision placement, for example, consisting of reexamining the relevance of Internationalization and Branding subdivisions in the Financial Performance Dimension. Dimension weight is also an area of discussion, as only five Bundesliga clubs offered insight to the FoMa Q-Score. Despite knowledge from companies directly impacting FCs—such as Puma and Lagardère Sports Germany and major industry influencers, such as Odgers Berndtson and FINANCE—the framework should have input from the actors directly described in order to provide the most transparent understanding of professional football management. Accordingly, surveys and semi-structured interviews of several BL clubs should make up the clear majority of input and should be the goal in future research. Finding key factors based on Figure 6 and further research in upcoming papers could lead to a reshaping of the FoMa Q-Score, which BL or BL 2 clubs can use as a guideline for sustainable operations, financial

Category	Sporting Success	Financial Performance	Fan Welfare Maximization	Leadership and Governance
Overall Structure	– Dimension weight	– Dimension weight	– Dimension weight	– Dimension weight
Subdivision	N/A	– Placement of Internationalization – Placement of Branding – External league regulations	– Integration of / or separation of fans and members – Environmental sustainability measures	– Internal operations – Transparency
KPIs	– Team cohesiveness (transfer rate per transfer window) – Double Pass Ranking – International players – Number of head coach titles – Average market value of homegrown players in current club – Number of NT players – Number of international NT players	– Main sponsor revenue – Basic profit equation – Total expenses – Website languages – International presence – International fan base – Social media languages	– Social media channels – Digital platforms for fans – Fan clubs in Germany and other countries – CSR projects and efforts – Environmental measures	– Number of years in a Board position – Legal form – Number of employees – Board directives
Other	– Definition of youth age groups – Sports technology or innovations to help performance – Higher priority ranking	– Use of direct financial information from clubs – Change of Database	– Definition of FWM – Definition of fans – Definition of members	N/A

Note. "N/A" refers to "Not Applicable".

Figure 5: Specific Areas of Further Research (Own Illustration)

parameters, member and fan interaction, or sports development. For instance, through sustainable management insights in these four areas, smaller or newly promoted BL and BL 2 clubs can begin to create sustainable value, emphasize long-term gains, and build effective processes, turning a once struggling club dependent on few sources of income into a thriving modern FC capable of withstanding financial or sporting setbacks. Sustainable management has, of course, monetary targets and sporting goals, however, a football club offers much more than numbers and table position. A club stands for the social values of its community, offers an everlasting sense of hope to its fans, and is a vital part of its region. Changing perspectives from football clubs to FCs is, therefore, not only practical, but also the right thing to do in order to keep a club's tradition, community, and values alive for years to come.

VII. Reference List

- Acero, I., Serran, R., & Dimitropoulos, P. (2017). Ownership Structure and Financial Performance in European football. Corporate Governance. *International Journal of Business in Society*, 17(3), 511-523. <https://doi.org/10.1108/CG-07-2016-0146>
- Afthinos, Y., Theodorakis, N. D., & Nassis, P. (2005). Customers' expectations of service in Greek fitness centers: Gender, age, type of sport center, and motivation difference. *Journal of Service Theory and Practice*, 15(3), 245-258. <https://doi.org/10.1108/09604520510597809>
- Aglietta, M., Andreff, W., & Drut, B. (2010). Floating European football clubs in the stock market (2010-24). Université de Paris Ouest Nanterre La Défense. http://economix.fr/pdf/dt/2010/WP_EcoX_2010-24.pdf
- Akerlof, G. A. (1970). Quality Uncertainty and the Market Mechanism. *The Quarterly Journal of Economics*, 84 (3), 488-500.
- Bar-on, T. (2014). The World through Soccer: The Cultural Impact of a Global Sport. Rowman & Littlefield Publishers.
- Baur, D. & McKeating, C. (2011). Do Football Clubs Benefit from Initial Public Offerings? *International Journal of Sport Finance*, 6(1), 40-59.
- Blake, J. (2007). Caring for the bottom line. *Human Resource Planning*, 30(1), 36-44.
- Bourg, J. & Gougnet, J. (2012). Économie du sport. La Découverte.
- Branco, M. C. & Rodrigues, L. L. (2007). Positioning stakeholder theory within the debate on corporate social responsibility [...]. *Electronic Journal of Business Ethics and Organization Studies*, 12(1), 5–15.
- Brandes, L., Franck, E., & Nüesch, S. (2008). Local heroes and superstars: An empirical analysis of star attraction in German soccer. *Journal of Sports Economics*, 9, 266-286. <https://doi.org/10.1177/1527002507302026>
- Breitbarth, T. & Harris, P. (2008). The Role of Corporate Social Responsibility in the Football Business: Towards the Development of a Conceptual Model. <https://doi.org/10.1080/16184740802024484>

- Breitbarth, T., Hovemann, G., & Walzel, S. (2011). Scoring strategy goals: Measuring corporate social responsibility in professional European football. *Thunderbird International Business Review*, 53(6), 721 - 737. <https://doi.org/10.1002/tie.20448>
- Bundesliga (2016). Bundesliga - Unanimous decision passed by the DFL Board on media income distribution for the seasons from 2017/18 to 2020/21. <https://www.bundesliga.com/en/news/Bundesliga/agmd12-dfl-media-income-distribution-424720.jsp>
- Bundesliga Foundation (2017). Second Survey of the Voluntary Civic Engagement of German Professional Football. Bundesliga Foundation.
- BVB Dortmund. (2019, August 13). BVB Annual Report 2018/2019. <https://report.bvb.de/annual-report/2018-2019/>
- Chasek, P.S., Wagner, L.M., Leone, F., Lebada, A.-M., & Risse, N. (2016). Getting to 2030: Negotiating the Post-2015 Sustainable Development Agenda. *RECIEL*, 25, 5-14. <https://doi:10.1111/reel.12149>
- Cooper, H. M. (1988). Organizing knowledge synthesis: A taxonomy of literature reviews. *Knowledge in Society*, 1, 104-126.
- Cooper, H. M. (1984). The integrative research review: A systematic approach. *Applied social research methods series*, 14(13), 7.
- D'Andrea, A. & Masciandaro, D. (2016). Financial Fair Play in European Football: Economics and Political Economy - A Review Essay (Publication No. 2016-15). Baffi Carefin Centre Research Paper. <https://doi.org/10.2139/ssrn.2712216>
- Deloitte. (2019, May). World in motion Annual Review of Football Finance 2019. <https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/sports-business-group/deloitte-uk-annual-review-of-football-finance-2019.pdf>
- Deloitte. (2018, June). Roar power: Annual Review of Football Finance 2018. <https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/sports-business-group/deloitte-uk-sbg-annual-review-of-football-finance-2018.PDF>
- Deloitte (2019, May 29). European football market worth €28.4 billion (£25.1bn) as Premier League clubs lead the way to record revenues. Deloitte. <https://www2.deloitte.com/uk/en/pages/press-releases/articles/european->

[football-market-worth-28-billion-euros-as-premier-league-clubs-lead-the-way-to-record-revenues.html](https://www.dfb.de/news/detail/eine-erfolgsgeschichte-50-jahre-bundesliga-die-saison-196465-35127/)

Deutscher Fußball-Bund (2012, November 07). Eine Erfolgsgeschichte—50 Jahre Bundesliga—Die Saison 1963/1963. DFL seit 1963. Deutscher Fußball-Bund. <https://www.dfb.de/news/detail/eine-erfolgsgeschichte-50-jahre-bundesliga-die-saison-196465-35127/>

Deutscher Fußball-Bund (2016). Sustainability Report.

DFL (2019, May 29). Zusätzliche Transparenz: DFL veröffentlicht Finanzkennzahlen der Proficlubs der Saison 2019/20. DFL Deutsche Fussball Liga GmbH. <https://www.dfl.de/de/aktuelles/dfl-veroeffentlicht-finanzkennzahlen-der-proficlubs-2019-20/>

DFL Deutsche Fussball Liga. (2019). The 2019 Economic Report. <https://www.dfl.de/en/news/2019-dfl-economic-report-record-revenue-and-other-new-highs-confirm-the-positive-economic-development-of-german-professional-football/>

DFL Deutsche Fussball Liga. (2018, November). The 2018 Report. https://media.dfl.de/sites/3/2018/11/2018_DFL_Report_M-1.pdf

DFL Deutsche Fussball Liga. (2020). The 2020 Economic Report. https://media.dfl.de/sites/3/2020/02/EN_DFL_Wirtschaftsreport_2020_M.pdf

DFL Deutsche Fussball Liga. (2017). DFL-Report 2017. Die Wirtschaftliche Situation im Lizenzfußball. <https://www.bundesliga.com/de/bundesliga/news/dfl-report-2017-bundesliga-deutsche-fussball-liga-agmd18.jsp>

DFL Deutsche Fussball Liga. (January 31, 2019). The 2019 DFL Economic Report. https://media.dfl.de/sites/3/2019/02/DFL_2019_Economic_Report_EN_M.pdf

Dherbecourt, J.B. & Durt, B. (2009). Who will go down this year? The Determinants of Promotion and Relegation in European Soccer Leagues. University of Paris West - Nanterre la Défense. EconomiX Working Papers.

Dietl, H. & Weingaertner, C. (2011). The Effect of Professional Football Clubs' Legal Structure on Sponsoring Revenue. <http://dx.doi.org/10.2139/ssrn.2493130>

- Dima, T. (2015). The Business Model of European Football Club Competitions. *Procedia Economics and Finance*, 23, 1245-1252. [https://doi.org/10.1016/S2212-5671\(15\)00562-6](https://doi.org/10.1016/S2212-5671(15)00562-6)
- Dimitropoulos, P. (2014). Capital structure and corporate governance of soccer clubs: European evidence. *Management Research Review*, 37(7), 658-678. <https://doi.org/10.1108/MRR-09-2012-0207>
- Dobrick, C. (2019, March 18). Talententwicklung: Große Talente, die keine großen Spieler wurden. Talentkritiker.de. <http://talentkritiker.de/talententwicklung-grosse-talente-die-keine-grossen-spieler-wurden/>
- Dubois, L. (2018). *The Language of the Game: How to Understand Soccer*. Basic Books.
- Durstewitz, I. (2019, July 25). Eintracht Frankfurt - Die Eintracht putzt sich raus. Frankfurter Rundschau. <https://www.fr.de/eintracht-frankfurt/eintracht-putzt-sich-raus-10999045.html>
- EFQM (n.d.). EFQM Model. EFQM. <https://www.efqm.org/index.php/efqm-model/>
- Fenton, A. (2018). *The field behind the screen: Social capital and the social media communications of a football club brand* [Unpublished Doctoral Thesis]. Salford Business School University of Salford, UK. https://usir.salford.ac.uk/id/eprint/46691/7/Alex-Fenton-PhD_FINAL3.pdf
- Fitschen, U. (2018). Umweltmanagement ausgewählter Großveranstaltungen—Effektiver Umweltschutz oder Greenwashing?. http://www2.leuphana.de/umanagement/csm/content/nama/downloads/download_publicationen/55-9downloadversion.pdf
- Foer, F. (2006). *How Football Explains the World: An Unlikely Theory of Globalization*. Arrow Books.
- Ford, M. (2018, March 22). Opinion: 50+1 is the root of all that is good about German football. Deutsche Welle. <https://www.dw.com/en/opinion-501-is-the-root-of-all-that-is-good-about-german-football/a-42472062>
- Forest Green Rovers F.C. (2018). Forest Green Rovers F.C. <https://www.forestgreenroversfc.com/about-forest-green-rovers/club-charter/our-environmental-policy>

- Forrest, D., Simmons, R., & Szymanski, S. (2004). Broadcasting, attendance and the inefficiency of cartels. *Review of Industrial Organization*, 24(3), 243-265.
- Franck, E. (2010). Private Firm, Public Corporation or Member's Association—Governance Structures in European Football. *International Journal of Sport Finance*, 5(2), 108-127.
- Franck, E. & Lang, M. (2014). A Theoretical Analysis of the Influence of Money Injections on Risk Taking in Football Clubs. *Scottish Journal of Political Economy*, 61(4), 430-454. <https://doi.org/10.1111/sjpe.12052>
- Galeano, E. (2013). *Soccer in Sun and Shadow*. Bold Type Books.
- Gall, M. D., Borg, W. R., & Gall, J. P. (1996). *Educational research: An introduction*. Longman Publishing.
- Giulianotti, R. (2012). *Football - The Wiley-Blackwell Encyclopedia of Globalization*. Wiley Blackwell.
- Glaser, B. & Strauss, A. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Routledge.
- Goldblatt, D. (2008). *The Ball is Round: A Global History of Soccer*. Penguin Books.
- Guzmán, I. & Morrow, S. (2007). Measuring efficiency and productivity in professional football teams: evidence from the English Premier League. *Central European Journal of Operations Research*, 15, 309-328. <https://doi.org/10.1007/s10100-007-0034-y>
- Haas, H. & Nüesch, S. (2012). Are multinational teams more successful? *The International Journal of Human Resource Management*, 15, 3105-3113. <https://doi.org/10.1080/09585192.2011.610948>
- Hahn, R. & Kühnen, M. (2013). Determinants of sustainability reporting: a review of results, trends, theory, and opportunities in an expanding field of research. *Journal of Cleaner Production*, 59, 5-21. <https://doi.org/10.1016/j.jclepro.2013.07.005>
- Hamil, S. & Walters, G. (2010). Financial performance in English professional football: 'an inconvenient truth.' *Soccer & Society*, 11, 354-372. <https://doi.org/10.1080/14660971003780214>

- Hammer, E. (2016). Internationalisierung im Sport. Wie verändert sich der Profifußball in Deutschland und Europa durch die Globalisierung? GRIN Publishing.
- Hassan, D. & Hamil, S. (2012). Who Owns Football? Models of Football Governance and Management in International Sport. London: Taylor & Francis Ltd.
- Hesse, U. (2016, July 7). How Germany's awful Euro 2000 forced a mass restructure—and why it wouldn't work for England. FourFourTwo. <https://www.fourfourtwo.com/features/how-germanys-awful-euro-2000-forced-a-mass-restructure-and-why-it-wouldnt-work-england>
- Hildebrandt, A. (2014). CSR und Sportmanagement - Jenseits von Sieg und Niederlage: Sport als gesellschaftliche Aufgabe verstehen und umsetzen. Gabler Verlag.
- Honigstein, R. (2018, March 09). What would happen if Bundesliga clubs scrapped '50+1' ownership rule? ESPN. <https://www.espn.com/soccer/german-bundesliga/10/blog/post/3412475/what-would-happen-if-bundesliga-clubs-scrapped-50+1-ownership-rule>.
- Hootsuite. (2020). Digital 2020. Global Digital Overview. <https://datareportal.com/reports/digital-2020-global-digital-overview>
- Hubbard, G. (2009). Measuring Organizational Performance: Beyond the Triple Bottom Line. *Business Strategy and the Environment*, 18(3), 177-191. <https://doi.org/10.1002/bse.564>
- imug Beratungsgesellschaft. (2016). Nachhaltigkeit im Profifußball. Offensivspektakel oder Abwehrschlacht? Ein Blick auf die 1. Bundesliga. https://www.imug.de/fileadmin/user_upload/Downloads/imug_csr/imug_csr_studie_nachhaltigkeit_profifussball_2016.pdf
- Ingersoll, K., Malesky, E., & Saiegh, S. (2017). Heterogeneity and team performance: evaluating the effect of cultural diversity in the world's top soccer league. *Journal of Sport Analytics*, 3(2), 67-92. <https://doi.org/10.3233/JSA-170052>
- Inoue, Y. & Kent, A. (2012). Sport teams as promoters of pro-environmental behavior: an empirical study. *Journal of Sport Management*, 26(5), 417-432. <https://doi.org/10.1123/jsm.26.5.417>
- Kaneda, T. & Dupuis, G. (2016). World Population Data Sheet with Focus on Youth.

- Kaplan, R. S. (2010). Conceptual Foundations of the Balanced Scorecard. Harvard Business School Accounting & Management Unit Working Paper, 10-074. <https://doi.org/10.2139/ssrn.1562586>
- Kaplan, R. S. & Norton, D. P. (2004). Strategy Maps: Converting Intangible Assets into Tangible Outcomes. Harvard Business Review Press.
- Karlovitz, J. T., (2015). Applying the Public Sector ScoreCard in Professional Sports. In Some Current Issues in Economics (pp. 303-316). International Research Institute.
- Kennedy, D. (2013). A contextual analysis of Europe's ultra football supporters movement. *Soccer & Society*. 14(2), 132-153. <https://doi.org/10.1080/14660970.2013.776464>
- Késenne, S. (2014). The Economic Theory of Professional Team Sports. Edward Elgar Publishing.
- Kicker (2019, December 29). Jürgen Klopp - unser "Mann des Jahres 2019." Kicker. https://www.kicker.de/766118/artikel/juergen_klopp_unser_mann_des_jahres_2019
- Klein, T. (2020, April 03). Die Corona-Krise als Chance für die Bundesliga? <https://www.dw.com/de/die-corona-krise-als-chance-f%C3%BCr-die-bundesliga/a-52995903>.
- Kolyperas, D. & Sparks, L. (2011). Corporate social responsibility (CSR) communications in the G-25 football clubs. *International Journal of Sport Management and Marketing*, 10(1/2), 83-102. <https://doi.org/10.1504/IJSM.2011.043612>
- Karlovitz, J. T. (2015). Applying the Public Sector ScoreCard in Professional Sports. In Some Current Issues in Economics (pp. 303-316). International Research Institute.
- Kozma, M. & Kazai Ónodi, A. (2015). Applying the Public Sector ScoreCard in Professional Sports. Komárno: International Research Institute sro. <http://www.irisro.org/economics2015january/76Kozma-Kazai.pdf>
- KPMG (2020, January 28). Key motivations behind buying a professional football club. KPMG Football Benchmark.

https://footballbenchmark.com/library/key_motivations_behind_buying_a_professional_football_clubs

- Kroemer, U. (2015). So funktioniert die Zertifizierung von Leistungszentren. https://www.dfb.de/fileadmin/_dfbdam/78258-ussballtraining_double_pass.pdf
- Kuper, S. (2010). Soccer Against the Enemy: How the World's Most Popular Sport Starts and Fuels Revolutions and Keeps Dictators in Power. Bold Type Books.
- Kuper, S. & Szymanski, S. (2014). Soccernomics: Why England Loses, Why Spain, Germany, and Brazil Win, and Why the U.S., Japan, Australia-and Even Iraq-Are Destined to Become the Kings of the World's Most Popular Sport. Bold Type Books.
- Kuzma, J., Bell, V. & Logue, C. (2014). A study of the use of social media marketing in the football industry. *Journal of Emerging Trends in Computing and Information Sciences*, 5(10), 728-738. <https://doi.org/10.15308/Sinteza-2019-244-249>
- Lang, M., Grossmann, M., & Theiler, P. (2011). The Sugar Daddy Game: How Wealthy Investors Change Competition in Professional Team Sports (167(4). University of Zurich. http://repec.business.uzh.ch/RePEc/iso/ISU_WPS/128_ISU_full.pdf
- Lawler, E. (1990). Strategic pay: aligning organizational strategies and pay systems. Jossey-Bass Publishers.
- Leach, S. & Szymanski, S. (2015). Making Money Out of Football. *Scottish Journal of Political Economy*, 62(1), 25-50. <https://doi.org/10.1111/sjpe.12065>
- Leuz, C. & Wysocki, P. D. (2016). The Economics of Disclosure and Financial Reporting Regulation: Evidence and Suggestions for Future Research. *Journal of Accounting Research*, 54(2), 525-622. <https://doi.org/10.1111/1475-679X.12115>
- Macnamara, J., Lwin, M., Adi, A., & Zerfass, A. (2016). 'PESO' media strategy shifts to 'SOEP': Opportunities and ethical dilemmas. <https://doi.org/10.1016/j.pubrev.2016.03.001>
- Maignan, I., Ferrel, O. C., & Halk, G. T. (1999). Corporate citizenship: Cultural antecedents and business benefits. *Journal of the Academy of Marketing Science*, 27(4), 455-469. <https://doi.org/10.1177/0092070399274005>

- Malone, E. (2014, Oct 11). Inside German Football: Hoffenheim put the building blocks in place. Irish Times. <https://www.irishtimes.com/sport/soccer/international/inside-german-football-hoffenheim-put-the-building-blocks-in-place-1.1959561>
- Manchester United. (2019, September 24). United States Securities and Exchange Commission Form 20-F - Manchester United plc. <https://ir.manutd.com/~media/Files/M/Manutd-IR/documents/2019-mu-plc-form-20-f.pdf>
- Mariot, D. (2017). The Internationalisation of Football Clubs [Unpublished Bachelor Thesis]. Pforzheim University. <https://www.grin.com/document/497950>
- Martin, D. (2019, December 29). Real Madrid lead the world in social media followers. Diario AS. https://en.as.com/en/2019/12/29/football/1577606426_305803.html
- McMahon, B. (2018, September 13). Neymar, Mbappe, Paris Saint-Germain And Jordan Brand Align Beautifully In Ground Breaking Agreement. Forbes. <https://www.forbes.com/sites/bobbymcmahon/2018/09/13/neymar-mbappe-paris-saint-germain-and-jordan-brand-align-beautifully-in-ground-breaking-agreement/#4e36ddb64b20>
- McMillan, C. (2010). Five competitive forces of effective leadership and innovation. Journal of Business Strategy, (31(1), 11-22. <https://doi.org/10.1108/02756661011012741>
- MDR. (2020, March 31). Bei Corona-Abbruch: "Das überstehen nicht alle 36 Klubs!" https://www.mdr.de/sport/fussball_1bl/corona-abbruch-ueberstehen-nicht-alle-sechsenddreissig-klubs-100.html
- Mellor, G. (2008). 'The Janus-faced sport': English football, community and the legacy of the 'third way.' *Soccer & Society*, 9(3), 313-324. <https://doi.org/10.1080/14660970802008942>
- Milenovsky, M. (2015). Does Money Guarantee Success in Football? https://dspace.cuni.cz/bitstream/handle/20.500.11956/69719/BPTX_2013_2_11_230_0_387746_0_150698.pdf?sequence=1
- Mills, A., Butt, J., Maynard, I., & Harwood, C. (2014). Examining the Development Environments of Elite English Football Academies: The Players' Perspective.

- International Journal of Sports Science & Coaching*, 9(6), 1457-1472.
<https://doi.org/10.1260/1747-9541.9.6.1457>
- Mills, A., Butt, J., Maynard, J., & Harwood, C. (2012). Identifying factors perceived to influence the development of elite youth football academy players. *Journal of Sports Sciences*, 30(15), 1593-1604.
<https://doi.org/10.1080/02640414.2012.710753>
- Moorhouse, H. F. (2007). Financial Expertise, Authority and Power in the European Football 'Industry.' *Journal of Contemporary European Research*, 3(3), 290-299.
- Morrow, S. (2013). Football club financial reporting: time for a new model? *Sport, Business and Management: An International Journal*, 3(4), 297-311.
- Moullin, M. (2009). Using the Public Sector Scorecard to measure and improve healthcare services. *Nursing Management*, 16(5), 26-31.
- Nauright, J. & Ramfjord, J. (2010). Who owns England's game? American professional sporting influences and foreign ownership in the Premier League. *Soccer & Society*, 11(4), 428-441. <https://doi.org/10.1080/14660971003780321>
- Owen, D. & King, N. (2015). Competitive Balance Measures in Sports Leagues: The Effects of Variation in Season Length. *Economic Inquiry*, 53(1), 731-744.
<https://doi.org/10.1111/ecin.12102>
- Pollmann, L. (2016, October 09). Why are Borussia Dortmund so popular among international football fans? Bleacher Report. Bleacher Report.
<http://bleacherreport.com/articles/2668465-why-are-borussia-dortmund-so-popular-among-international-football-fans>
- Porter, M. E. & Kramer, M. R. (2006). Strategy and Society: The Link Between Competitive Advantage and Corporate Social Responsibility. *Harvard Business Review*, 84(12), 3-4.
- Porzio, M. (2016, May 24). The Bayer-Monsanto Deal May Make A Lot of Sense For Shareholders. *Forbes*. <https://www.forbes.com/sites/mattporzio/2016/05/24/the-bayer-monsanto-deal-may-make-a-lot-of-sense-for-shareholders/#407a13776d35>
- Premier League (n.d.). Official Liverpool FC squad. Premier League.
<https://www.premierleague.com/clubs/10/Liverpool/squad>

- Randolph, J. A Guide to Writing the Dissertation Literature Review. *Practical Assessment, Research, and Evaluation*, 14(13). doi: <https://doi.org/10.7275/b0az-8t74>
- Reiche, D. (2014). Drivers behind corporate social responsibility in the professional football sector: a case study of the German BL. *Soccer & Society*, 15(4), 472-502. <https://doi.org/10.1080/14660970.2013.842877>
- Relvas, H., Littlewood, M., Nesti, M., Gilbourne, M., & Richardson, D. (2010). Organizational Structures and Working Practices in Elite European Professional Football Clubs: Understanding the Relationship between Youth and Professional Domains. *European Sport Management Quarterly*, 10(2), 165-187. <https://doi.org/10.1080/16184740903559891>
- Ribeiro, J., Branco, M. C., & Ribeiro, J. A. (2019). The corporatisation of football and CSR reporting by professional football clubs in Europe. *International Journal of Sports Marketing and Sponsorship*, 20(2), 242-257. <https://doi/10.1108/IJSMS-05-2017-0039/full/html>
- Rikardsson, H. & Rikardsson, L. (2013). Strategic management in football—how the European top club could adjust to UEFA financial fair play and simultaneously create conditions for competitive advantage within the changing UEFA football industry
- Rohde, M. & Breuer, C. (2016). Europe's Elite Football: Financial Growth, Sporting Success, Transfer Investment, and Private Majority Investors. *International Journal of Financial Studies*, 4(2), 1-20. <https://doi.org/10.3390/ijfs4020012>
- Rohde, M. & Breuer, C. (2017). The market for football club investors: a review of theory and empirical evidence from professional. *European football. European Sport Management Quarterly*, 17(3), 265-289. <https://doi.org/10.1080/16184742.2017.1279203>
- Rohde, M. & Breuer, C. (2018). Competing by investments or efficiency? Exploring financial and sporting efficiency of club ownership structures in European football. *Sport Management Review*, 21(5), 563-581. <https://doi.org/10.1016/j.smr.2018.01.001>

- Rottenberg, S. (1956). The Baseball Players' Labor Market. *Journal of Political Economy*, 64(3), 242-258.
- Røynesdal, Ø., Toering, T., & Gustafsson, H. (2018). Understanding players' transition from youth to senior professional football environments: A coach perspective. *International Journal of Sports Science & Coaching*, 13(1), 26-37. <https://doi.org/10.1177/1747954117746497>
- Rydin, Y.; Seymor, R., & Lorimer, S. (2011). Sustainability in the Sports Sector. <http://basis.org.uk/wp-content/uploads/2015/08/Sports-Sector-Report.pdf>
- SAP (2013, June 10). SAP Named New Main Sponsor of German Football Club TSG 1899 Hoffenheim`. SAP. <https://news.sap.com/2013/06/sap-named-new-main-sponsor-of-german-football-club-tsg-1899-hoffenheim/>
- Scelles, N., Helleu, B., Durand, C., Bonnal, L., & Morrow, S. (2017). Explaining the Number of Social Media Fans for North American and European Professional Sports Clubs with Determinants of Their Financial Value. *International Journal of Financial Studies*. <https://doi.org/10.3390/ijfs5040025>
- Schuhmacher, F. (2019). Klublizenzierung und Financial Fair Play nach dem UEFA-Reglement. *Schriften zum Sportrecht*, 46, 1-16. <https://doi.org/10.5771/9783845295558-1>
- Sponsors (2020, January 28). Warum sich Proficlubs als Medienhäuser positionieren sollten. SPONSORS. <https://www.sponsors.de/news/magazin/warum-sich-proficlubs-als-medienhaeuser-positionieren-sollten>
- Stavros, C., Meng, M., Westberg, K., & Farrelly, F. (2013). Understanding fan motivation for interacting on social media. *Sport Management Review*, 17(4), 455-469. <https://doi.org/10.1016/j.smr.2013.11.004>
- Stigler, G. & Becker, G. (1977). De Gustibus Non Est Disputandum. *American Economic Review*, 67(2), 89.
- Storm, R. K. & Nielsen, K. (2012). Soft budget constraints in professional football. *European Sport Management Quarterly*, 12(2), 183-201. <https://doi.org/10.1080/16184742.2012.670660>
- Szymanski, S. & Kuper, S. (1999). *Winners and Losers: the Business Strategy of Football*. Viking.

- Szymanski, S. (2010). The English Football Industry: Profit, Performance and Industrial Structure. In Football Economics and Policy (pp. 1-26). Palgrave Macmillan.
- The Football Association. (2019). The FA Handbook 2019/20. <http://handbook.fapublications.com/#!/book/30>
- Transfermarkt (2019). Transfermarkt.de. <https://www.transfermarkt.de/>
- UEFA. (2019, June 05). Financial Fair Play. <https://www.uefa.com/insideuefa/protecting-the-game/financial-fair-play/>
- UEFA. (2018). The European Footballing Landscape: Club Licensing Report Financial Year 2018. https://www.uefa.com/MultimediaFiles/Download/OfficialDocument/uefaorg/Clublicensing/02/63/79/75/2637975_DOWNLOAD.pdf
- United Nations (2006, June 05). Annan points to parallels between the UN and World Cup soccer. United Nations. <https://news.un.org/en/story/2006/06/181412>
- VfB Stuttgart (n.d.). VfB Stuttgart - Kollektion "VfBfairplay". VfB Stuttgart. <https://www.vfb.de/de/1893/club/vfbfairplay/projekt/fussball/vfbfairplay-kollektion/>
- VfL Wolfsburg (2018). Wolfsburg United. VfL Wolfsburg. <https://www.vflwolfsburg.de/en/info/wolfsburg-united.html>
- Walters, G. & Chadwick, S. (2009). Corporate citizenship in football: delivering strategic benefits through stakeholder engagement. Management Decision, 47(1), 51-66. <https://doi.org/10.1108/00251740910929696>
- Weltfussball (2019). <https://www.weltfussball.de>
- Wilson, R., Plumley, D., & Ramchandani, G. M. (2013). The relationship between ownership structure and club performance in the English Premier League. Sport, Business and Management: An international Journal, 3(1), 19-36. <https://doi.org/10.1108/20426781311316889>
- Woratschek, H.; Kunz, R., & Brehm, P. (2008). International Marketing of the German Football Bundesliga: Exporting a National Sport League to China (ISSN 1611-3837). Universität Bayreuth Lehrstuhl für Dienstleistungsmanagement. <https://www.semanticscholar.org/paper/International-Marketing-of-the->

[German-Football-a-to-Woratschek-Kunz/1f1577424f1dda3fc281aa33dbc42cedad96cfc1?pg=2df](https://www.researchgate.net/publication/31577424f1dda3fc281aa33dbc42cedad96cfc1?pg=2df)

Zambom-Ferraresi, F., Lopez, F., & Iráizoz, B. (2017). And if the ball does not cross the line? A comprehensive analysis of football clubs' performance. *Applied Economic Letters*, 24(17), 1259-1262.
<https://doi.org/10.1080/13504851.2016.1270408>

Zülch, H. & Palme, M. (2017). Management Quality of German Football Clubs: The Football Management (FoMa) Q-Score 2017 [Working Paper]. HHL Leipzig Graduate School of Management, Chair of Accounting and Auditing.
<https://www.hhl-archiv.de/fileadmin/texte/publikationen/arbeitspapiere/hhlap0167.pdf>

Zülch, H., Palme, M., & Jost, S. (2019). Management Quality of Professional Football Clubs
The Football Management (FoMa) Q-Score 2019 [Working Paper]. HHL Leipzig Graduate School of Management, Chair of Accounting and Auditing.
<https://www.hhl-archiv.de/fileadmin/texte/publikationen/arbeitspapiere/hhlap0179.pdf>

Zülch, H., Palme, M. & Jost, S. (2020). Management quality of professional football clubs: the Football Management (FoMa) Q-Score 2018. *Sport, Business and Management*. 10 (5), 567-598.

VIII. Appendix

List of Appendices

Appendix 1: KPIs of the FoMa Q-Score - Sporting Success (1/2) (Zülch et al., 2020)	
.....	XIX
Appendix 2: KPIs of the FoMa Q-Score - Sporting Success (2/2) (Zülch et al., 2020)	
.....	XIX
Appendix 3: KPIs of the FoMa Q-Score - Financial Performance (1/2) (Zülch et al., 2020)	
.....	XX
Appendix 4: KPIs of the FoMa Q-Score - Financial Performance (2/2) (Zülch et al., 2020)	
.....	XX
Appendix 5: KPIs of the FoMa Q-Score - Fan Welfare Maximization(1/2)	XX
Appendix 6: KPIs of the FoMa Q-Score - Fan Welfare Maximization (2/2) (Zülch et al., 2020)	
.....	XXI
Appendix 7: KPIs of the FoMa Q-Score – Leageship & Governance (Zülch et al., 2020)	
.....	XXI

Measured KPIs – Sporting Success (SS) – 1/2							
Sub-dimension	ID	KPI	Definition	Reasoning for Inclusion	Priority	Order	Source
Team Performance (TP)	TP ₁	Bundesliga performance (micro-cycle)	Points accrued in the current season	Indicates the team performance in the current Bundesliga season	High	Descending	Transfermarkt (2019)
	TP ₂	Bundesliga performance efficiency (micro-cycle)	Points accrued per professional squad budget in the current season	Indicates the team performance in the current Bundesliga season taking into account the professional squad budget	Medium	Descending	Transfermarkt (2019) Broad internet search
	TP ₃	Bundesliga performance (meso-cycle)	Avg. number of points accrued in the last three seasons	Indicates the team performance in the last three Bundesliga seasons	Medium	Descending	Transfermarkt (2019)
	TP ₄	Bundesliga performance efficiency (micro-cycle)	Avg. number of points accrued per squad market value in the last three seasons	Indicates the team performance in the last three Bundesliga seasons taking into account the squad market value	Low	Descending	Transfermarkt (2019)
	TP ₅	DFB-Pokal performance (macro-cycle)	Avg. number of DFB-Pokal matches won in the last five seasons	Indicates the team performance in the last five DFB-Pokal seasons	Medium	Descending	Transfermarkt (2019)
	TP ₆	International performance (macro-cycle)	Average UEFA club coefficient in the last five seasons	Indicates the team performance in international competitions in the last five seasons	Medium	Descending	UEFA (2019)
	TP ₇	Title performance (macro-cycle)	Number of titles won in the last five seasons	Indicates the team performance in terms of national and international titles won in the last five seasons	Medium	Descending	Transfermarkt (2019)

Appendix 1: KPIs of the FoMa Q-Score - Sporting Success (1/2) (Zülch et al., 2020)

Measured KPIs – Sporting Success (SS) – 2/2							
Sub-dimension	ID	KPI	Definition	Reasoning for Inclusion	Priority	Order	Source
Player / Coach Characteristics (PCC)	PCC ₁	Player performance	Players' average rating according to a Ligainsider evaluation	Indicates the performance levels of individual players	Medium	Descending	WhoScored (2019)
	PCC ₂	Players' mean age	Mean age of the professional squad	Indicates the sporting development potential of the FC's players	Medium	Ascending	Transfermarkt (2019)
	PCC ₃	New players' performance contributions	Average deviation of team average rating and top-3 new players' ratings	Indicates the performance levels the main transfer acquisitions add to the FC	Low	Descending	WhoScored (2019)
	PCC ₄	Top players' contract lengths	Average remaining contract length of top-5 players	Indicates the longevity of the FC's most valuable players and thereby the future stability of its core team	Low	Descending	Transfermarkt (2019)
	PCC ₅	Head coach job security	Average days on the job per head coach in the last five seasons	Indicates the FC's continuity on the coaching position and thus long-term development capability	Medium	Descending	Transfermarkt (2019)
	PCC ₆	Head coach quality	Head coach' average points per game achieved in his career	Indicates the quality level of the FC's coach	Low	Descending	Transfermarkt (2019)
	PCC ₇	Coaching team contract length	Average remaining length of coaching team members' contracts	Indicates the longevity and future stability on the coaching team positions	Low	Descending	Transfermarkt (2019)
Player Development (PD)	PD ₁	Homegrown players	Fraction of homegrown players in the current squad	Indicates the youth academy's permeability	Medium	Descending	Transfermarkt (2019)
	PD ₂	Appearances of homegrown players for FC	Bundesliga matches played for FC per homegrown player in the current squad	Indicates the FC's ability to integrate youth players from the academy	Low	Descending	Transfermarkt (2019)
	PD ₃	Development of former homegrown players	Average market value of top-10 homegrown players currently playing for another club	Indicates the career potential homegrown players receive through the FC's youth academy	Low	Descending	Transfermarkt (2019)
	PD ₄	Internal development of non-homegrown players	Average yearly market value growth of top-5 non-homegrown players since acquisition	Indicates the FC-internal development quality for non-homegrown players	Medium	Descending	Transfermarkt (2019)
	PD ₅	Youth academy performance (micro-cycle)	Average league position of youth teams (U23, U19, U17) in the last five seasons	Indicates the performance of the FC's youth teams in the current season	Low	Ascending	DFB (2019)
	PD ₆	Youth academy performance (macro-cycle)	Number of titles won in youth leagues (U23, U19, U17) in the last five seasons	Indicates the performance of the FC's youth teams in the last five seasons	Low	Descending	DFB (2019)
	PD ₇	National youth team members	Fraction of international players in youth team squads (U23, U19, U17)	Indicates the individual quality of FC's youth team players and thus the potential provision of high-quality player material in the future	Low	Descending	Transfermarkt (2019)

Appendix 2: KPIs of the FoMa Q-Score - Sporting Success (2/2) (Zülch et al., 2020)

Measured KPIs – Financial Performance (FP) – 1/2							
Sub-dimension	ID	KPI	Definition	Reasoning for Inclusion	Priority	Order	Source
Growth / Profitability (GP)	GP ₁	Revenue	Total revenue in the previous season	Indicates the FC's success in generating income across the various income sources in the last season	High	Descending	Bundesanzeiger (2019); Sport.de (2019),
	GP ₂	Costs for professional staff	Fraction of revenue spent on professional squad budget	Indicates the portion of total revenue the FC spends on players and coaches' salaries	Medium	Ascending	Geld (2019); Statista (2019) Bundesanzeiger (2018); Sport.de (2019)
	GP ₃	Wage efficiency	Squad market value in relation to professional squad budget	Indicates how much quality the FC attains in relation to the salaries it pays for coaches and players	Medium	Descending	Geld (2018); Statista (2019); Transfermarkt (2019)
	GP ₄	Jersey sponsor	Revenue generated through jersey sponsoring in the current season	Indicates the FC's success in attracting sponsors	Medium	Descending	Statista (2019)
	GP ₅	Buying price mark-up	Average of transfer fees paid in relation to transfer acquisitions' market valuations	Indicates the capability to close financially attractive transfer deals when acquiring new players	Low	Ascending	Transfermarkt (2019)
	GP ₆	Selling price mark-up	Average of transfer fees gained in relation to existing players' market valuations	Indicates the capability to close financially attractive transfer deals when selling existing players	Low	Descending	Transfermarkt (2019)
	GP ₇	VIP Stadium boxes	VIP boxes per stadium capacity	Indicates the ability to generate significant matchday revenues through premium hospitality	Low	Descending	Transfermarkt (2019)
Branding (B)	B ₁	Brand attitude	Brand attitude according to a survey conducted by TU Braunschweig	Indicates the attitudes football fans have towards the FC	Medium	Descending	Technische Universität Braunschweig (2018)
	B ₂	Brand awareness	Aided brand awareness according to a survey conducted by TU Braunschweig	Indicates the football fans' familiarity of the FC	Medium	Descending	Technische Universität Braunschweig (2018)
	B ₃	Brand development	Year-on-year growth of the brand index according to a survey conducted by TU Braunschweig	Indicates the year-on-year development of the FC's brand dimensions attitude and awareness	Low	Descending	Technische Universität Braunschweig (2017, 2018)
	B ₄	Brand strength	Value of brand strength according to a survey conducted by HORIZONT	Indicates the strength of the FC's brand and thereby the attractiveness for sponsors, fans, and media	Low	Descending	HORIZONT (2018)

Appendix 3: KPIs of the FoMa Q-Score - Financial Performance (1/2) (Zülch et al., 2020)

Measured KPIs – Financial Performance (FP) – 2/2							
Sub-dimension	ID	KPI	Definition	Reasoning for Inclusion	Priority	Order	Source
Internationalization (I)	I ₁	International sponsors	Fraction of international sponsors in the sponsoring pool (1 st to 3 rd sponsoring level)	Indicates the FC's ability to attract international sponsors	Medium	Descending	FCs' webpages (2019); FC sponsors' webpages (2019)
	I ₂	Physical presence	Physical presence in different parts of the world	Indicates the FC's efforts to attract fans abroad and maintain international relationships	Medium	Descending	Broad internet research (e.g. bundesliga.de and sport1.de)
	I ₃	International webpage visits	Fraction of international webpage visits in the last month	Indicates the FC's success in reaching out to international fans via the official webpage	Low	Descending	SimilarWeb (2019)
	I ₄	Webpage languages	Number of languages on the official webpage	Indicates the FC's efforts to communicate with fans from different parts of the world	Low	Descending	FCs' webpages (2019)
	I ₅	International players	Fraction of international players in the professional squad	Indicates the internationality within the FC's professional squad	Low	Descending	Transfermarkt (2019)

Appendix 4: KPIs of the FoMa Q-Score - Financial Performance (2/2) (Zülch et al., 2020)

Measured KPIs – Fan Welfare Maximization (FWM) – 1/2							
Sub-dimension	ID	KPI	Definition	Reasoning for Inclusion	Priority	Order	Source
Membership / Attendance (MA)	MA ₁	Fan base	Number of fans in Germany	Indicates the FC's national popularity in terms of general preferences	High	Descending	Eurosport (2018); own estimations
	MA ₂	Member base	Number of members	Indicates the FC's national popularity in terms of its closest supporters	High	Descending	L'équipe (2018)
	MA ₃	Member conversion	Number of FC's members in relation to its overall fans	Indicates the fraction of the FC's overall fan base that feels extraordinarily strong about the FC	Medium	Descending	Eurosport (2018); L'équipe (2018); own estimations
	MA ₄	Member base growth	Year-on-year growth in members	Indicates the FC's success to increase its member base	High	Descending	L'équipe (2018)
	MA ₅	Stadium utilization	Average match attendance per stadium capacity	Indicates fans' levels of support and loyalty towards the FC	High	Descending	LFP (2018); Transfermarkt (2019); Soccerstats.com (2019)
	MA ₆	Minimum match attendance	Lowest match attendance in relation to stadium capacity	Indicates fans' willingness to support the FC also in less interesting matches or at less convenient kick-off times	Medium	Descending	LFP (2018); Soccerstats.com (2019)
	MA ₇	Stadium standing capacity	Fraction of standing places in the stadium	Indicates stadium atmosphere and FC's consideration of fan organizations' wishes (i.e. more standing places)	Low	Descending	Transfermarkt (2019)
	MA ₉	Membership fee	Costs to become a FC member	Indicates the FC's willingness to enable fans to become members	Low	Ascending	Broad internet search
	MA ₁₀	Season ticket price	Costs of average season ticket	Indicates the FC's willingness to enable fans to acquire season tickets	Low	Ascending	Sport 24 (2017)
	MA ₁₂	Jersey price	Costs of a jersey	Indicates the FC's willingness to enable fans to purchase the jersey	Low	Ascending	Broad internet search

Appendix 5: KPIs of the FoMa Q-Score - Fan Welfare Maximization (1/2) (Zülch et al., 2020)

Measured KPIs – Fan Welfare Maximization (FWM) – 2/2							
Sub-dimension	ID	KPI	Definition	Reasoning for Inclusion	Priority	Order	Source
Communication (C)	C ₁	Webpage visits	Webpage visitors in the last three months	Indicates the overall number of visits the FC can generate on its webpage	Medium	Descending	Similarweb (2019)
	C ₂	Webpage conversion	Webpage visits in relation to overall fans	Indicates the utilization of the FC's internet presence by its fan base	Low	Descending	Eurosport (2018); Similarweb (2019); own estimations
	C ₃	Webpage growth	Monthly growth in webpage visits over the last six months	Indicates the FC's internet presence development in terms of visitor numbers	Low	Descending	Similarweb (2019)
	C ₄	Webpage visit duration	Average visit duration in the last three months	Indicates the level of engagement the FC's webpage visitors have	Low	Descending	Similarweb (2019)
	C ₅	Facebook fan base	Number of fans on the official Facebook account	Indicates the overall number of followers the FC can attract on its Facebook account	Medium	Descending	Facebook (2019)
	C ₆	Facebook conversion	Facebook fans in relation to overall fans	Indicates the utilization of the FC's Facebook presence by its fan base	Low	Descending	Eurosport (2018); Facebook (2019); own estimations
	C ₇	Facebook fan base growth	Monthly growth in Facebook fans over the last six months	Indicates the FC's Facebook presence development in terms of fans	Low	Descending	Fanpage Karma (2019)
	C ₈	Facebook engagement	Average of daily likes, comments, and shares per Facebook fans	Indicates the level of engagement the FC's Facebook fans have	Low	Descending	Fanpage Karma (2019)
F ⁽¹⁾	SR ₂	Fines	Total fines in 2016/17 campaign	Indicates the peacefulness of the FC's fans and the efforts the FC undertakes to prevent misconduct	Low	Descending	Broad internet search

Appendix 6: KPIs of the FoMa Q-Score - Fan Welfare Maximization (2/2) (Zülch et al., 2020)

Measured KPIs – Leadership & Governance (LG)							
Sub-dimension	ID	KPI	Definition	Reasoning for Inclusion	Priority	Order	Source
Board Quality (BQ)	BQ ₁	Management performance	Management score according to a survey conducted by HORIZONT (+ bonus for management education)	Indicates the current and future performance of the FC's management	Medium	Descending	HORIZONT (2018); FCs' webpages
	BQ ₂	Independent board members	Fraction of independent members in the supervisory board	Indicates the rationality and thereby decision-making quality of the FC's supervisory board	Low	Descending	Broad internet research (i.a. FCs' webpages)
	BQ ₃	Number of board members	Total number of supervisory and executive board members	Indicates resource access and knowledge provision of the FC's boards	Low	Descending	Broad internet research (i.a. FCs' webpages)
Governance (G)	G ₁	Corporate governance quality	CG ranking according to a study conducted by Juschus, Leister, and Prigge	Indicates the FC's overall CG quality based on a variety of indicators	Medium	Descending	Juschus et al. (2017a, 2017b); own estimation
	G ₂	Legal form	Allocated rank according to the legal form	Indicates the FC's CG quality based on its legal form	Low	Descending	FCs webpages
	G ₃	Institutional shareholders	Fraction of shares held by non-controlling institutional shareholders (here: extended to companies in general)	Indicates the FC's monitoring capabilities due to institutional governance	Low	Descending	Broad internet research (e.g. official FC press statements)
Transparency (T)	T	Public disclosure	Access to annual report, organigram, executive and supervisory board members (incl. CVs), and statutes	Indicates how transparently the FC operates and thereby lets the public comprehend its general setup	Medium	Descending	Bundesanzeiger (2019); FCs' webpages (2019)

Appendix 7: KPIs of the FoMa Q-Score - Leadership & Governance (Zülch et al., 2020)



HHL LEIPZIG
GRADUATE SCHOOL
OF MANAGEMENT

HHL Leipzig Graduate School of Management

HHL is a university-level institution and ranks amongst the leading international business schools. The goal of the oldest business school in German-speaking Europe is to educate entrepreneurial, responsible and effective business leaders. HHL stands out for its excellent teaching, its clear research focus, its effective knowledge transfer into practice as well as its outstanding student services. Study programs include a Master in Management program, a Master with a specialization in Finance as well as an MBA program. All programs can be completed full-time or part-time. HHL also runs a Doctoral Program. The HHL Executive Education offers state-of-the-art management seminars for executive talents. Besides its main campus in Leipzig, the university maintains study locations in Cologne and Munich. HHL is accredited by AACSB International and ACQUIN. [hhl.de](https://www.hhl.de)