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Financing nonprofit sports clubs – Perspectives on core income sources and financial problems

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Contents

List of Abbreviations

BISp	Bundesinstitut für Sportwissenschaft [Federal Institute of Sport Science]
BMI	Bundesministerium des Inneren [Federal Ministry of the Interior]
BSB Nord	Badischer Sportbund Nord [Baden Sports Confederation North]
BSIBV	Bayerisches Staatsministerium des Innern, für Bau und Verkehr [Bavarian State Ministry of the Interior, for Construction and Transport]
CONC	Revenue concentration
CSP	Commercial sport provider
DOSB	Deutscher Olympischer Sportbund [German Olympic Sports Confederation]
DSSV	Arbeitgeberverband deutscher Fitness- und Gesundheits-Anlagen [Employers' Association of German Fitness and Health Facilities]
EBIT	Earnings before interest and taxes
ESMQ	European Sport Management Quarterly
e.V.	Eingetragener Verein [Registered association]
FPO	For-profit organisation
GLM	Generalised linear model
HHI	Hirschman-Herfindahl index
ICR	Interest coverage ratio
IJSF	International Journal of Sport Finance
LSB	Landessportbund [State sports confederation]
LSB NDS	Landessportbund Niedersachsen [State Sports Confederation of Lower-Saxony]
LSB NRW	Landessportbund Nordrhein-Westfalen [State Sports Confederation of North Rhine-Westphalia]
LSB Sachsen	Landessportbund Sachsen [State Sports Confederation of Saxony]

LSV SH	Landessportverband Schleswig-Holstein [State Sports Confederation of Schleswig-Holstein]
MBI NRW	Ministerialblatt Nordrhein-Westfalen [Ministerial Gazette North Rhine-Westphalia]
ME	Marginal effect
MLE	Maximum likelihood estimation
NPO	Nonprofit organisation
NRW	Nordrhein-Westfalen [North Rhine-Westphalia]
NSC	Nonprofit sports club
OLS	Ordinary least squares
RQ	Research question
SD	Standard deviation
SDR	Sport Development Report
SMR	Sport Management Review
SOEP	Sozio-oekonomisches Panel [German Socio-Economic Panel]
SRA	Sport and Recreation Alliance
SUR	Seemingly unrelated regression
UK	United Kingdom
VIF	Variance inflation factor
VSC	Voluntary sports club
WTP	Willingness-to-pay

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1 Introduction

1.1 Background and relevance

1.1.1 The nonprofit sector

The third, or nonprofit, sector has gained economic and social importance in many developed market economies worldwide. Nonprofit organisations (NPOs) act in a three-sector economy with the private and public sectors (Anheier, 2014) and particularly come into play in situations of market and government failure to satisfy the heterogeneous demand of consumers (Weisbrod, 1988). As such, NPOs are important providers of social, educational, cultural, and health services. They follow welfare-oriented goals and are vital for countries, both on the national and the local, i.e., municipality level (Anheier, 2014; Priller & Zimmer, 2022). Different forms of NPOs exist, including voluntary associations, also called clubs (Weisbrod, 1988), which are "private membership-based organizations in which membership is non-compulsory" (Anheier, 2014, p. 74).

Due to their welfare-oriented objectives, NPOs notably differ from for-profit organisations (FPOs), which follow profit-maximising goals (Bryce, 1992; Littich & Schober, 2013). Nevertheless, their nonprofit orientation does not mean that NPOs cannot make a profit. Instead, they are not allowed to distribute surpluses, a principle known as the non-distribution constraint (Hansmann, 1980). This principle means that NPOs must reinvest the profit made in the organisation to advance its mission and purpose (James, 1990).

Like in other countries, the third sector in Germany is of considerable size. The organisational type of registered associations, or clubs ("Eingetragener Verein", e.V.), plays a special role here, which is why Germany is often called the country of clubs (Alscher et al., 2013; Heinemann & Schubert, 1999; Röbke, 2014). Of a total of around 657,000 NPOs in Germany in 2022 acting in areas like culture, leisure, social services, education, environmental protection, and sports, about 616,000 were registered associations. The remainder comprises nonprofit corporations, nonprofit cooperatives, and civil law foundations with legal capacity (Schubert et al., 2023). Thus, registered associations, or clubs, comprise the most significant part of organisations within the third sector in Germany. Among these organisations' different fields of engagement, sports has the highest number of registered associations in Germany. Recent numbers show that about 87,000 nonprofit sports clubs[1] exist in

[1] Alternatively, the term voluntary sports clubs (VSCs) is used in the literature. In the underlying dissertation, using the short term "sports club" always refers to voluntary, i.e., nonprofit sports clubs.

Germany across the 16 federal states, with about 23.4 million memberships. Thus, in 2022, about 28.1% of the German population were members of (at least) one sports club (DOSB, 2022), and nonprofit sports clubs made up a crucial share of the overall number of registered associations in Germany (Schubert et al., 2023). These facts underline the importance of nonprofit sports clubs for society as an essential source of social capital (Misener & Doherty, 2014; Rittner & Breuer, 2004).

Like in Germany (Breuer et al., 2020; Breuer et al., 2015; Emrich et al., 2001), which is the research context of the underlying dissertation, nonprofit sports clubs are the main pillar of mass sport provision in many European countries (Breuer et al., 2017), for example, in Great Britain (SRA, 2018), Switzerland (Lamprecht et al., 2017), Belgium (Corthouts et al., 2023; Vos et al., 2011), and Norway (Enjolras, 2002). Moreover, also in overseas countries, for example, Canada (Gumulka et al., 2005; Lasby & Sperling, 2007), New Zealand (Cordery et al., 2013), and Australia (Cuskelly, 2004), nonprofit sports clubs are critical players within the sport systems. Nonprofit sports clubs offer a wide variety of affordable sports programmes for different population groups, both in recreational and competitive sports (Doherty & Cuskelly, 2020; Misener & Doherty, 2014) and individual and team sports (Breuer et al., 2020; Heinemann, 2007). Apart from individual needs fulfilled by participating in sports clubs' offers, nonprofit sports clubs also fulfil essential societal functions and produce positive externalities such as social integration, democracy, crime prevention, and health (Breuer, 2012; Nagel et al., 2020; Nagel & Lamprecht, 2022; Rittner & Breuer, 2004). The production of positive externalities and thus their welfare-oriented role for society is one reason why nonprofit sports clubs can receive public funding[2].

1.1.2 Research problem

Public subsidies play, together with donations and particularly membership fees, an important role in the income portfolio of nonprofit sports clubs, which usually consists of various revenue sources (Lamprecht et al., 2017), a typical characteristic for NPOs in general (Anheier, 2014; Schubert et al., 2023; Vilain, 2006). However, research has shown that compared to nonprofits from other areas, the total revenue generated by nonprofit sports clubs is lower (Lasby & Sperling, 2007), and the reliance on membership fees is greater than in other types of nonprofits (Schubert et al., 2023; Weisbrod, 1988; Wicker, Breuer, et al., 2012). Thus, nonprofit sports clubs differ in their financial structure from other types of NPOs, which makes it necessary to examine sports clubs' finances specifically.

[2]Further and more detailed considerations for the legitimisation of public funding for nonprofit sports clubs are reflected by theories on public goods (Weisbrod, 1975), merit goods (Musgrave, 1959), and failure theories (Steinberg, 2006). These theoretical approaches are referred to in chapter two of the underlying dissertation.

Like for NPOs from other areas, a stable financial situation is essential for nonprofit sports clubs to fulfil their mission and goals. Consequently, sports clubs, like other NPOs, must carefully manage their financial resources to avoid potential financial problems (Kearns, 2007), which underlines that thorough financial management is vital for sports clubs. However, research focusing on this particular type of nonprofit organisation in the area of finances is scarce. Therefore, the underlying dissertation addresses the research problem of financing nonprofit sports clubs by examining which factors determine the reception and amount of nonprofit sports clubs' key financial resources and how perceived financial problems can objectively be explained. To address this research problem, certain specificities of nonprofit sports clubs must be considered.

1.1.3 Constitutive and economic features of nonprofit sports clubs

Despite the various social and welfare-oriented functions that nonprofit sports clubs fulfil (Nagel et al., 2020; Nagel & Lamprecht, 2022), the primary goal of clubs in their role as voluntary associations (Anheier, 2014) is to fulfil their members' interests, which is related to the clubs' constitutive features (Heinemann & Horch, 1981; Horch, 1992). The constitutive features encompass voluntary membership, orientation towards the members' interests, democratic decision-making structures, voluntary work, and independence from third parties, i.e., autonomy (Heinemann & Horch, 1981). Additionally, economic features like the role-identity of members and particularly the not-for-profit orientation characterise nonprofit sports clubs (Horch, 1992). Since these constitutive and economic features distinguish voluntary associations, like nonprofit sports clubs, from FPOs (Heinemann, 1984), they need to be considered when investigating the clubs' financial situation and income sources in the underlying dissertation.

First, the lack of profit orientation means that nonprofit sports clubs, like NPOs in general, can make a profit. Still, according to the non-distribution constraint (Hansmann, 1980), they are not allowed to distribute it, i.e., nobody has a legal claim to the organisation's earnings. Nevertheless, surpluses can be accumulated to a certain extent but must be reinvested in the organisation (Rose-Ackerman, 1996). Consequently, NPOs act less efficiently than FPOs because an incentive for generating large amounts of profit, keeping costs particularly low, or eliminating unnecessary expenses is missing (Hansmann, 1980, 1987). In contrast to FPOs, the goal of nonprofit sports clubs is to meet the needs of their members instead of maximising profit (Heinemann, 1995). Concerning finances, this means that the clubs' key financial goal is to reach at least a balanced budget, i.e., to break even (Weisbrod, 1988; Young, 2007c).

Second, membership in nonprofit sports clubs is voluntary, meaning members are free to join and leave the club. This decision to join or leave is most likely connected to the fulfilment of their interests, namely the adequate provision of sports and social activities. In this regard, clubs are independent of third parties, i.e., they act autonomously. In detail, this means that clubs are primarily self-financing, namely through the contributions of their members in the form of membership fees and voluntary work (Heinemann & Horch, 1981). Membership fees are set by the club members at the annual general meeting, usually according to solidarity principles and under democratic decision-making structures, i.e., "one man one vote" (Heinemann, 1995, p. 153). Members act simultaneously as consumers, producers, financiers, and decision-makers (Horch, 1992, 1994). This feature, the role-identity of members, is unique to voluntary associations. For the financing of clubs, it means that the members who pay fees to gain the right to participate in club offers and club life also decide about the level of the fees. Thus, in principle, clubs are financially largely independent of third parties due to the reliance on the members who pool their resources in the form of membership fees and voluntary engagement (Heinemann, 1995; Heinemann & Horch, 1991).

1.1.4 Revenue sources

However, reality shows that there are often deviations from the ideal-typical forms of clubs marked by their constitutive and economic characteristics (Heinemann, 2007). Thus, the independence of third parties does not necessarily mean that clubs do not receive financial support from outside the organisation, e.g., from the state. According to the principle of subsidiarity, sports clubs can be supported by public funds if they have exhausted their own resources (Heinemann & Horch, 1981). Related to the key financial goal of reaching a balanced budget, i.e., to generate sufficient revenue to at least cover the clubs' cost, nonprofit sports clubs, like NPOs in general, usually generate revenue from different sources (Young, 2007c).

Generally, the revenue sources of NPOs can be divided into four major categories: 1) revenue from donations, 2) governmental subsidies, 3) self-generated revenue (e.g., fees), and 4) revenue from investments (von Schnurbein & Fritz, 2017; Wilsker & Young, 2010). This categorisation also applies to nonprofit sports clubs, although clubs in their form as voluntary associations, unlike other types of NPOs, rely most heavily on membership fees (Breuer et al., 2020; Schubert et al., 2023; Weisbrod, 1988; Wicker, Breuer, et al., 2012). Additionally, clubs receive a wide range of other income sources, including, among others, admission fees, public subsidies, donations, self-generated revenue (e.g., through sporting and social events), and sponsorship income (Lamprecht et al., 2017; Wicker, Breuer, et al., 2012). Of these income sources, donations and public subsidies, in addition to membership fees, were found

to be the main financing instruments of voluntary associations (Heinemann & Horch, 1991).

According to German tax law, the revenue of nonprofit sports clubs is divided into four main areas (cf., Vilain, 2006; Wiedemann & Tauber, 2022): the non-material area, asset management, special-purpose operations, and commercial business operations. Apart from membership fees, which made up, on average, more than half of the clubs' total revenue in 2020, on average 10.1% of the revenue stemmed from public subsidies and 9.3% from donations. These three income sources (and admission fees) are summed up under the non-material area and comprise about three-quarters of the clubs' revenue portfolio (see Figure 1.1)[3]. Thus, like in voluntary associations in general (Heinemann & Horch, 1991), these three revenue streams can be regarded as the main financial resources in nonprofit sports clubs and are, therefore, the focus of the underlying dissertation. Managing and optimising these core revenue sources is essential for clubs to minimise financial problems and vulnerability (Kearns, 2007; Young, 2007c).

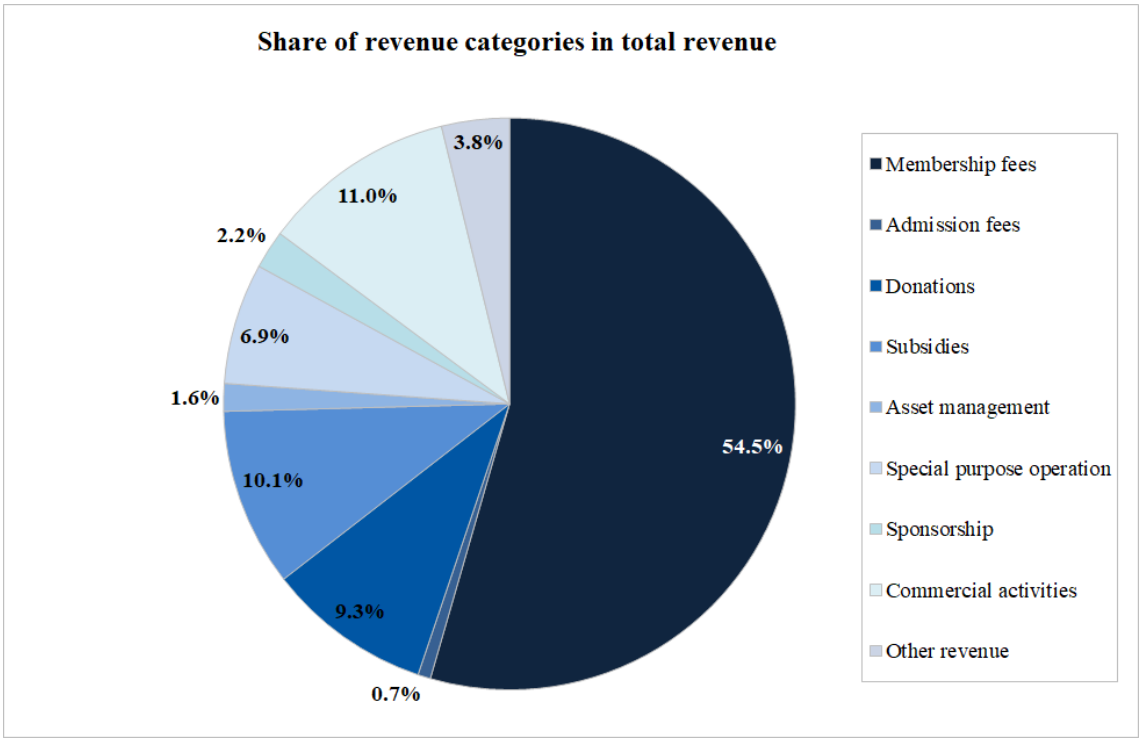

Figure 1.1 Revenue portfolio of nonprofit sports clubs in the year 2020 (own figure, based on data from the 8th wave of the Sport Development Report; see footnote 3).

[3]Figure 1.1 is based on the most recent sports club survey data from the 8th wave of the Sport Development Report (SDR). Data from the 7th wave displaying the distribution of revenue sources (cf., Breuer et al., 2020) differs only slightly from the 8th wave.

In order to provide a complete picture of the clubs' revenue sources, it should be noted that revenue management naturally also applies to the other components of the sports clubs' revenue portfolio. In 2020, an average of 13.2% of the total revenue was from commercial business operations. Of this, 11% is accounted for by general economic activities (e.g., self-operated restaurants, social events, food and beverage sales at sports events), and 2.2% by sponsorship income. Around 7% of the income came from special purpose operations (e.g., course fees, spectator income, and registration fees for sporting events), and only 1.6% of the revenue was from asset management. Other income (e.g., from loans) accounted for an average of just under 4% of income (see Figure 1.1).

1.1.5 Literature overview and research gap

Overall, in order to fulfil their mission and goals, nonprofit sports clubs need to take care of their different income sources since a financially secure situation is vital for the organisations' general success (Young, 2007c). In this regard, it needs to be considered that despite the various revenue sources that clubs rely on, reaching and keeping a stable and healthy financial situation is a challenge for many sports clubs (Lamprecht et al., 2017; Lasby & Sperling, 2007; SRA, 2013). About 14% of the sports clubs in Germany perceive their financial situation as a big or very big problem (Breuer & Feiler, 2022; Coates et al., 2014). Two of the main revenue sources of clubs, namely donations and public subsidies, are subject to fluctuations and reductions and are thus associated with a high degree of uncertainty (Littich & Schober, 2013; Wicker, Breuer, et al., 2012). This means that these external revenue sources[4] are hardly predictable for the clubs and, thereby, might be more problematic for clubs than internal revenue[5] like membership fees (Coates et al., 2014). Particularly donations were found to be more volatile than other income sources (Grønbjerg, 1991), and public subsidies are related to the economic conditions of communities, meaning that when the financial situation in the community is good, subsidies are higher and vice versa (Wicker et al., 2015).

Next to donations and subsidies as external revenue sources, membership fees as the main income source are considered autonomous or internal revenue (Coates et al., 2014; Emrich et al., 2001; Wicker, Breuer, et al., 2012) because club members themselves determine fees and the degree of autonomy is thus higher. Research has shown that a stronger reliance on membership fees leads to lower revenue volatility (Wicker et al., 2015). Still, membership fees need to be set at an adequate level to cover at least the cost related to the provided sports programmes (Wicker, 2011).

[4]Revenue generated from external stakeholders like public institutions (Coates et al., 2014).
[5]Revenue generated from internal stakeholders like club members (Coates et al., 2014).

Consequently, sports clubs need to secure and optimise existing sources of income to avoid financial problems. While perceived financial problems of nonprofit sports clubs have been investigated in the context of organisational capacity (Wicker & Breuer, 2013b, 2014), additional structural determinants (e.g., Wicker & Breuer, 2013a; Wicker et al., 2014), the effect of external funding on financial and volunteer problems (Coates et al., 2014), and financial vulnerability (Cordery et al., 2013, 2018), research on objective financial measures to explain perceived financial problems is missing. In addition, recent developments in terms of financial problems due to the COVID-19 pandemic have not yet been examined.

Pertaining to the different revenue sources, research in the general nonprofit context has dealt, e.g., with the income portfolio and revenue mix (e.g., Fischer et al., 2011; Kearns, 2007), funding sources (e.g., Grønbjerg, 1991; Kearns et al., 2014), revenue diversification (e.g., Carroll & Stater, 2009; Chang & Tuckman, 1994; Chikoto & Neely, 2014; Frumkin & Keating, 2011; Lu et al., 2019), crowding-out and crowding-in effects (e.g., Andreoni & Payne, 2011; Hung, 2023; Kingma, 1995; Payne, 1998), and financial vulnerability (Chang & Tuckman, 1991; Greenlee & Trussel, 2000; Trussel, 2002; Tuckman & Chang, 1991). Furthermore, various studies have analysed the main revenue categories of "pure" nonprofit institutions (Weisbrod, 2004, p. 42), namely donations and public subsidies. In this regard, research has focused mainly on the individual level, e.g., motives for donating (for an overview, see Rooney, 2007). Moreover, determinants of donations and related crowding-out or crowding-in effects of subsidies have been examined in different organisational and national contexts (Khanna & Sandler, 2000; Okten & Weisbrod, 2000). Determinants of public subsidies have only rarely been studied. In her dissertation, Wilsker (2011) investigates the relationship between the finances of NPOs and the level of received government grants. She finds that improvements in efficiency measures are associated with increases in grants. While subsidies and particularly donations have been investigated in a considerable amount of studies, research on membership fees, also called membership dues by some researchers (e.g., Bowman, 2017), is scarce in the general nonprofit context (Bowman, 2017). An exception is a book chapter by Steinberg (2007), who presents an overview of membership income as part of NPOs' income portfolio.

When looking specifically at the context of nonprofit sports clubs, research related to the different funding sources is scarce, with few exemptions. A Flemish study (Vos et al., 2011) investigated whether governments use conditioned subsidies to sports clubs to reach their policy goals. The study found a relationship between the share of governmental subsidies relative to sports clubs' overall revenues and subsidy conditions' adoption. A Norwegian study took a similar direction towards sports policy by developing a theoretical framework for analysing sports clubs as policy implementers (Skille, 2008). A further study in the Norwegian context in-

vestigated crowding-out effects between commercial income and public grants as well as voluntary resources. The author found that neither public funding nor voluntary work is crowded out by commercial activities (Enjolras, 2002). Interaction effects between revenue sources were also investigated in the German sports club context (Wicker, Breuer, et al., 2012). The study found crowding-in effects between donations and revenue from sports supply, including membership fees. Moreover, subsidies were found to crowd in donations and sponsorship income. With regard to revenue diversification in nonprofit sports clubs, a further study from the German context found that organisational mission affects revenue diversification (Wicker et al., 2013). In the context of sponsorship income, research examined the effect of the legal structure (i.e., nonprofit vs. for-profit) on sponsorship income in the context of equestrian sport in Germany. The results revealed that nonprofit equestrian clubs received more sponsorship income than for-profit providers (Wicker, Weingaertner, et al., 2012).

Concerning membership fees, research in the sports club context is mainly descriptive, pointing out that membership fees are the most important revenue source in the income portfolio of nonprofit sports clubs (for an overview, see Wicker, Breuer, et al., 2012). Wicker (2009) analysed sports club members' reactions to increasing membership fees using price elasticity measures and further examined club members' willingness-to-pay (WTP) (Wicker, 2011). Further research also focused on WTP of club members (Kiefer, 2015; Swierzy et al., 2018), finding that club members would on average be willing to pay higher membership fees than they currently pay. Moreover, the pricing of membership fees vs. green fees in the context of a particular sport, namely golf, was investigated using market (golf course attributes) and management (quality certificates) determinants (Huth & Kurscheidt, 2019). To summarise, while some studies have dealt with research questions concerning different areas of sports clubs' income sources, research on determinants of the main income categories is missing but necessary for evidence-based financial management.

Financial management can generally be understood as "planning and implementing the efficient and effective use of financial resources to achieve the goals of the organization" (Coates & Wicker, 2017, p. 117). As for FPOs, financial management is also vital for NPOs, including nonprofit sports clubs. However, due to the distinctive features that differentiate NPOs from FPOs, especially the non-distribution constraint, the mainly welfare-oriented mission, and the various income sources, the financial management of NPOs differs from FPOs (Toepler & Anheier, 2004). In contrast to FPOs, whose primary goal is to maximise profit, generating income is only a means to an end for NPOs in order to have sufficient financial resources to reach the organisational goals (Pajas & Vilain, 2004; Wicker, 2017). Thus, an incentive for sound and solid financial management within NPOs in general, and thereby

also in nonprofit sports clubs, is often missing, and NPOs act, as explained above, less efficiently (Coates & Wicker, 2017).

Although various studies have looked at different aspects of nonprofit finances as described above, a comprehensive concept of nonprofit financing and financial management has long time been rather neglected in research. Young (2007a) provided the first detailed work in this area, particularly for the North American nonprofit sector, and Vilain (2006) for the German perspective. Young (2007b) developed an overall framework for nonprofit finance to understand the composition of nonprofits' revenue portfolios, the so-called benefits theory of nonprofit finance (Young, 2017). In essence, "benefits theory of nonprofit finance stipulates that revenue sources are driven by the public/private nature of an organisation's services" (Young et al., 2010, p. 162). Benefits theory has served as a framework for a number of financial studies in the nonprofit context (e.g., Fischer et al., 2011; Liu & Kim, 2022; Stühlinger & Hersberger-Langloh, 2021; Wilsker & Young, 2010; Young et al., 2010), but mainly from the U.S. context and not related to nonprofit sports organisations.

In the German-speaking context, Vilain (2006) emphasised that further specific research and analysis of financing different types of NPOs is needed. This call includes, among others, nonprofit sports clubs. Investigations into this special type of nonprofit organisation's finances are reasonable since nonprofit sports clubs as voluntary associations differ in various aspects from other nonprofits (Anheier, 2014). First, nonprofit sports clubs rely strongly on membership fees but receive fewer donations on average (Priemer et al., 2016). Second, in sports clubs as membership organisations, the income is used directly to implement the members' interests (Horch, 1992). This situation is different in other types of nonprofits, e.g., charities that support target groups outside the organisation, e.g., homeless people. Third, sports clubs, so far, do not engage in noteworthy fundraising activities, a standard method, e.g., in social and health aid organisations such as the Red Cross or UNICEF (Bücker et al., 2023; Hermann et al., 2022). As part of securing and improving the financial situation, knowledge about the best way to generate donations can play an important part in sound financial management (Pajas & Vilain, 2004).

Summing up, research on the finances of nonprofit sports clubs and their management is scarce, with few exemptions (e.g., Coates et al., 2014; Cordery et al., 2013; Wicker, Breuer, et al., 2012; Wicker et al., 2015; Wicker, Weingaertner, et al., 2012). However, particularly in times of strained municipal budgets and in crisis situations (e.g., the COVID-19 pandemic, energy crisis, refugee crisis), the relevance of financing nonprofit sports clubs and sound financial management has become more important (Coates & Wicker, 2017). In order to establish solid financial management, an evaluation of the clubs' financial situation is required (Wicker, 2017). This includes examining the main income sources of nonprofit sports clubs and factors related to their generation. Moreover, information on factors that can improve or

worsen the overall financial situation of clubs is essential. Knowledge about such factors allows to optimise the generation of the clubs' core income sources, stabilise the financial condition of clubs, and thereby secure the long-term survival of nonprofit sports clubs. As explained above, the state of research in this area is underdeveloped, which reveals the research gap for this dissertation.

1.2 Purpose and overall contribution

The underlying dissertation aims at starting to close the above-described research gap on the finances of nonprofit sports clubs, with the overall purpose of gaining insights into the financing of clubs and financial challenges. Thus, the concrete aim is twofold: First, determinants of the primary income sources of clubs, namely membership fees, donations, and public subsidies, are investigated. Second, to examine the overall financial situation of nonprofit sports clubs, factors that reflect improvements or deteriorations of financial problems measured by objective financial measures and in times of crisis are examined. The two main research questions read as follows:

RQ 1: Which factors are related to the core revenue sources from the non-material area of nonprofit sports clubs, namely membership fees, donations, and subsidies?

RQ 2: Which factors contribute to and reflect the perceived financial situation of nonprofit sports clubs?

The two overarching research questions are investigated in five quantitative studies (chapters 3 to 7), which are published in international sport management (European Sport Management Quarterly (ESMQ) and Sport Management Review (SMR)), sport finance (International Journal of Sport Finance (IJSF)), general nonprofit (Voluntas), and cross-disciplinary (Sustainability) journals. Different theoretical approaches from nonprofit economics, general finance, and management are applied to the context of nonprofit sports clubs. These approaches include, among others, the public goods theory (Weisbrod, 1986), the contract failure theory (Hansmann, 1980, 1987), the theory of club goods and externalities (Buchanan, 1965; Cornes & Sandler, 1986), portfolio theory (Markowitz, 1952), pricing approaches (e.g., Kotler, 1997), and the concept of organisational capacity (Hall et al., 2003). In order to get an understanding of the financial structure of sports clubs' revenue portfolios and embed this dissertation's studies in an overarching theoretical framework, the benefits theory of nonprofit finance (Young, 2007b) is applied to the specific sports club context. Thus, both the individual studies and the dissertation as a whole

make a theoretical contribution to the field of nonprofit financing in general and to financing nonprofit sports clubs in particular.

Additionally, the dissertation contributes empirically to the nonprofit finance and sport management literature by using unique data from a longitudinal study among nonprofit sports clubs in Germany, the so-called Sport Development Report (SDR). Different statistical approaches are applied, and evidence on factors determining the key income sources of sports clubs and perceived financial problems is provided.

Apart from the theoretical and empirical contributions, this dissertation has practical relevance for the management of nonprofit sports clubs as the findings help clubs manage and optimise their financial resources and further help sports federations and confederations to develop support programmes for clubs in terms of finances, which is vital for the survival of the clubs.

1.3 Structure

This dissertation is further structured as follows. In chapter two, the overarching theoretical framework of the dissertation, the benefits theory of nonprofit finance, is introduced. Afterwards, the theory is applied to the context of nonprofit sports clubs as an overall framework for the dissertation. Chapter two closes with the contributions of the dissertation's individual studies as well as how they fit into the overarching theoretical framework.

Chapters three to seven contain the studies conducted. Chapters three, four, and five are each dedicated to one income category (membership fees, donations, subsidies) and thus address the first research question. Chapters six and seven examine the perceived financial problems of nonprofit sports clubs on the basis of objective financial measures (Chapter 6) and in times of the COVID-19 pandemic based on organisational capacities (Chapter 7) and thus address the second research question[6].

The final chapter eight draws an overall conclusion by discussing the findings and answering the research questions. Moreover, the dissertation's contributions and derived implications are presented. Finally, limitations of the dissertation are identified, pointing out the way for future research possibilities.

[6]Note that language usage (British or American English) and citation styles differ in the chapters containing the individual studies based on the guidelines of the respective journal.

1.4 References

Alscher, M., Droß, P. J., Priller, E., & Schmeißer, C. (2013). *Vereine an den Grenzen der Belastbarkeit, WZBrief Zivilengagement, No. 07.* Wissenschaftszentrum Berlin für Sozialforschung (WZB).

Andreoni, J., & Payne, A. A. (2011). Is crowding out due entirely to fundraising? Evidence from a panel of charities. *Journal of Public Economics, 95*(5-6), 334-343. https://doi.org/10.1016/j.jpubeco.2010.11.011

Anheier, H. K. (2014). *Nonprofit Organizations. Theory, management, policy* (2nd ed.). Routledge.

Bowman, H. W. (2017). Toward a Theory of Membership Association Finance. *Nonprofit and Voluntary Sector Quarterly, 46*(4), 772-793. https://doi.org/10.1177/0899764016685860

Breuer, C. (2012). Wie viel Staat braucht der Breitensport? Ökonometrische Evidenzen für ein Europäisches Modell des Breitensports. In M.-P. Büch, W. Maennig, & H.-J. Schulke (Eds.), *Sport und Sportgroßveranstaltungen in Europa – zwischen Zentralstaat und Regionen* (pp. 229-239). University Press.

Breuer, C., & Feiler, S. (2022). *Sports Clubs in Germany: Results from the 8th wave of the Sport Development Report. Sport Development Report for Germany 2020-2022 - Part 1.* Bundesinstitut für Sportwissenschaft.

Breuer, C., Feiler, S., Llopis-Goig, R., & Elmose-Østerlund, K. (2017). *Characteristics of European sports clubs. A comparison of the structure, management, voluntary work and social integration among sports clubs across ten European countries.* University of Southern Denmark.

Breuer, C., Feiler, S., & Rossi, L. (2020). *Sports clubs in Germany: More than just exercise. Key results of the 7th wave of the Sport Development Report (2017/2018) and selected developments over the last 15 years.* Bundesinstitut für Sportwissenschaft.

Breuer, C., Feiler, S., & Wicker, P. (2015). Sport clubs in Germany. In C. Breuer, R. Hoekman, S. Nagel, & H. Van der Werff (Eds.), *Sport clubs in Europe. A cross-national comparative perspective* (pp. 187-208). Springer.

Bryce, H. J. (1992). *Financial and strategic management for nonprofit organizations.* Prentice-Hall, Inc.

Buchanan, J. M. (1965). An economic theory of clubs. *Economica, 32*(125), 1-14.

Bücker, K., Dohmen, C., Floß, A., Fröndhoff, S., Kahmann, C., Schwanewedel, J., & Stolz, J. (2023). *Geschäftsbericht 2022.* Deutsches Komitee für UNICEF e.V.

Carroll, D. A., & Stater, K. J. (2009). Revenue diversification in nonprofit organizations: Does it lead to financial stability? *Journal of Public Administration Research and Theory, 19*(4), 947-966. https://doi.org/10.1093/jopart/mun025

Chang, C. F., & Tuckman, H. P. (1991). Financial vulnerability and attrition as measures of nonprofit performance. *Annals of Public and Cooperative Economics, 62*(4), 655-672. https://doi.org/10.1111/j.1467-8292.1991.tb01372.x

Chang, C. F., & Tuckman, H. P. (1994). Revenue diversification among non-profits. *Voluntas: International Journal of Voluntary and Nonprofit Organizations, 5*(3), 273-290. https://doi.org/10.1007/bf02354036

Chikoto, G. L., & Neely, D. G. (2014). Building Nonprofit Financial Capacity: The Impact of Revenue Concentration and Overhead Costs. *Nonprofit and Voluntary Sector Quarterly, 43*(3), 570-588. https://doi.org/10.1177/0899764012474120

Coates, D., & Wicker, P. (2017). Financial management. In R. Hoye & M. M. Parent (Eds.), *The SAGE Handbook of Sport Management* (pp. 117-137). Sage.

Coates, D., Wicker, P., Feiler, S., & Breuer, C. (2014). A bivariate probit examination of financial and volunteer problems of non-profit sport clubs. *International Journal of Sport Finance, 9*(3), 230-248.

Cordery, C. J., Sim, D., & Baskerville, R. F. (2013). Three models, one goal: Assessing financial vulnerability in New Zealand amateur sports clubs. *Sport Management Review, 16*(2), 186-199. https://doi.org/10.1016/j.smr.2012.08.002

Cordery, C. J., Sim, D., & Baskerville, R. F. (2018). Financial vulnerability in football clubs: learning from resource dependency and club theories. *Third Sector Review, 24*(1), 49-70.

Cornes, R., & Sandler, T. (1986). *The theory of externalities, public goods, and club goods.* Cambridge University Press.

Corthouts, J., Winand, M., & Scheerder, J. (2023). A three-dimensional model of innovation within Flemish non-profit sports organisations. *European Sport Management Quarterly, 23*(3), 853-876. https://doi.org/10.1080/16184742.2021.1936115

Cuskelly, G. (2004). Volunteer retention in community sport organisations. *European Sport Management Quarterly, 4*(2), 59-76. https://doi.org/10.1080/16184740408737469

Doherty, A., & Cuskelly, G. (2020). Organizational Capacity and Performance of Community Sport Clubs. *Journal of Sport Management, 34*(3), 240-259. https://doi.org/10.1123/jsm.2019-0098

DOSB. (2022). *Bestandserhebung 2022.* Deutscher Olympischer Sportbund.

Emrich, E., Pitsch, W., & Papathanassiou, V. (2001). *Die Sportvereine - Ein Versuch auf empirischer Grundlage.* Hofmann.

Enjolras, B. (2002). The commercialization of voluntary sport organizations in Norway. *Nonprofit and Voluntary Sector Quarterly, 31*(3), 352-376. https://doi.org/10.1177/0899764002313003

Fischer, R. L., Wilsker, A., & Young, D. R. (2011). Exploring the revenue mix of nonprofit organizations: does it relate to publicness? *Nonprofit and Voluntary Sector Quarterly, 40*(4), 662-681. https://doi.org/10.1177/0899764010363921

Frumkin, P., & Keating, E. K. (2011). Diversification reconsidered: the risks and rewards of revenue concentration. *Journal of Social Entrepreneurship, 2*(2), 151-164. https://doi.org/10.1080/19420676.2011.614630

Greenlee, J. S., & Trussel, J. M. (2000). Predicting the Financial Vulnerability of Charitable Organizations. *Nonprofit Management and Leadership, 11*(2), 199-210. https://doi.org/10.1002/nml.11205

Grønbjerg, K. A. (1991). How nonprofit human service organizations manage their funding sources: Key findings and policy implications. *Nonprofit Management and Leadership, 2*(2), 159-175. http://dx.doi.org/10.1002/nml.4130020206

Gumulka, G., Barr, C., Lasby, D., & Brownlee, B. (2005). *Understanding the capacity of sports & recreation organizations.* Imagine Canada.

Hall, M. H., Andrukow, A., Barr, C., Brock, K., de Wit, M., Embuldeniya, D., Jolin, L., Lasby, D., Lévesque, B., Malinsky, E., Stowe, S., & Vaillancourt, Y. (2003). *The capacity to serve: A qualitative study of the challenges facing Canada's nonprofit and voluntary organizations.* Canadian Centre for Philanthropy.

Hansmann, H. (1980). The role of nonprofit enterprise. *The Yale Law Journal, 89*(5), 835-902.

Hansmann, H. (1987). Economic theories of nonprofit organization. In W. W. Powell (Ed.), *The nonprofit sector: a research handbook* (pp. 27-42). Yale University Press.

Heinemann, K. (1984). Socioeconomic Problems of Sports Clubs. *International Review for the Sociology of Sport, 19*(3-4), 201-214. https://doi.org/10.1177/101269028401900302

Heinemann, K. (1995). *Einführung in die Ökonomie des Sports.* Hofmann.

Heinemann, K. (2007). *Einführung in die Soziologie des Sports* (5th ed.). Hofmann.

Heinemann, K., & Horch, H.-D. (1981). Soziologie der Sportorganisation. *Sportwissenschaft 11*(2), 123-150.

Heinemann, K., & Horch, H.-D. (1991). *Elemente einer Finanzsoziologie freiwilliger Vereinigungen.* Enke.

Heinemann, K., & Schubert, M. (1999). Sports Clubs in Germany. In K. Heinemann (Ed.), *Sports Clubs in Various European Countries* (pp. 143-167). Hofmann.

Hermann, K., Kohrs, J., Martin, A., Pannhausen, G., & Schröder-Heidtmann, M. (2022). *DRK Jahrbuch 2022.* Deutsches Rotes Kreuz e.V.

Horch, H.-D. (1992). *Geld, Macht und Engagement in freiwilligen Vereinigungen. Grundlage einer Wirtschaftssoziologie von Non-Profit-Organisationen.* Duncker & Humblot.

Horch, H.-D. (1994). On the socio-economics of voluntary associations. *Voluntas: International Journal of Voluntary and Nonprofit Organizations, 5*(2), 219-230.

Hung, C. (2023). To Give or Not to Give? The Influence of Board Giving on Nonprofit External Donations. *Nonprofit and Voluntary Sector Quarterly, 52*(4), 1117-1133. https://doi.org/10.1177/08997640221121358

Huth, C., & Kurscheidt, M. (2019). Membership versus green fee pricing for golf courses: the impact of market and golf club determinants. *European Sport Management Quarterly, 19*(3), 331-352. https://doi.org/10.1080/16184742.2018.1527380

James, E. (1990). Economic theories of the nonprofit sector: A comparative perspective. In H. K. Anheier & W. Seibel (Eds.), *The third sector: comparative studies of nonprofit organizations* (pp. 21-29). de Gruyter.

Kearns, K. (2007). Income portfolios. In D. R. Young (Ed.), *Financing nonprofits. Putting theory into practice* (pp. 291-314). AltaMira Press.

Kearns, K. P., Bell, D., Deem, B., & McShane, L. (2014). How Nonprofit Leaders Evaluate Funding Sources: An Exploratory Study of Nonprofit Leaders. *Nonprofit and Voluntary Sector Quarterly, 43*(1), 121-143. https://doi.org/10.1177/0899764012458038

Khanna, J., & Sandler, T. (2000). Partners in giving: The crowding-in effects of UK government grants. *European Economic Review, 44*(8), 1543-1556. https://doi.org/10.1016/S0014-2921(99)00007-0

Kiefer, S. (2015). Are riding club members willing to pay or work for overall quality improvement? *Managing Sport and Leisure, 20*(2), 100-116. https://doi.org/10.1080/13606719.2014.966614

Kingma, B. R. (1995). Do profits "crowd out" donations, or vice versa? the impact of revenues from sales on donations to local chapters of the American Red Cross. *Nonprofit Management and Leadership, 6*(1), 21-38. https://doi.org/10.1002/nml.4130060104

Kotler, P. (1997). *Marketing Management. Analysis, Planning, Implementation, and Control* (9th ed.). Prentice Hall.

Lamprecht, M., Bürgi, R., Gebert, A., & Stamm, H. (2017). *Sportvereine in der Schweiz. Entwicklungen, Herausforderungen und Perspektiven.* Bundesamt für Sport.

Lasby, D., & Sperling, J. (2007). *Understanding the capacity of Ontario sports and recreation organizations.* Imagine Canada.

Littich, E., & Schober, C. (2013). Finanzierung von NPOs. In R. Simsa, M. Meyer, & C. Badelt (Eds.), *Handbuch der Nonprofit-Organisation. Strukturen und Management* (pp. 289-312). Schäffer-Poeschel.

Liu, Q., & Kim, M. (2022). Benefit-Based Revenue Streams and Financial Health: The Case of Arts and Cultural Nonprofits. *Nonprofit and Voluntary Sector Quarterly, 51*(4), 805-831. https://doi.org/10.1177/08997640211012090

Lu, J., Lin, W., & Wang, Q. (2019). Does a More Diversified Revenue Structure Lead to Greater Financial Capacity and Less Vulnerability in Nonprofit Organizations? A Bibliometric and Meta-Analysis. *Voluntas: International Journal of Voluntary and Nonprofit Organizations, 30*(3), 593-609. https://doi.org/10.1007/s11266-019-00093-9

Markowitz, H. (1952). Portfolio Selection. *The Journal of Finance, 7*(1), 77-91. https://doi.org/10.2307/2975974

Misener, K., & Doherty, A. (2014). In support of sport: Examining the relationship between community sport organizations and sponsors. *Sport Management Review, 17*(4), 493-506. https://doi.org/10.1016/j.smr.2013.12.002

Musgrave, R. A. (1959). *The Theory of Public Finance: A Study in Public Economy.* McGraw-Hill.

Nagel, S., Elmose-Østerlund, K., Ibsen, B., & Scheerder, J. (2020). *Functions of Sports Clubs in European Societies - A Cross-National Comparative Study.* Springer. https://doi.org/10.1007/978-3-030-48535-1

Nagel, S., & Lamprecht, M. (2022). Sport im Verein. In M. Lamprecht & S. Nagel (Eds.), *Sportsoziologie. Einführung* (pp. 143-156). Nomos Verlagsgesellschaft.

Okten, C., & Weisbrod, B. A. (2000). Determinants of donations in private nonprofit markets. *Journal of Public Economics, 75*(2), 255-272. https://doi.org/10.1016/S0047-2727(99)00066-3

Pajas, P., & Vilain, M. (2004). Finance of Nonprofit Organizations. In A. Zimmer & E. Priller (Eds.), *Future of Civil Society. Making Central European Nonprofit-Organizations Work* (pp. 340-366). Springer Fachmedien Wiesbaden.

Payne, A. A. (1998). Does the government crowd-out private donations? New evidence from a sample of non-profit firms. *Journal of Public Economics, 69*(3), 323-345. https://doi.org/10.1016/S0047-2727(98)00005-X

Priemer, J., Labigne, A., & Krimmer, H. (2016). *ZiviZ-Finanzierungsstudie 2015. Weniger Subsidiarität, mehr Wettbewerb in der Zivilgesellschaft?* Edition Stifterverband.

Priller, E., & Zimmer, A. (2022). Der Nonprofit-Sektor in Deutschland. In M. Meyer, R. Simsa, & C. Badelt (Eds.), *Handbuch der Nonprofit-Organisation. Strukturen und Management* (6. ed., pp. 17-35). Schäffer-Poeschel Verlag.

Rittner, V., & Breuer, C. (2004). *Gemeinwohlorientierung und soziale Bedeutung des Sports* (2nd ed.). Sport und Buch Strauß.

Röbke, T. (2014). Der Verein als Form zivilgesellschaftlicher Selbstorganisation. In BBE (Ed.), *Gewinnung, Qualifizierung und Entwicklung ehrenatmlicher Vereinsvorstände* (pp. 9-24). Bundesnetzwerk Bürgerschaftliches Engagement (BBE).

Rooney, P. (2007). Individual giving. In D. R. Young (Ed.), *Financing nonprofits. Putting theory into practice* (pp. 23-44). AltaMira Press.

Rose-Ackerman, S. (1996). Altruism, nonprofits, and economic theory. *Journal of Economic Literature, 34*(2), 701-728.

Schubert, P., Tahmaz, B., & Krimmer, H. (2023). *Erste Befunde des ZiviZ-Survey 2023 Zivilgesellschaft in Krisenzeiten: Politisch aktiv mit geschwächten Fundamenten.* ZiviZ im Stifterverband.

Skille, E. Å. (2008). Understanding sport clubs as sport policy implementers: A theoretical framework for the analysis of the implementation of central sport policy through local and voluntary sport organizations. *International Review for the Sociology of Sport, 43*(2), 181-200. https://doi.org/10.1177/1012690208096035

SRA. (2013). *Sports club survey 2013. A review of clubs including membership, facility access, finances, challenges and opportunities.* Sport and Recreation Alliance.

SRA. (2018). *Sports Club Survey Report 2017/18.* Sport and Recreation Alliance.

Steinberg, R. (2006). Economic theories of nonprofit organizations. In W. W. Powell & R. Steinberg (Eds.), *The non-profit sector. A research handbook* (2nd ed., pp. 117-139). Yale University Press.

Steinberg, R. (2007). Membership income. In D. R. Young (Ed.), *Financing nonprofits. Putting theory into practice* (pp. 121-155). AltaMira Press.

Stühlinger, S., & Hersberger-Langloh, S. E. (2021). Multitasking NPOs: An Analysis of the Relationship Between Funding Intentions and Nonprofit Capacities. *Voluntas: International Journal of Voluntary and Nonprofit Organizations, 32*(5), 1042-1053. https://doi.org/10.1007/s11266-021-00364-4

Swierzy, P., Wicker, P., & Breuer, C. (2018). Willingness-to-Pay for Memberships in Nonprofit Sports Clubs: The Role of Organizational Capacity. *International Journal of Sport Finance, 13*(3), 261-278.

Toepler, S., & Anheier, H. K. (2004). Organizational Theory and Nonprofit Management: An Overview. In A. Zimmer & E. Priller (Eds.), *Future of Civil Society. Making Central European Nonprofit-Organizations Work* (pp. 252-270). Springer Fachmedien Wiesbaden.

Trussel, J. M. (2002). Revisiting the Prediction of Financial Vulnerability. *Nonprofit Management and Leadership, 13*(1), 17-31. https://doi.org/10.1002/nml.13103

Tuckman, H. P., & Chang, C. F. (1991). A Methodology for Measuring the Financial Vulnerability of Charitable Nonprofit Organizations. *Nonprofit and Voluntary Sector Quarterly, 20*(4), 445-460. https://doi.org/10.1177/089976409102000407

Vilain, M. (2006). *Finanzierungslehre für Nonprofit-Organisationen. Zwischen Auftrag und ökonomischer Notwendigkeit.* VS Verlag für Sozialwissenschaften.

von Schnurbein, G., & Fritz, T. M. (2017). Benefits and Drivers of Nonprofit Revenue Concentration. *Nonprofit and Voluntary Sector Quarterly, 46*(5), 922-943. https://doi.org/10.1177/0899764017713876

Vos, S., Breesch, D., Késenne, S., Van Hoecke, J., Vanreusel, B., & Scheerder, J. (2011). Governmental subsidies and coercive pressures. Evidence from sport clubs and their resource dependencies. *European Journal for Sport and Society, 8*(4), 257-280. https://doi.org/10.1080/16138171.2011.11687882

Weisbrod, B. A. (1975). Toward a theory of the voluntary nonprofit sector in a three-sector economy. In E. Phelps (Ed.), *Altruism, Morality, and Economic Theory* (pp. 171–195). Russell Sage Foundation.

Weisbrod, B. A. (1986). Toward a theory of the voluntary nonprofit sector in a three-sector economy. In S. Rose-Ackerman (Ed.), *The economics of nonprofit institutions. Studies in structure and policy* (pp. 21-44). Oxford University Press.

Weisbrod, B. A. (1988). *The Nonprofit Economy.* Harvard University Press.

Weisbrod, B. A. (2004). The pitfalls fo profits. *Stanford Social Innovation Review, 2*(3), 40-47. https://doi.org/10.48558/82vx-ym41

Wicker, P. (2009). *Perspektiven und Grenzen der Beitragsfinanzierung von Sportvereinen - Eine Analyse zur Theorie und Empirie der Beitragselastizität im Sportverein.* [Dissertation]. Institut für Sportökonomie und Sportmanagement. Deutsche Sporthochschule Köln.

Wicker, P. (2011). Willingness-to-Pay in Non-Profit Sports Clubs. *International Journal of Sport Finance, 6*(2), 155-169.

Wicker, P. (2017). Finanzierung von Sportvereinen. In L. Thieme (Ed.), *Der Sportverein - Versuch einer Bilanz* (pp. 335-353). Hofmann-Verlag.

Wicker, P., & Breuer, C. (2013a). Exploring the critical determinants of organisational problems using data mining techniques: evidence from non-profit sports clubs in Germany. *Managing Leisure, 18*(2), 118-134. https://doi.org/10.1080/13606719.2013.752211

Wicker, P., & Breuer, C. (2013b). Understanding the importance of organizational resources to explain organizational problems: Evidence from nonprofit sport clubs in Germany. *Voluntas: International Journal of Voluntary and Nonprofit Organizations, 24*(2), 461-484. https://doi.org/10.1007/s11266-012-9272-2

Wicker, P., & Breuer, C. (2014). Exploring the organizational capacity and organizational problems of disability sport clubs in Germany using matched pairs analysis. *Sport Management Review, 17*(1), 23-34. https://doi.org/10.1016/j.smr.2013.03.005

Wicker, P., Breuer, C., & Hennigs, B. (2012). Understanding the interactions among revenue categories using elasticity measures - Evidence from a longitudinal sample of non-profit sport clubs in Germany. *Sport Management Review, 15*(3), 318-329. https://doi.org/10.1016/j.smr.2011.12.004

Wicker, P., Breuer, C., Lamprecht, M., & Fischer, A. (2014). Does club size matter: An examination of economies of scale, economies of scope, and organizational problems. *Journal of Sport Management, 28*(3), 266-280.

Wicker, P., Feiler, S., & Breuer, C. (2013). Organizational mission and revenue diversification among non-profit sports clubs. *International Journal of Financial Studies, 1*(4), 119-136. https://doi.org/10.3390/ijfs1040119

Wicker, P., Longley, N., & Breuer, C. (2015). Revenue volatility in German nonprofit sports clubs. *Nonprofit and Voluntary Sector Quarterly, 44*(1), 5-24. https://doi.org/10.1177%2F0899764013499072

Wicker, P., Weingaertner, C., Breuer, C., & Dietl, H. (2012). The effect of a sports institution's legal structure on sponsorship income: The case of amateur equestrian sports in Germany. *International Journal of Sport Finance, 7*(4), 340-357.

Wiedemann, F., & Tauber, A.-K. (2022). *Steuertipp Gemeinnützige Vereine.* Ministerium der Finanzen Rheinland-Pfalz.

Wilsker, A. L. (2011). *The determinants of private contributions and government grants to nonprofit organizations* [Economics Dissertations, Paper 76]. Department of Economics, Georgia State University.

Wilsker, A. L., & Young, D. R. (2010). How Does Program Composition Affect the Revenues of Nonprofit Organizations?: Investigating a Benefits Theory of Nonprofit Finance. *Public Finance Review, 38*(2), 193-216. https://doi.org/10.1177/1091142110369238

Young, D. R. (2007a). *Financing nonprofits. Putting theory into practice.* AltaMira Press.

Young, D. R. (2007b). Toward a normative theory of nonprofit finance. In D. R. Young (Ed.), *Financing nonprofits. Putting theory into practice* (pp. 339-372). AltaMira Press.

Young, D. R. (2007c). Why study nonprofit finance? In D. R. Young (Ed.), *Financing nonprofits. Putting theory into practice* (pp. 3-20). AltaMira Press.

Young, D. R. (2017). *Financing nonprofits and other social enterprises. A benefits approach.* Edward Elgar Publishing Limited.

Young, D. R., Wilsker, A. L., & Grinsfelder, M. C. (2010). Understanding the determinants of nonprofit income portfolios. *Voluntary Sector Review, 1*(2), 161-173. https://doi.org/10.1332/204080510x511229

2 Theoretical framework

2.1 Benefits theory of nonprofit finance

2.1.1 Core of benefits theory

Nonprofit organisations are required to raise sufficient revenue to address their mission and goals. In this regard, it is essential to understand which revenue sources can be pursued related to the offered services, how the composition and structure of the income portfolio might look like, and, consequently, how the organisation can be financed. In order to offer guidance in addressing and understanding these challenges, Young (2007) developed an overall framework, which he first described as "a comprehensive normative theory of nonprofit finance" (Young, 2007, p. 340). In a subsequent paper, the theory was titled "benefits theory of nonprofit finance" (Wilsker & Young, 2010, p. 196), or simply benefits theory. In short, benefits theory postulates that the income sources of a nonprofit organisation "should correspond with the nature of benefits conferred on, or of interest to, the providers of those resources" (Young, 2007, p. 341). Young (2007) explains that each revenue source has an economic rationale, meaning that the supply and demand sides need to be considered in financial management. In other words, "nonprofits must understand how what they are providing is of value to those who might support them" (Young, 2007, p. 341).

Since nonprofits' missions and related benefits are diverse, NPOs should seek to generate revenue from different sources. Young (2007, p. 342) postulates that "each source of income has its place – different types of income are appropriate to support different missions and services". This statement means that a nonprofit organisation should develop an income portfolio which best reflects its mission, services, and the mix of related benefits that accrue for potential revenue providers (Young, 2007, 2017). Moreover, income portfolios need monitoring and possible adaptions if financial or strategic problems arise, e.g., if a nonprofit fails to break even, i.e., cover expenses with procured revenue streams.

The benefits theory of nonprofit finance has its roots in earlier work on nonprofit economics, including failure theories and the nature of goods (for an overview, see Steinberg, 2006), aspects of Weisbrod's works on the so-called "collectiveness index" (Weisbrod, 1988), and the idea of nonprofits as "multiproduct" firms (Weisbrod, 1998). These theoretical foundations are briefly described below as they are relevant to the studies of this dissertation and the overall framework.

2.1.2 Economic foundations of benefits theory

The description of the nature of goods dates back to Samuelson (1954), who defined "collective consumption goods" (Samuelson, 1954, p. 387), better known as "pure public goods" (Steinberg, 2006, p. 119), as nonrival and nonexcludable, meaning that the consumption by one individual does not diminish the consumption of any other individual and that consumers cannot be prevented (or only at high cost) from consumption once the good is produced. Typical examples of a pure public good are national defence and air pollution control (Hansmann, 1980, 1987). On the contrary, pure private goods are excludable and rival, e.g., food or clothes (Anheier, 2014).

The public sector initially produces public goods since private markets are inefficient in providing public goods, a situation known as market failure (Hansmann, 1980; Kingma, 1997; Steinberg, 2006). In the first economic theory on the role of NPOs in a three-sector economy, Weisbrod (1975) argued that governments provide public goods but only at the level to satisfy the median voter, thereby leaving heterogeneous demands unfulfilled (Kingma, 1997). In such situations of government failure, NPOs step in to satisfy the demand for public goods (also called collective goods). Since nonprofits meet demands undersupplied by public institutions or, according to the concept of "third-party government" (Salamon, 1987), governments recognise that nonprofits are more effective in offering the services and thus enter into partnerships with them, NPOs can seek public funding. Additionally, NPOs receive donations from people who are interested in increasing the output quality or quantity of the collective good (Steinberg, 2006).

Hansmann (1980) provided an additional approach to explaining why NPOs exist in a three-sector economy and why NPOs are preferred over FPOs for certain types of private goods. In situations of asymmetric information, i.e., when consumers feel unable to evaluate the provided good (e.g., daycare for children), NPOs are regarded as more trustworthy than for-profit organisations due to the non-distribution constraint. Nonprofits have no incentive to provide insufficient quality or quantity for excessive prices because of the missing profit-maximisation goal. The approach became known as the contract-failure theory or trust-related theory (Anheier, 2014).

While the focus of earlier considerations of economists regarding the nature of goods was on the two poles of "purely public" and "purely private" (Cornes & Sandler, 1986), Olson (1965) and Buchanan (1965) started analysing the spectrum of goods. These views included goods that were neither purely public nor purely private, so-called impure public goods (Sandler & Tschirhart, 1997) or quasi-public goods (Anheier, 2014). Buchanan (1965) developed an economic theory of clubs to overcome the gap between purely public and purely private goods. Buchanan (1965) considered clubs as private, nongovernmental organisations as alternatives for providing a special class of public goods. These so-called club goods are goods "whose

benefits are excludable but partially nonrival" (Cornes & Sandler, 1986, p. 9). Club goods are distinguished from pure public goods by various features, including the existence of an exclusion mechanism, e.g., in the form of membership fees. Through charging such fees to members, non-members are excluded from participation in the club (Sandler & Tschirhart, 1997). Moreover, since a club is considered a voluntary group of people that derive mutual benefits from sharing production cost and common interests, club goods can be subject to some rivalry if crowding takes place and, at some point, congestion sets in, especially with increasing membership numbers (Buchanan, 1965; Cornes & Sandler, 1986; Sandler & Tschirhart, 1997). Thus, by using the degrees of "excludable" and "rival", most goods can be described: "The degree of excludability depends mainly on the cost of excluding nonpayers, and the degree of rivalry depends primarily on the extent to which crowding affects the quality of provision." (Ben-Ner & Van Hoomissen, 1991, p. 525).

Weisbrod not only developed the public goods theory (1975) but was also one of the first to suggest a connection between the kind of services provided by nonprofits and the revenue sources. In this regard, Weisbrod (1988) developed a collectiveness index which reflects a nonprofit's position within a spectrum from purely private to purely public, thereby describing the manifold types of NPOs (Weisbrod, 1988). The idea of a collectiveness index is to "reflect the degree to which an organization provides external social benefits" (Weisbrod, 1988, p. 75), where collectiveness is a measure of the revenue share stemming from contributions, gifts, or grants. An organisation providing "purely collective goods" (Weisbrod, 1988, p. 75), where the benefits produced accrue to persons without payment requirements, would have the highest possible collectiveness index and would most likely receive public funding. On the other hand, organisations providing only private goods would generate revenue mainly from sales or, if the private good is rather a club good, from membership fees. Thereby, the index reflects the relationship between the outputs of a nonprofit and the obtained revenue streams, or, in other words, it "highlights the important relationship between the financing of any organization and the kinds of services provided" (Weisbrod, 1988, p. 59).

Weisbrod (1998) also developed the approach of multiproduct organisations, where nonprofits are viewed as producing three types of goods: a preferred collective good, a preferred private good, and a nonpreferred private good. The nonpreferred private good is not directly mission-related but may serve as a potential source to generate revenue to finance the primary mission-related good. Weisbrod (1998) related each of the three named goods to three corresponding revenue sources: donations (including gifts and grants), user fees, and ancillary (commercial) activities.

Summing up, NPOs can be described as private organisations producing collective goods and mixed goods with private and public components, which include club goods (Anheier, 2014; Buchanan, 1965; James, 1990; Sandler & Tschirhart, 1997;

Weisbrod & Dominguez, 1986). Moreover, NPOs offer goods with positive externalities (Anheier, 2014; Cornes & Sandler, 1986; Rooney, 2007). The aforementioned theoretical considerations build the basis for the benefits theory of nonprofit finance. Due to market and government failure, nonprofits come into play and provide the goods and services in demand, relying on different revenue sources like fees for services, donations, and public subsidies. Additionally, nonprofits might seek further commercial income by providing private goods to cross-subsidise the core product or service. Thus, depending on the nature of the goods, services, and related benefits provided by NPOs, potential revenue sources emerge. Therefore, benefits theory makes fundamental use of the concept of exchange between provided goods and benefits and related funding sources (Young, 2017), which is further elaborated in the following section.

2.1.3 The nature of benefits

In essence, benefits theory assumes that by pursuing its mission, a nonprofit organisation "generates a specific mix of public and private benefits for its various beneficiary groups" (Young, 2017, p. 39). In turn, these beneficiaries support the nonprofit with different types of financing mechanisms. Benefits theory classifies nonprofits' goods and related benefits into four categories: private, group, public, and trade (or exchange) benefits (Young, 2007, 2017).

Private benefits accrue to individuals who are willing to pay for them, e.g., in the form of fees. Group benefits accrue to a subgroup of society (e.g., art or sports lovers), which are mostly valued by donors who want to support these groups. Public benefits accrue to large segments of society (e.g., nonprofits active in crime prevention), which justify public funding. Trade (or exchange) benefits accrue to groups or institutions that offer resources to nonprofits in exchange for public recognition or visibility, e.g., sponsors. While private and trade benefits are received by individuals or corporations in market-like transactions and, therefore, are more likely to generate earned income such as fees for services, commercial sales, or sponsorship revenue, public and group benefits are received by wider groups, which are not accounted for in a market and therefore likely to be financially rewarded with donations and public subsidies (Young, 2007). Most NPOs do not simply produce one kind of good but a mixture of them. This means that the offered services might benefit individual participants but simultaneously generate substantial benefits for society, i.e., positive externalities. Consequently, nonprofits can seek a mixture of revenue sources (Young, 2017).

Bowman (2017) slightly modified the benefits theory by focusing specifically on membership association finance and integrating the economic theory of clubs (Buchanan, 1965) into his approach. He postulated that neither benefits theory

of nonprofit finance nor portfolio theory, which he called "the two main theories of revenue composition" (Bowman, 2017, p. 773), accounted for specificities of revenue from dues, with dues being members' annual financial obligations towards the association. Bowman defined an association "as a private, self-governing organization that produces shared benefits for its members". Because such shared benefits were not represented by the four benefit categories within the first publication on benefits theory (Young, 2007), Bowman (2017) added a fifth category which he called associational benefits. Bowman (2017, p. 777) explained that "associational benefits are public goods within an association from which non-members are excluded from consuming". Thus, associational benefits are club goods. Bowman (2017) explained that, in contrast to associational benefits, private benefits are available to members and non-members. In Young's second book publication on benefits theory (Young, 2017), he took up Bowman's idea of associational benefits and assigned them to the group benefits, arguing that "Group goods also include associative and relational goods which resemble toll goods because they are excludable but non-rival within the context of an identifiable group" (Young, 2017, p. 70). An example would be shared benefits by members in a club, e.g., the usage of facilities or satisfaction through social interactions with other members. Young (2017), in accordance with what Bowman (2017) had suggested, states that membership dues (or fees) would be the most adequate revenue source for associative type goods.

Summing up, Figure 2.1 offers an overview of benefits theory based on Young's (2007, 2017) work.

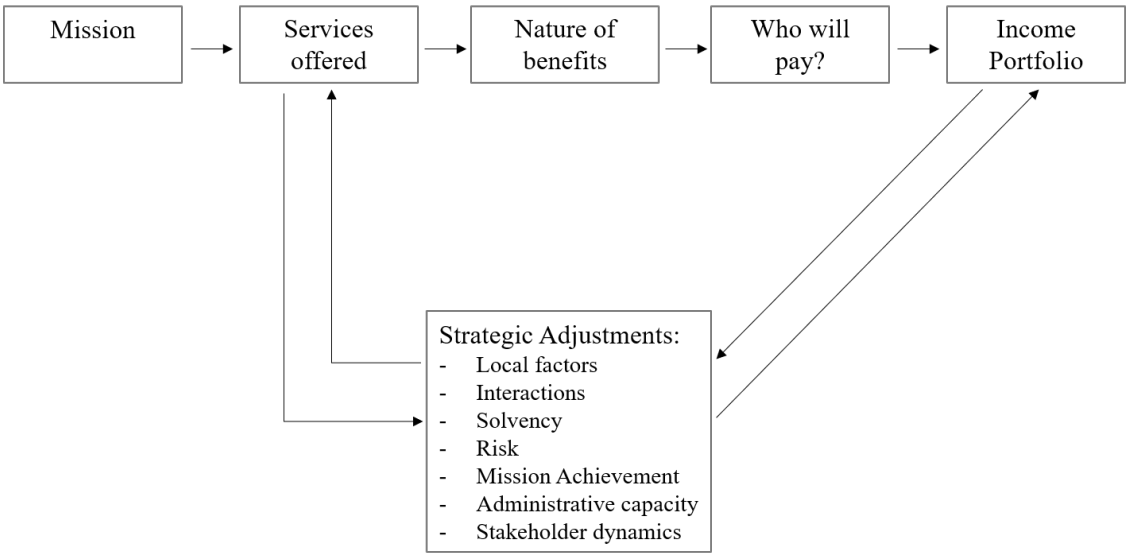

Figure 2.1 Overall structure of benefits theory of nonprofit finance (Young, 2017, p. 43).

The nonprofit's mission determines the services provided, which lead to produced goods and benefits. Related to the nature of benefits, different income sources can be pursued, which finally make up the income portfolio. This process needs monitoring and possible strategic and financial adaptions to account for environmental and organisational factors and challenges (e.g., interaction between revenue sources, overall financial health, organisational capacity for financial management, tight public budgets, competition, etc.; cf. Figure 2.1).

2.1.4 Application of benefits theory in empirical research

So far, the benefits theory of nonprofit finance has only been applied and tested in a few empirical studies. The first to do so were Wilsker and Young (2010), who tested benefits theory on a sample of Jewish Community Centres by examining the connection between expenses for programme services and generated revenue streams. They found that revenue sources are associated with the programme mix of nonprofits. For one, a connection between expenses on programmes of a relatively private nature, such as health services, and earned fee income was revealed. Second, expenditures on programmes of a more public nature (special service programmes to disadvantaged population groups) were related to increasing revenue shares from government and institutional philanthropy. Overall, the authors concluded that programmes drive revenue sources so that the results are in accordance with benefits theory.

Further studies by the same or similar group of authors (Fischer et al., 2011; Young et al., 2010) and different researchers (Kim et al., 2018; Park & Peng, 2020) came to similar results, confirming the connection between the nature of goods and services provided and the generated income mix. Few studies have further applied or extended benefits theory in countries like Switzerland (Aschari-Lincoln & Jäger, 2016) or by combining it with other theoretical approaches (Stühlinger & Hersberger-Langloh, 2021). Liu and Kim (2022) added to the body of research by investigating whether pursuing a benefit-based revenue strategy leads to better financial health, measured by different financial ratios (solvency, profitability, liquidity, and margin). They found a non-linear relationship, meaning a positive relationship only applies when the share of benefit-based revenue is above a specific threshold.

Overall, empirical studies applying benefits theory are still in their infancy. However, existing results suggest that NPOs seem to connect their provided services to potential revenue sources implicitly; i.e., in practice, NPOs seem to follow this financing strategy intuitively (Young, 2017). Recent survey data on NPOs in Germany also suggests that the composition of the revenue portfolio of NPOs depends on the types of activities offered (Schubert et al., 2023). Nevertheless, the strategy suggested by benefits theory might help to fully exploit the potential of additional

revenue sources. In other words, NPOs should be aware of and understand the different benefits they provide to generate the full potential of available financial resources.

2.2 Adaption of benefits theory to nonprofit sports clubs

2.2.1 Benefits of nonprofit sports clubs

Vilain (2006) postulated that investigations of nonprofit finances in different fields of activity (e.g., sports) and different types of NPOs (e.g., associations/clubs) would be beneficial to increase the practical relevance of a nonprofit financing theory. In this regard, the benefits theory of nonprofit finance is a valuable framework to be adapted to nonprofit sports clubs since clubs differ in their financial structure from many other NPOs (Schubert et al., 2023; Steinberg, 2007; Wicker et al., 2012). As membership associations, sports clubs rely most heavily on membership fees and, to a lesser extent, on other revenue sources like public subsidies, donations, and earned income (as shown in Figure 1.1 in section 1.1.4). Following benefits theory, this financial structure can be attributed to the different benefits provided by sports clubs, namely, first and foremost, associational benefits, but also public, group, private, and trade benefits. The different income sources of nonprofit sports clubs and their theoretical rationales according to benefits theory are discussed in the following sub-sections.

2.2.1.1 Membership fees

Nonprofit sports clubs, as voluntary membership associations, offer club goods (Heinemann, 1995), where members pool their resources to share production costs (Wicker, 2011). Thus, sports clubs produce associational benefits provided explicitly to members, from which non-members are excluded (Bowman, 2017). Membership benefits in sports clubs are thus confined to members and shared simultaneously by all members (Young, 2017). Associational benefits are typically financed by individuals paying membership fees, thereby becoming club members and gaining the right to take part in the club's activities. Membership fees are not regarded as traditional prices but as payment for a general usage right of the club's services (Horch, 1992). Thus, since the key mission of nonprofit sports clubs is to satisfy their members (Horch, 1994), and members receive mutual benefit from their membership (Bowman, 2017), it is, according to benefits theory, straightforward that the highest share of the revenue mix of sports clubs stems from membership fees.

The strong reliance on membership fees as the main revenue source can, according to benefits theory, also be underpinned by the distribution of the clubs' expenses. As shown by Wilsker and Young (2010), expenses for programmes to individuals were associated with a dependence on earned fee income. Transferred to sports clubs, descriptive results show that the largest share of expenses in sports clubs amounts to sports operations, i.e., the core sports product offered to members (about 41%) and personnel (about 21%), which include coaches (Breuer et al., 2020). These expenses can be regarded as proxies for the main sports programmes offered to members. The average share of membership fees in the income portfolio (about 55%) reflects the share of sports-related expenses to large extents, which is important to maintain club operations (Fischer & Tschurer, 2011; Wicker, 2011). However, it is clear that membership fees are not sufficient to cover all of the clubs' expenses, which means clubs must seek further income sources.

2.2.1.2 Donations

The services and offers by nonprofit sports clubs mainly address club members. However, sports clubs' offers can also have the character of collective goods or goods with positive externalities if benefits arise to wider groups of society outside the club (Kingma, 1997). Examples of positive externalities of the output of sports clubs are integration, youth promotion, health, and crime prevention (Nagel et al., 2020; Ulseth, 2004). Such benefits can, e.g., especially accrue to different population groups (migrants, youth, elderly) or to people living in the club's municipality or neighbourhood (which could also be club members), i.e., subgroups of society. Economists argued that organisations generating higher social benefits are more likely to receive donations (Preston, 1988). Accordingly, benefits theory postulates that group benefits are particularly valued by donor support (Young, 2007). For example, donating to a sports club might lead to more offers for children and adolescents and, thereby, a better infrastructure for the youth population in the respective municipality. Moreover, individuals or corporations whose philanthropic interests especially correspond to such groups and who value the services of the clubs might decide to support them.

It should be noted that the above-described positive functions and externalities of sports clubs can also affect larger parts of society, not only subgroups. Young (2007) states that the demarcation line between group and public benefits can be blurry, meaning both benefits can be financially rewarded with donations and/or government grants.

2.2.1.3 Subsidies

Nonprofit sports clubs fulfil important societal functions, including the creation of social capital, democracy, and health (Rittner & Breuer, 2004), and thereby produce public benefits. For example, preserving and promoting the population's health is an important argument when public institutions support sports with direct payments or the provision of sports infrastructure (Lamprecht et al., 2022). Another example of a public benefit of sports clubs is national sporting success, which leads to civic pride, which can be regarded as a collective good (Gratton & Taylor, 2000). According to benefits theory (and its foundation in failure theories), public benefits are mainly financed through public subsidies and grants (Young, 2017).

At this point, it seems valuable to extend the arguments of benefits theory for public funding by a further theoretical approach. That is, the concept of merit goods, which derives from Musgrave (1959, p. 13), who defined merit goods as goods which are "provided for through the public budget, over and above what is provided for through the market and paid for by private buyers". Thus, merit goods are characterised by the fact that their supply is desirable for the population, but individual demand is insufficient to cover the costs of their provision. Therefore, merit goods are publicly subsidised. This mechanism also applies to the area of sports (Breuer, 2012; Heinemann, 1995). If the market were the only medium to coordinate the provision of sports offers, i.e., without any political or public intervention, collective demand would remain below the socially desirable level. Moreover, a purely commercial provision of sports offers would lead to a reduction in the variety of sports offers, meaning that a wide variety of sports programmes, as provided by nonprofit sports clubs and their numerous volunteers, could not be offered (Breuer, 2010). Consequently, clubs' outputs are regarded as merit goods due to their socially desirable functions and services. In combination with failure theories, which build the basis for benefits theory, clubs are eligible to receive public funding (Breuer, 2010; Rittner & Breuer, 2002).

2.2.1.4 Earned income

Earned income in terms of benefits theory is related to private benefits and includes, e.g., revenue from commercial sales, fees for services, rental income and special events. Further commercial income through partnerships with sponsors is related to trade benefits (Young, 2017). In nonprofit sports clubs, earned income can be divided into three areas: income from special purpose operations, income from commercial business activities, and sponsorship income (cf. Figure 1.1 in section 1.1.4). In terms of benefits theory, the three areas are related to different types of private and trade benefits.

Special purpose operations are related to the sports clubs' mission but are characterised as private goods. A typical example are sports courses, which, economically, are characterised as preferred private goods (Weisbrod, 1998). Because nonprofit sports clubs can be regarded as more trustworthy than FPOs (Hansmann, 1980), e.g., commercial fitness centres, consumers might favour courses in sports clubs. Preferred private goods are typically financed by user fees since consumers obtain private benefits from participation.

Another possibility for sports clubs to generate earned income is through commercial business activities, such as self-operated restaurants or food and beverage sales at sport events. Such income is related to nonpreferred private goods (Weisbrod, 1998), which helps to finance the mission-related sports programmes of clubs (Young, 2017).

The third area in which nonprofit sports clubs generate additional commercial income is related to trade benefits in the sense of benefits theory. Such benefits would accrue in partnerships between nonprofit sports clubs and institutions or individuals that, e.g., sponsor clubs in the form of jersey and equipment provision. Such sponsorships are regarded as a bartered exchange since they increase exposure for the sponsor and revenue for the club (Young, 2007). This source of funding accounts for a share of around 2% of the income portfolio and is currently only used by a minority of sports clubs, leaving potential room for increases. According to recent data on German sports clubs' revenue sources, about one-fifth of clubs receive revenue from advertising contracts for perimeter boards, about 10% of clubs have income through contracts for displays or ads, and about 9% receive income from advertising contracts for jerseys and equipment (Breuer & Feiler, 2022).

2.2.2 A framework for financing nonprofit sports clubs

Having discussed the different benefits and related funding sources of nonprofit sports clubs, the overall process of benefits theory (cf. Figure 2.1) is adapted to sports clubs in the following. Nonprofit sports clubs' mission and collective main goals are derived from the members' interests, underlining that sports clubs typically provide club goods in the first place (Heinemann, 1995). Individuals join sports clubs to participate in sports and social offers. Therefore, typical goals of sports clubs include offering competitive sports, mass sports, and sociability (Nagel, 2008). These offers can differ between sports clubs as some clubs might be more focused on competition and elite sport, while others might offer more leisure sports activities or health sport or put a higher value on conviviality. Some clubs might only offer one type of sport (single-sport clubs), whereas multisports clubs offer a variety of sports. Some sports clubs might also provide activities to non-members, such as course offers. A combination of goals and services is possible, leading to a heterogeneous landscape

of sports clubs (Nagel & Lamprecht, 2022) and a combination of benefits. If, for example, a sports club has special offers for socially vulnerable groups (e.g., people with low incomes or people with a migration background), such activities produce both private or associational benefits and public benefits (Aschari-Lincoln & Jäger, 2016): private/associational benefits in the sense of offering sports to individuals, and public benefits in the sense of, e.g., crime prevention by getting people involved in clubs and off the streets.

Summing up, depending on the mission, goals, and the related mix of services and benefits, the funding opportunities and the resulting income portfolio of sports clubs differ. Adjustments to this process of revenue generation might be necessary, e.g., if financial problems arise. The overall developed framework for financing nonprofits sports clubs, based on benefits theory (Young, 2017), association finance (Bowman, 2017), sports clubs' key mission of satisfying their members' interests (Horch, 1994), and typical club goals (Nagel, 2008) is displayed in Figure 2.2.

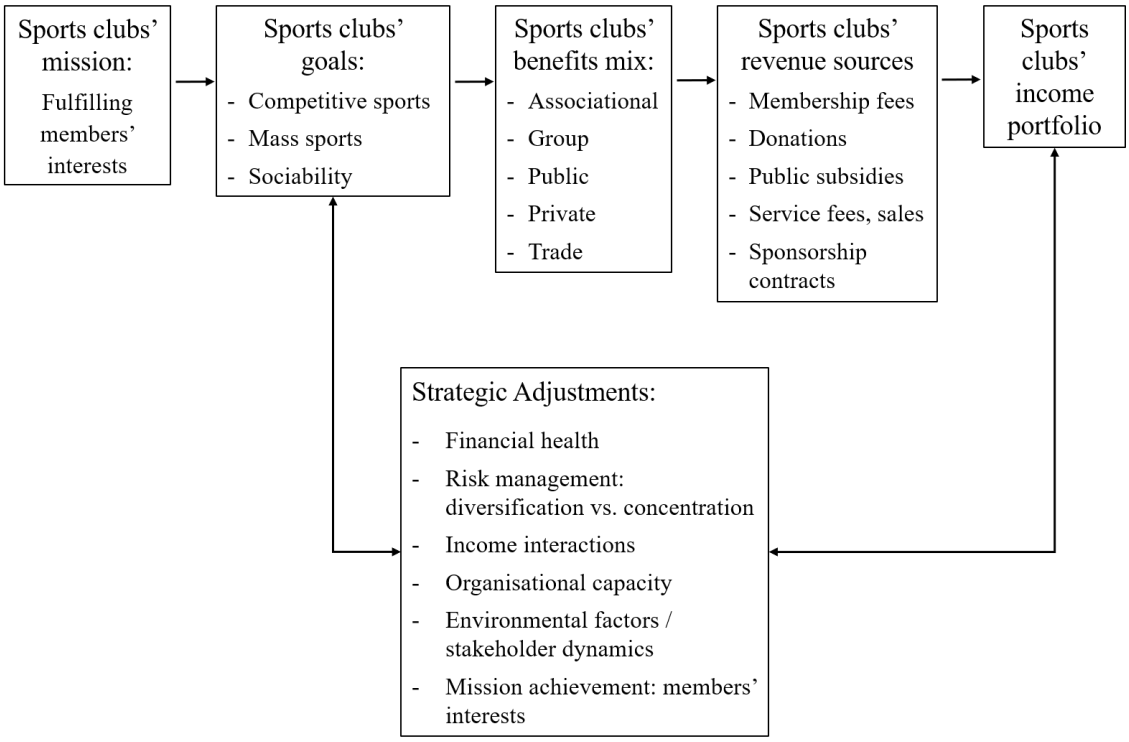

Figure 2.2 Framework for financing nonprofit sports clubs (own figure, based on Bowman, 2017; Horch, 1994; Nagel, 2008; Young, 2017).

The studies of the underlying dissertation can be placed in this framework, with three studies investigating core income sources and two studies investigating financial problems.

2.2.3 Contribution of the dissertation's studies

According to benefits theory, NPOs should pursue revenue sources which are associated with the benefits provided. For nonprofit sports clubs, which mainly offer associational benefits to their members but also further public, group, private, and trade benefits, a wide variety of income sources should be available. In practice, nonprofit sports clubs generate revenue from many different income sources, although the share of public subsidies, donations, sponsorship income, and further commercial income varies among clubs, while all clubs receive membership fees. Following benefits theory, this variation in the income portfolio can be attributed to the different mix of services and benefits provided by clubs. Thus, it seems that sports clubs intuitively follow the process suggested by benefits theory by generating revenue from a variety of sources. Nevertheless, there is still potential for clubs to optimise their revenue portfolio. For example, not all clubs receive public subsidies, even though they would be entitled to a corresponding subsidy due to funding regulations for sports clubs in Germany (cf. Chapter 5). Moreover, nonprofit sports clubs need to satisfy their members' interests, which includes offering sports opportunities for adequate membership fees while keeping in mind the overall financial situation of the club (Pajas & Vilain, 2004).

The studies of the underlying dissertation step in at this point and examine the core income sources of nonprofit sports clubs, financial problems, and factors related to them. Based on theoretical considerations and empirical findings, suggestions on how these sources can be optimised are provided. Thereby, the five studies of the dissertation contribute to the overall framework for financing nonprofit sports clubs. A summary of the contributions of each study is presented below.

2.2.3.1 Study 1: Membership fees

The first study (Chapter 3) is entitled "Nonprofit pricing: Determinants of membership fee levels in nonprofit sports clubs in Germany". Membership fees in nonprofit sports clubs differ between clubs and also within clubs between different groups of members. However, pricing processes of membership fees in sports clubs have not been empirically investigated so far. Therefore, the purpose of this first study is to investigate relevant factors for pricing decisions of membership fee levels for three different groups of members (kids, youth, and adults). The study is based on the theory of club goods (Buchanan, 1965) and sports clubs' unique characteristics (Horch, 1994) and makes use of classical pricing approaches (Kotler, 1997) adapted to sports clubs. Based on four consecutive waves of the Sport Development Report (2009, 2011, 2013, 2015), a balanced panel data set of single-sport clubs is used for investigating pricing determinants for monthly membership fees (n=1,538). Three

ordinary least squares (OLS) regression models are applied and complemented by three seemingly unrelated regression (SUR) models for robustness checks.

The results show that costs related to coaches and sports facilities are relevant for the setting of membership fees, while sports equipment costs are not. Likewise, perceived competition was not considered for setting membership fees, while social aspects played a role in the pricing decisions of clubs. Additionally, emerging financial problems lead to increases in membership fees. The results confirm that despite the major importance of membership fees for clubs, further income sources are needed to cover all costs. Moreover, if membership fees need to be increased in tense financial situations, sports clubs can expect acceptance of members if the processes behind the necessity to increase are made transparent (Steinberg, 2007).

The study is the first to investigate pricing mechanisms in nonprofit sports clubs empirically and theoretically sound, thereby providing an important contribution to the field of nonprofit finance and sports club management. Additionally, practical implications for sports clubs are derived, and potential members are informed on how clubs set membership fees.

2.2.3.2 Study 2: Donations

The second study (Chapter 4) is entitled "How to raise voluntary giving for nonprofit sports clubs: An analysis of factors influencing donations". While several studies have investigated motives for donations from an individual point of view, the reception of donations from an organisational perspective has largely been neglected. Therefore, the purpose of this second study is to investigate factors related to the reception and amount of donations for nonprofit sports clubs. The study is based on economic theories of NPOs, namely the public goods theory (Weisbrod, 1986) and the contract failure theory (Hansmann, 1980). Both theories explain the existence of NPOs in a three-sector economy and serve as justification for nonprofit sports clubs receiving donations. An unbalanced panel data set from the third (2009) and fourth (2011) wave of the Sport Development Report is used for the analyses (n=8,680). Six regression models are estimated to investigate determinants of whether clubs received donations (logistic regression), of the amount of donations (log-linear regression), and of the share of donations (linear regression). The independent variables reflect elite sport offers, social benefits for different population groups, social values of the club, administrative expenses for personnel, and a commercial orientation of the club.

The results show that particularly the provision of elite sport and the promotion of young talents positively influence the reception of donations. Moreover, sports clubs caring for social aspects, companionship, and conviviality as core club values can generate higher revenue from donations. The same applies to clubs employing

paid staff. On the contrary, a commercial orientation was found to have a negative effect. Interestingly, a certain level of professionalisation, meaning employing paid staff, raises the probability of receiving money from donors. Moreover, apart from focusing on sports-related offerings, concentrating on social values can help clubs expand donations. On the other hand, clubs should avoid becoming increasingly commercialised since potential donors seem to fear that clubs might lose their focus on the main club mission.

Overall, the study contributes to the nonprofit finance literature by investigating for the first time determinants of the core income source donations for nonprofits sports clubs. Moreover, it is shown that general theories of nonprofit economics are valuable in serving as a theoretical framework for voluntary membership associations. Practically, the study helps nonprofits sports clubs to understand under which circumstances the seeking for donations is particularly promising.

2.2.3.3 Study 3: Subsidies

The third study (Chapter 5) is entitled "Public subsidies for sports clubs in Germany: funding regulations vs. empirical evidence". Public funding of NPOs is widely discussed in the literature, both from theoretical viewpoints and empirically, especially focusing on interactions with other income sources. However, research in the context of nonprofit sports clubs focusing on factors related to receiving public subsidies is scarce, and funding principles are diverse. In Germany, nonprofit sports clubs can receive direct public subsidies from federal states, municipalities, and sports organisations. Thus, this third study aims to examine whether and to what extent sports clubs that fulfil proposed funding conditions are financially rewarded from different governmental levels. The study takes an in-depth view of sport policy in Germany and the variety of funding principles on different governmental levels. A three-wave balanced panel dataset from the Sport Development Report (n=1,275) is used for the empirical analyses. Three Heckman selection models are estimated to identify how the fulfilment of various funding principles affects the reception and amount of subsidies from sports organisations, federal states, and communities.

The results show that public funding is differently awarded to clubs fulfilling the funding conditions. While some policy regulations are reflected in the reception of subsidies, others are not. Particularly, competitive and elite sport are supported with public money, i.e., the traditional competence of nonprofit sports clubs with regard to the development of young athletes, competitive sport, and squad athletes is on the agenda for public support. On the other hand, offering health sports programmes does not lead to receiving subsidies, although governmental policies propose support of health-enhancing sports offers.

The study is the first to take a deep look at consequences for nonprofit sports clubs when sports policy regulations in the form of funding conditions are fulfilled, i.e., whether this fulfilment leads to proposed public financial support. By testing this relationship empirically, the study contributes to the field of financing nonprofit sports clubs and sports policy. From a practical point of view, the study offers valuable insights for sports clubs since knowing the factors associated with receiving public subsidies is essential for the clubs' financial management. Additionally, the results indicate dysfunction in the relationship between public institutions and nonprofit sports clubs in certain areas.

2.2.3.4 Study 4: Perceived financial problems and objective financial measures

The fourth study (Chapter 6) is entitled "The perceived financial situation of nonprofit sports clubs explained by objective financial measures". The financial situation of nonprofit sports clubs has been investigated in different sports club studies around the world, using subjective financial measures, such as Likert scales. However, it remains unclear what this subjectively reported rating reflects and whether the perception of the financial situation can be reflected with objective financial measures. Therefore, the purpose of this fourth study is to examine the link between club officials' perceptions of financial problems and different objective financial measures. The financial measures reflect classical ratios from general finance (e.g., operating margin, interest coverage, revenue diversification) and sport-specific measures (e.g., expenses for sports operation relative to total expenses) adapted from an earlier study on sports clubs financial vulnerability (Cordery et al., 2013). The study uses a panel data set of four consecutive waves (2009, 2011, 2013, 2015) of the Sport Development Report (n=2,859). The empirical analyses include two regression models: an ordered logistic regression and a multinomial logit model.

The results show that operating margin, revenue diversity, and the share of sports facility expenses relative to total expenses are significantly related to subjectively perceived financial problems. Over time, it was shown that a decrease in perceived financial problems is less likely when administrative expenses relative to total revenues increase. On the other hand, increasing revenue diversification is positively associated with an improved financial situation over time.

The study contributes to the literature on nonprofit finance in a specific sector by providing a comprehensive overview of different subjective and objective financial measures of nonprofit sports clubs, discussing their theoretical foundation, and offering a systematic categorisation of financial measures. Empirically, these measures are tested towards a subjective measure. Since only a few objective financial measures reflected the subjectively perceived problem level, it is argued that subjec-

tive measurement scales are useful to a certain extent and should be supplemented by objective financial measures. From a practical point of view, objective financial measures are useful for better understanding the financial situation of sports clubs and designing more targeted support programmes.

2.2.3.5 Study 5: Perceived problems in times of crisis

The fifth study (Chapter 7) is entitled "Perceived threats through COVID-19 and the role of organizational capacity: Findings from non-profit sports clubs". The worldwide COVID-19 pandemic largely affected various parts of everyday lives, including nonprofit sports clubs. Sports offers were put to a halt for various times in lockdowns, i.e., club operations stopped. Consequently, membership numbers decreased all over Germany, meaning that clubs relying heavily on membership fees were likely to lose large parts of their income, which would increase financial problems. Therefore, the aim of the fifth study is to investigate how clubs perceived threats caused by the pandemic in three areas: the financial situation (which is most relevant to the topic of the underlying dissertation), as well as recruiting and retaining volunteers and members. The study is framed by the conceptual model of organisational capacity and uses data from the 8th wave (2020) of the Sport Development Report (n=4,295). The empirical analyses are conducted through three fractional regression models to examine which organisational capacities are related to potential threats caused by COVID-19.

The results show that perceived financial threats are smaller compared to the other two areas. Moreover, almost half of the clubs did not perceive any financial threats due to the pandemic. However, perceived financial problems were positively correlated with perceived problems in the areas of members and volunteers, indicating that larger problems in terms of members are related to larger financial problems since fewer members lead to lower membership fees. The results of the regression model for perceived financial threats indicated that clubs employing paid staff and having own facilities perceived larger threats. Moreover, indicators of the financial capacity dimension were significantly related to perceived financial problems: breaking even in the year before the pandemic decreased the likelihood of perceiving financial problems. The same was found for assets, which seem to work as a security buffer in times of crisis.

This study was the first to empirically investigate the impact of the COVID-19 pandemic on nonprofit sports clubs using large-scale data. Thereby, the study contributes to the literature on the organisational capacity of nonprofit sports clubs and its role in keeping sustainable in times of crisis. The study sheds light on how sports clubs perceive financial challenges in uncertain times and which factors help or hinder them in fulfilling their mission.

2.2.3.6 Synthesis

The five studies of the underlying dissertation contribute to the understanding of how nonprofit sports clubs are financed and which factors are related to the core income sources. Moreover, financial problems are investigated, which, according to benefits theory, need to be monitored constantly to potentially adapt the provided services and related income sources. Thus, the studies of this dissertation on revenue sources and financial health and their underlying theoretical foundations (theory of club goods, public goods theory, contract failure theory, portfolio theory, organisational capacity) can be summarised under the framework of benefits theory adapted to the sports club context, thereby leading to a guiding framework for financing nonprofit sports clubs. Studies one, two, and three reflect core income sources within the financing framework and answer RQ 1. Studies four and five reflect the area of financial health and answer RQ 2.

2.3 References

Anheier, H. K. (2014). *Nonprofit Organizations. Theory, management, policy* (2nd ed.). Routledge.

Aschari-Lincoln, J., & Jäger, U. P. (2016). Analysis of Determinants of Revenue Sources for International NGOs: Influence of Beneficiaries and Organizational Characteristics. *Nonprofit and Voluntary Sector Quarterly, 45*(3), 612-629. https://doi.org/10.1177/0899764015595721

Ben-Ner, A., & Van Hoomissen, T. (1991). Nonprofit organizations in the mixed economy. *Annals of Public and Cooperative Economics, 62*(4), 519-550. https://doi.org/10.1111/j.1467-8292.1991.tb01366.x

Bowman, H. W. (2017). Toward a Theory of Membership Association Finance. *Nonprofit and Voluntary Sector Quarterly, 46*(4), 772-793. https://doi.org/10.1177/0899764016685860

Breuer, C. (2010). Der Beitrag des Sports zur Kommunal- und Regionalentwicklung. In W. Tokarski & K. Petry (Eds.), *Handbuch Sportpolitik* (pp. 128-140). Hofmann.

Breuer, C., & Feiler, S. (2022). *Sports Clubs in Germany: Results from the 8th wave of the Sport Development Report. Sport Development Report for Germany 2020-2022 - Part 1.* Bundesinstitut für Sportwissenschaft.

Breuer, C., Feiler, S., & Rossi, L. (2020). *Sports clubs in Germany: More than just exercise. Key results of the 7th wave of the Sport Development Report (2017/2018) and selected developments over the last 15 years.* Bundesinstitut für Sportwissenschaft.

Buchanan, J. M. (1965). An economic theory of clubs. *Economica, 32*(125), 1-14.

Cordery, C. J., Sim, D., & Baskerville, R. F. (2013). Three models, one goal: Assessing financial vulnerability in New Zealand amateur sports clubs. *Sport Management Review, 16*(2), 186-199. https://doi.org/10.1016/j.smr.2012.08.002

Cornes, R., & Sandler, T. (1986). *The theory of externalities, public goods, and club goods.* Cambridge University Press.

Fischer, D., & Tschurer, G. M. (2011). *Kostenrechnung und Beitragsgestaltung im Sportverein.* Landessportbund Nordrhein-Westfalen e.V.

Fischer, R. L., Wilsker, A., & Young, D. R. (2011). Exploring the revenue mix of nonprofit organizations: does it relate to publicness? *Nonprofit and Voluntary Sector Quarterly, 40*(4), 662-681. https://doi.org/10.1177/0899764010363921

Gratton, C., & Taylor, P. (2000). *Economics of sport and recreation.* E & FN Spon.

Hansmann, H. (1980). The role of nonprofit enterprise. *The Yale Law Journal, 89*(5), 835-902.

Hansmann, H. (1987). Economic theories of nonprofit organization. In W. W. Powell (Ed.), *The nonprofit sector: a research handbook* (pp. 27-42). Yale University Press.

Heinemann, K. (1995). *Einführung in die Ökonomie des Sports.* Hofmann.

Horch, H.-D. (1992). *Geld, Macht und Engagement in freiwilligen Vereinigungen. Grundlage einer Wirtschaftssoziologie von Non-Profit-Organisationen.* Duncker & Humblot.

Horch, H.-D. (1994). On the socio-economics of voluntary associations. *Voluntas: International Journal of Voluntary and Nonprofit Organizations, 5*(2), 219-230.

James, E. (1990). Economic theories of the nonprofit sector: A comparative perspective. In H. K. Anheier & W. Seibel (Eds.), *The third sector: comparative studies of nonprofit organizations* (pp. 21-29). de Gruyter.

Kim, M., Pandey, S., & Pandey, S. K. (2018). Why Do Nonprofit Performing Arts Organizations Offer Free Public Access? *Public Administration Review, 78*(1), 139-150. https://doi.org/10.1111/puar.12769

Kingma, B. R. (1997). Public good theories of the non-profit sector: Weisbrod revisited. *Voluntas: International Journal of Voluntary and Nonprofit Organizations, 8*(2), 135-148. http://dx.doi.org/10.1007/BF02354191

Kotler, P. (1997). *Marketing Management. Analysis, Planning, Implementation, and Control* (9th ed.). Prentice Hall.

Liu, Q., & Kim, M. (2022). Benefit-Based Revenue Streams and Financial Health: The Case of Arts and Cultural Nonprofits. *Nonprofit and Voluntary Sector Quarterly, 51*(4), 805-831. https://doi.org/10.1177/08997640211012090

Nagel, S. (2008). Goals of sports clubs. *European Journal for Sport and Society, 5*(2), 121-141. https://doi.org/10.1080/16138171.2008.11687815

Nagel, S., Elmose-Østerlund, K., Ibsen, B., & Scheerder, J. (2020). *Functions of Sports Clubs in European Societies - A Cross-National Comparative Study.* Springer.

Nagel, S., & Lamprecht, M. (2022). Sport im Verein. In M. Lamprecht & S. Nagel (Eds.), *Sportsoziologie. Einführung* (pp. 143-156). Nomos Verlagsgesellschaft.

Olson, M. (1965). *The Logic of Collective Action.* Harvard University Press.

Park, Y. J., & Peng, S. (2020). Advancing Public Health Through Tax-Exempt Hospitals: Nonprofits' Revenue Streams and Provision of Collective Goods. *Nonprofit and Voluntary Sector Quarterly, 49*(2), 357-379. https://doi.org/10.1177/0899764019872007

Preston, A. E. (1988). The nonprofit firm: a potential solution to inherent market failures. *Economic Inquiry, 26*(3), 493-506.

Rittner, V., & Breuer, C. (2002). Zur Legitimation staatlicher Sportfinanzierung unter veränderten Rahmenbedingungen. In H.-D. Horch, J. Heydel, & A. Sierau (Eds.), *Finanzierung des Sports* (pp. 267-282). Meyer & Meyer.

Rooney, P. (2007). Individual giving. In D. R. Young (Ed.), *Financing nonprofits. Putting theory into practice* (pp. 23-44). AltaMira Press.

Salamon, L. M. (1987). Partners in Public Service: The Scope and Theory of Government-Nonprofit Relations. In W. W. Powell (Ed.), *The Nonprofit Sector: A Research Handbook* (pp. 99-117). Yale University Press.

Samuelson, P. A. (1954). The Pure Theory of Public Expenditure. *The Review of Economics and Statistics, 36*(4), 387-389. https://doi.org/10.2307/1925895

Sandler, T., & Tschirhart, J. (1997). Club theory: Thirty years later. *Public Choice, 93*(3-4), 335-355. https://doi.org/10.1023/a:1017952723093

Schubert, P., Tahmaz, B., & Krimmer, H. (2023). *Erste Befunde des ZiviZ-Survey 2023 Zivilgesellschaft in Krisenzeiten: Politisch aktiv mit geschwächten Fundamenten.* ZiviZ im Stifterverband.

Steinberg, R. (2006). Economic theories of nonprofit organizations. In W. W. Powell & R. Steinberg (Eds.), *The non-profit sector. A research handbook* (2nd ed., pp. 117-139). Yale University Press.

Steinberg, R. (2007). Membership income. In D. R. Young (Ed.), *Financing nonprofits. Putting theory into practice* (pp. 121-155). AltaMira Press.

Stühlinger, S., & Hersberger-Langloh, S. E. (2021). Multitasking NPOs: An Analysis of the Relationship Between Funding Intentions and Nonprofit Capacities. *Voluntas: International Journal of Voluntary and Nonprofit Organizations, 32*(5), 1042-1053. https://doi.org/10.1007/s11266-021-00364-4

Ulseth, A.-L. B. (2004). Social integration in modern sport: Commercial fitness centres and voluntary sport clubs. *European Sport Management Quarterly, 4*(2), 95-115.

Vilain, M. (2006). *Finanzierungslehre für Nonprofit-Organisationen. Zwischen Auftrag und ökonomischer Notwendigkeit.* VS Verlag für Sozialwissenschaften.

Weisbrod, B. A. (1975). Toward a theory of the voluntary nonprofit sector in a three-sector economy. In E. Phelps (Ed.), *Altruism, Morality, and Economic Theory* (pp. 171–195). Russell Sage Foundation.

Weisbrod, B. A. (1988). *The Nonprofit Economy.* Harvard University Press.

Weisbrod, B. A. (1998). Modeling the nonprofit organization as a multiproduct firm: A framework of choice. In B. A. Weisbrod (Ed.), *To profit or not to profit. The commercial transformation of the nonprofit sector* (pp. 47-64). Cambridge University Press.

Weisbrod, B. A., & Dominguez, N. D. (1986). Demand for collective goods in private nonprofit markets: Can fundraising expenditures help overcome free-rider behavior? *Journal of Public Economics, 30*(1), 83-96. https://doi.org/10.1016/0047-2727(86)90078-2

Wicker, P. (2011). Willingness-to-Pay in Non-Profit Sports Clubs. *International Journal of Sport Finance, 6*(2), 155-169.

Wicker, P., Breuer, C., & Hennigs, B. (2012). Understanding the interactions among revenue categories using elasticity measures - Evidence from a longitudinal sample of non-profit sport clubs in Germany. *Sport Management Review, 15*(3), 318-329. https://doi.org/10.1016/j.smr.2011.12.004

Wilsker, A. L., & Young, D. R. (2010). How Does Program Composition Affect the Revenues of Nonprofit Organizations?: Investigating a Benefits Theory of Nonprofit Finance. *Public Finance Review, 38*(2), 193-216. https://doi.org/10.1177/1091142110369238

Young, D. R. (2007). Toward a normative theory of nonprofit finance. In D. R. Young (Ed.), *Financing nonprofits. Putting theory into practice* (pp. 339-372). AltaMira Press.

Young, D. R. (2017). *Financing nonprofits and other social enterprises. A benefits approach.* Edward Elgar Publishing Limited.

Young, D. R., Wilsker, A. L., & Grinsfelder, M. C. (2010). Understanding the determinants of nonprofit income portfolios. *Voluntary Sector Review, 1*(2), 161-173. https://doi.org/10.1332/204080510x511229

3 Nonprofit pricing: Determinants of membership fee levels in nonprofit sports clubs in Germany

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Abstract

In Germany, membership fees in nonprofit sports clubs are comparatively lower than fees or prices for other leisure time activities, such as sports offers from fitness clubs, music schools, or theatre visits. However, it is unclear on which basis sports clubs set their membership fees for different groups and why fees differ between clubs. Based on panel data of nonprofit sports clubs in Germany (n=1,538), this study investigates which factors influence the setting of membership fee levels using classical pricing-approaches adapted to the nonprofit context. The results show that costs related to coaches and instructors as well as facility costs significantly determine the level of membership fees, whereas perceived competition does not. Moreover, club goals such as offering competitive sports or sports for socially vulnerable groups have an impact on the level of membership fees. Furthermore, clubs with higher revenue diversification display lower levels of membership fees two years later.

Keywords: pricing; club goods; nonprofit member organization; nonprofit finance

3.1 Introduction

Nonprofit sports clubs (NSCs) are membership organizations, meaning that they are largely financed through revenue from membership fees. Among a variety of income sources, membership fees are their most important source of revenue (Lamprecht, Bürgi, Gebert, & Stamm, 2017; Nagel, 2006). Compared to nonprofit organizations in other areas like arts or health, nonprofit sports organizations rely more heavily on fees from their members (Steinberg, 2007). In Switzerland, for example, membership fees make up almost one-third of all revenue NSCs generate (Lamprecht et al., 2017), and in Germany, all NSCs receive fees from their members (Breuer & Feiler, 2019). In their role as nonprofit sports providers, clubs are aiming to offer affordable sports programs to a wide range of different population groups. Thereby, clubs build the basis of sports systems in many European countries and help to promote "sport for all," which is a policy goal throughout Europe (European Commission, 1999). In Germany, which is the research context of this study, almost 29% of the population are members of NSCs. Within the age group of the 7- to 14-year-olds, more than 80% of boys and more than 60% of girls are members of sports clubs (DOSB, 2018).

This high organizational degree of sport is possible since the offers of NSCs are comparably cheap. Other leisure time activities, such as taking part in programs of commercial sport providers (CSPs), music schools, or art schools as well as visits to theatres or cinemas are on average far more expensive than joining a sports club (Breuer, Wicker, & Swierzy, 2016; Fischer & Tschurer, 2011). For example, half of the German sports clubs charge a maximum monthly membership fee of € 3 for kids, € 4 for youth, and € 8 for adults (Breuer & Feiler, 2019), whereas the average membership fee for commercial fitness clubs amounts to € 44 per month (DSSV, 2018). This price difference can be ascribed to the nonprofit character of clubs. Almost all NSCs in Germany (97.6%) are registered associations under German law (Breuer & Feiler, 2015), meaning that their contribution to public welfare is officially confirmed by financial offices. This legal form makes clubs eligible to receive public support from different governmental levels (cf., Feiler, Wicker, & Breuer, 2018). Public sport promotion in Germany is justified by the contribution of NSCs to the welfare of society (Heinemann, 2005). Benefits include direct public subsidies, the usage of public sport infrastructure for free or for a low fee, and tax benefits (Deutscher Bundestag, 2019).

However, the legal form of a nonprofit organization prohibits clubs from distributing profits among their members (Hansmann, 1980). Therefore, clubs do not, in contrast to CSPs, pursue monetary profit targets but rather are guided by needs-oriented club goals. These goals often include, apart from offering sports programs, intangible benefits for members like companionship and conviviality (Nagel, 2006). Thereby, clubs have, economically, no incentive to charge higher levels of mem-

bership fees than necessary to run key club operations. Likewise, the interests of members to join a sports club are two-fold (Klenk, Schlesinger, & Nagel, 2017): First, membership is goal-oriented, meaning that individuals are interested in taking part in sports programs and maybe even participating in official competitions. The latter is only possible through a club membership, which is a further differentiating factor of sports clubs compared to other sports providers (Gratton & Taylor, 2000). Second, club membership can be value-oriented, meaning that members appreciate the social-integrating atmosphere of clubs (Klenk et al., 2017), which is less likely to be found in commercial fitness centres (Ulseth, 2004). Therefore, joining a club by paying a given membership fee is related to different member interests.

However, it is unclear how clubs actually decide the level of membership fees, which would be interesting to know as clubs are a socially relevant phenomenon (Rittner & Breuer, 2004). As membership fees differ between sports clubs (Emrich, Pitsch, & Papathanassiou, 2001), it is likely that differences in the provision of sports offers, e.g., the number and quality of coaches, is relevant in this regard. Therefore, from time to time, clubs should examine whether their membership fees are still adequate (Kotler, 2000), i.e., sufficient to cover costs related to the sports offers (Wicker, 2011).

Despite the importance of membership fees for NSCs and their members, it has so far not empirically been studied on which basis clubs set their membership fees. Therefore, the purpose of this study is to shed light on pricing processes in NSCs by investigating which factors are relevant to the level of membership fees sports clubs charge so that differences in membership fees between different clubs can be explained. The study contributes to the body of research on the finances of NSCs by investigating determinants of the clubs' most important income source.

3.2 State of research

Membership fees are the most important revenue source for German NSCs. While sports club surveys in different countries cover membership fees and display descriptive results (e.g., Lamprecht et al., 2017; SRA, 2018), empirical research on membership fees for NSCs is mainly related to the willingness-to-pay (WTP) of club members (e.g., Swierzy, Wicker, & Breuer, 2018b). Studies on determinants of membership fees are, with few exemptions (e.g., Huth & Kurscheidt, 2019), scarce. Instead, studies have investigated price determinants of different sport products (e.g., Pawlowski, 2011). Thus, this chapter gives a short insight in the state of research on a) membership fee levels of NSCs in different countries and b) empirical research related to pricing in sports.

Membership fees differ within clubs between different groups. Usually, kids and adolescents pay lower membership fees (Nagel, 2006), and some clubs offer reduced

fees for the elderly, families, and socially disadvantaged groups (Breuer et al., 2016; Lamprecht et al., 2017). For example, sports clubs in the UK charge a yearly average membership fee of £ 108 (approx. € 10.45 per month) for participating adult members and £ 68 (approx. € 6.60 per month) for junior members (SRA, 2018). In Switzerland, the latest club survey revealed yearly membership fees of CHF 70 (approx. € 5.10 per month) for children, CHF 80 (approx. € 5.80 per month) for youth, and CHF 117.50 (approx. € 9.80 per month) for active adult members (Lamprecht et al., 2017). In Germany, membership fees have slightly increased over the past two years. Nevertheless, the level of membership fees for the different groups is still rather low: In 2017, half of the German NSCs charged a maximum monthly membership fee of € 3.00 for children, € 4.00 for youth, and € 8.00 for adults (Breuer & Feiler, 2019). Interpersonal price discrimination, i.e., charging different prices for the same product or service based on characteristics like age or income, is typical in nonprofit organizations due to their social orientation (Anheier, 2014; Young, Jung, & Aranson, 2010). Since clubs themselves decide the amount of membership fees they charge, membership fees are considered autonomous income (Emrich et al., 2001).

Existing studies dealing with membership fees in NSCs mainly focus on the WTP of members but not on determinants of membership fee levels. Wicker (2011) finds that the average WTP of adult sports clubs members across 21 sports for an annual membership fee is higher (€ 265) than the actual membership fee they paid (€ 148), showing that the paid membership fees are lower than the utility members received from being a member and taking part in the sports programs. Moreover, the study showed that a higher current membership fee was positively associated with WTP, a result that was confirmed by Kiefer (2015) in her study on the WTP and willingness-to-work for quality improvements in riding clubs. Swierzy et al. (2018b) investigated the WTP for memberships in NSCs, applying a multi-level framework taking into account both individual and organizational determinants. They find, similar to Wicker (2011), that average WTP is about 30% higher than the currently paid membership fee. Moreover, in cases of perceived financial problems of the club, WTP of members was higher, suggesting that members are open to supporting the club in tense financial situations.

Determinants of membership fees and green fees in golf clubs have been investigated by Huth and Kurscheidt (2019). The study makes use of hedonic pricing, which was introduced by Rosen (1974) and has frequently been applied to investigate determinants of prices of products and services that consist of a bundle of differently-valued characteristics, particularly in the field of real estate, i.e., housing prices (e.g., Goodman & Thibodeau, 2003) but also in the sports context. Examples are studies calculating attribute values of ski lift passes (e.g., Falk, 2008; Pawlowski, 2011), investigating prices of riding lessons (Hess et al., 2014), and determining

the value of environmental quality around golf courses (Limehouse, Melvin, & McCormick, 2010). The golf study (Huth & Kurscheidt, 2019) shows that differences in membership fees are mainly explained by differences in product attributes of golf courses. Average annual membership fees amount to € 1,252, which largely exceeds the average membership fees in other sports (Wicker, 2011). Thus, the results are hardly comparable to other sports. Also, the other listed studies in the sports context investigating price determinants by using hedonic pricing differ from investigating membership fees of NSCs because most of these studies are related to private goods (e.g., riding lessons). In contrast, membership fees of NSCs have a different character than a regular price, like for example a price for a riding lesson, since sports club memberships are club goods (Buchanan, 1965). Consequently, applying hedonic pricing to investigate membership fee levels does not seem sufficient, as factors other than product attributes are also likely to be relevant for setting membership fees. Instead, classical pricing approaches, adapted to the nonprofit context, are used as theoretical foundation in this study.

3.3 Theoretical framework

3.3.1 Club goods and nonprofit characteristics

Through paying a membership fee to a sports club, people become members of the respective club and consequently have access to mostly all programs and services the club provides (Heinemann, 1995), i.e., they have a general usage right of the clubs' offers (Horch, 1992). Moreover, members of sports clubs pool their resources, such as membership fees and voluntary work, to share production costs and to benefit from the shared action, with these benefits exceeding benefits from individual action (Cornes & Sandler, 1986). Thus, sports club memberships are club goods (Buchanan, 1965), with non-members being excluded from the benefits the club provides. However, member utility may only be positive until a certain optimal club size, where marginal benefits of members are equal to marginal costs (Buchanan, 1965). This means that, with an increasing number of members who derive utility from the club good, marginal utility of the individual member decreases at a certain point due to congestion and crowding (Cornes & Sandler, 1986). Therefore, pricing processes of membership fees need to take into account that fees that are set too low might lead to an overuse of the club's offers, i.e., crowding, whereas fees that are set too high will lead to an underutilization of the club's offers and thereby to higher costs per member. Thus, membership fees should be set according to the members' tastes for crowding (Anderson, Shughart, & Tollison, 2004). Consequently, the character of membership fees differs from classical prices for private goods, which needs to be considered when investigating determinants of membership fee levels.

Moreover, investigating membership fees of NSCs calls for taking into account further aspects of the nonprofit context. These aspects are related to the constitutive and economic characteristics of NSCs. First, NSCs have democratic structures, are mainly run by volunteers, and are oriented on the members' interests (Horch, 1994). This is relevant in the context of membership fees because all decisions, also about the level of membership fees, are taken by the members. Voluntary work as a non-monetary resource can help to provide affordable membership fees. Second, NSCs are bound to the non-distribution constraint (Hansmann, 1980), meaning that clubs are not allowed to distribute surpluses to their members but must reinvest them (Coates & Wicker, 2017). Thereby, clubs have no incentive in making profit but rather in reaching their organizational goals (Nagel, 2008), fulfilling their mission (Anheier, 2014; Young et al., 2010), and operating economically viable, meaning to maintain solvency (Steinberg, 2007) and cover most of the occurring costs, knowing that other income sources (e.g., donations, subsidies, sponsorship income) are necessary to secure and stabilize the overall financial situation (Kotler, 2000). Thus, the missing incentive to maximize revenues is relevant for deciding about membership fee levels since membership fees do not have the function to reach particularly high revenue but to finance the provided sports offers in accordance with the aim of minimizing economic entry barriers.

3.3.2 Pricing approaches

This study makes use of classical pricing policy approaches (cf., Kotler, 1997) adapted to the nonprofit context. Generally, pricing decisions are influenced by internal and external factors. The former are concerned with offers and related costs as well as organizational objectives; the latter deal with market demand and competition (Shank & Lyberger, 2015). Based on these assumptions and taking into account the nonprofit characteristics, it is expected that sports clubs take on pricing decisions, i.e., decide about the level of membership fees, based on costs, competition, members' demand, and nonprofit specificities.

Cost-oriented pricing is the first pricing approach. Costs are factors that are related to producing, promoting, and providing products and services (Shank & Lyberger, 2015). In order for organizations to survive, costs need to be covered by revenue, meaning that organizations are required to break even (Young et al., 2010). Nonprofit organizations may apply a slightly different pricing approach, namely striving only for partial cost-coverage, knowing that other revenue sources such as donations or subsidies need to cover the costs remaining (Kotler, 2000). This approach is also applicable to NSCs. To keep club operations running, costs related to the provided sports programs should be covered by membership fees (Fischer & Tschurer, 2011; Wicker, 2011), with the rest of the costs expected to be covered

by different income sources. Most of the costs occurring in NSCs are related to personnel, sports equipment, and infrastructure, i.e., sports facilities (Breuer & Feiler, 2019; Lamprecht et al., 2017). Thus, it is expected that costs related to the core sports offers (e.g., coaches, equipment, facilities) will have a positive effect on the level of membership fees.

The second pricing approach is competitor-oriented pricing. Generally speaking, competition is regarded as a critical factor in determining prices, which calls for examining the competitive environment of the organization. If offers of competitors are similar to the own offers, prices should be similar. If offers are inferior (superior), prices should be lower (higher) (Kotler, 2000). In the sports context, this means that prices and offers of competitors of sports organizations should be monitored before setting own prices (Shank & Lyberger, 2015). NSCs report to mainly face competition from other NSCs (Breuer & Feiler, 2019; Lamprecht et al., 2017). In addition, CSPs such as fitness studios, dancing schools, or tennis halls, can be seen as competitors of NSCs. In this regard, it is found that the density of programs from CSPs in the clubs' region has a negative effect on club sport participation (Hallmann, Feiler, & Breuer, 2015). However, there are large differences between the prices of CSPs and NSCs, as CSPs are usually more expensive (DSSV, 2018). Moreover, NSCs often differ from CSPs in terms of offered sports. In particular, most competitive sports and team sports such as hockey and handball are primarily provided by NSCs (Gratton & Taylor, 2000; Ulseth, 2004), which makes it hard to compare offers and prices. Nevertheless, the perceived problem due to competition from CSPs by German NSCs has significantly increased from 2005 to 2015 (Breuer & Feiler, 2017b). Therefore, competition from other sports clubs and CSPs might influence the setting of membership fees, as increasing competition could lead to lower levels of membership fees to attract members.

The third pricing approach is demand-oriented pricing, in the case of NSCs member-oriented pricing. Generally, "demand is the quantity of a sports product that consumers are willing to purchase at a given price" (Shank & Lyberger, 2015, p. 516). Given that NSCs are democratic associations (Heinemann, 1995), the membership fees are set yearly by the general member assembly. Hence, members are both consumers of the sports offers and at the same time producers, financiers, and decision-makers. Since NSCs are regarded as communities of solidarity (Horch, 1994), members decide the level of membership fees based on what they are willing or able to pay. Due to the solidarity thinking, different groups of members pay different membership fees. For example, adult members pay higher fees than kids, thereby helping finance the clubs' engagement in youth work (Nagel, 2006). Thus, the setting of membership fees is oriented on the members' (i.e., consumers') interests, which are reflected in the main club goals. Individuals join sports clubs to derive mutual benefit from sharing common interests with other members (Cornes

& Sandler, 1986). These interests, and thereby the club goals, can, for example, be to provide sports to socially vulnerable groups for a small amount of money. On the other hand, members might be interested in participating in competitive sport, which is likely to be more expensive (Wicker, 2011), or rather to enjoy the sociability of NSCs (cf., Nagel, 2008). Therefore, different club goals are expected to influence the level of membership fees.

However, what might be considered related to member-oriented pricing are principal-agent-relationships in NSCs. In this context, information asymmetries could arise between members as principals and the clubs' boards as agents (Steinberg, 2010), which might lead to different ideas about pricing. Club boards are responsible for club management and the provision of sports offers to the members, relying on the available financial and human resources (mainly volunteers). If, for example, the levels of membership fees members are willing to pay are too low to keep a stable financial situation or the club needs additional income to renovate a sport facility, the club board needs to inform the members about this situation and suggest charging higher membership fees. These financially necessary fees might differ from the original ideas of members regarding the level of fees.

However, information asymmetries are usually rather small in NSCs due to the role identity of members being consumer, producers, decision-makers, and financiers at the same time (Horch, 1994). The club board is elected by members from the group of club members in the general assembly. Afterwards, club members have the yearly opportunity to control the club board by taking part and voting in the general assembly. In this regular assembly, the club board has to inform members about the situation of the club and potential pressing issues, such as financial problems. Afterwards, club members relieve the club board if they approve the club boards' report. Therefore, principal-agent-problems are rather unlikely in NSCs. Consequently, specificities of NSCs need to be considered when investigating pricing processes of membership fee levels, which is further addressed in the following paragraphs.

Fourth, and in addition to the three established pricing approaches, pricing decisions of NSCs need to consider the specifics of the nonprofit context. NSCs aim to provide sports offers to their members for a reasonable amount of money (Breuer & Feiler, 2019; Nagel, 2008) while covering costs to avoid financial distress (Shank & Lyberger, 2015; Young et al., 2010). In this regard, three aspects need to be considered. First, a key characteristic of NSCs is voluntary work (Horch, 1992), which is a precondition for affordable club offers (Heinemann, 1995). Voluntary work can, to a certain extent, substitute financial resources (Coates, Wicker, Feiler, & Breuer, 2014) to achieve club goals (Coates & Wicker, 2017). Related to this finding, a recent study found that parents of underage children who are members of clubs are more likely to volunteer if the club perceives financial problems (Swierzy, Wicker, &

Breuer, 2018a). Consequently, voluntary work can be expected to play a role when setting membership fees because large shares of volunteers can substitute financial resources, i.e., save costs, and clubs can consequently set membership fees at lower levels.

The second aspect that needs to be considered when setting membership fees is the availability of further revenue. Usually, NSCs generate income from a variety of income sources, such as membership and admission fees, subsidies, donations, and sponsorship income (Wicker, Breuer, & Hennigs, 2012). Within this revenue portfolio, subsidies from different governmental levels play an important role in the financing of NSCs, as clubs are eligible to receive public support for different areas, e.g., sports facilities and equipment (Feiler et al., 2018). Subsidies from the municipality are among the four most important revenue sources for German NSCs (Breuer & Feiler, 2019). Without public subsidies, more than half of NSCs would not break even (Breuer & Wicker, 2009). Moreover, financial support from sponsors can help clubs to reduce costs for sports equipment if, e.g., jerseys are paid for by sponsors. In Germany, 12.4% of clubs receive sponsorship income for sports equipment (Breuer & Feiler, 2019). Thus, revenue diversification is expected to have an impact on the level of membership fees, because the reliance on various revenue streams helps to cover costs that are not covered by the fees (Kotler, 2000). Thereby, clubs with a high revenue diversification might set lower levels of membership fees.

Third, it is expected that clubs facing financial problems that threaten club operations in terms of offering sports to their members might feel the need to generate additional income. Since membership fees are a constant and secure income source and can, due to their autonomous character (Emrich et al., 2001), be controlled more easily by clubs than heteronymous revenue such as donations or subsidies (Wicker et al., 2012), club boards need to inform members in cases of financial distress to discuss the possibility of adapting the level of membership fees to compensate financial problems. In this regard, research findings show that members are willing to pay higher membership fees than they currently pay (Breuer et al., 2016; Wicker, 2011) and that WTP is higher if clubs perceive financial problems (Swierzy et al., 2018b).

3.4 Method

3.4.1 Data source

This study used primary data from an online sports club panel in Germany that started in 2005, with seven waves having been conducted every two years so far. In all seven waves, email addresses of the clubs were provided by the 16 state sport confederations, and the sports clubs received an invitation email containing a per-

sonalized link to the survey. Each data collection took part in autumn and lasted for about 12 weeks. By means of the personalized link, an interruption of the survey was possible, which allowed the clubs to search for information they did not have directly at hand, e.g., yearly revenues and expenses and monthly membership fees for different age groups. Moreover, more than one person, e.g., the club's chairperson and the treasurer, could fill in the survey by forwarding the personalized link.

3.4.2 Dataset

Based on data from four of the seven waves, namely the third (2009, n=19,345), the fourth (2011, n=21,998), the fifth (2013, n=20,846), and the sixth wave (2015, n=20,546), a balanced vertical panel dataset (i.e., data in the long format) is constructed, containing only single-sport clubs that had taken part in at least three consecutive waves. The decision to investigate only single-sport clubs was taken since no information on additional charges for certain sports or divisions was available for multisport clubs. Moreover, it was decided to use four waves instead of all seven waves since the number of clubs having taken part in all seven waves would not have been sufficient for the analysis. Furthermore, relevant questions for this study (e.g., club philosophy) were not asked in all waves. Additionally, only clubs that had given full information on membership fees and finances could be used for the analysis. This resulted in a vertical panel dataset of n=1,538 observations, with n=1,110 observations, i.e., 370 clubs, having taken part in three consecutive waves, and n=428 observations, i.e., 107 clubs, having taken part in four consecutive waves.

3.4.3 Measures and variables

The variables used for the analysis are displayed in Table 3.1. Clubs were asked to report their monthly membership fees for kids, adolescents, and adults. In the statistical models, the natural logarithm (*ln_mbfee_kids, ln_mbfees_youth*, and *ln_mbfees_adults*) is used for all three dependent variables instead of using absolute values for membership fees. Using the natural logarithm is a common procedure in financial research in studies investigating price determinants (e.g., Pawlowski, 2011) and has been applied in prior organizational studies (Carroll & Stater, 2009) to ensure that the distribution of the variable is closer to the normal distribution.

The lagged independent variables (denoted with $_{t\text{-}1}$) reflect the different pricing approaches, taking into account the specificities of NSCs. The first pricing approach, cost-oriented pricing, is reflected by annual costs per member in different areas, namely coaches and instructors (*cost_coaches_pc*$_{t\text{-}1}$), administrative staff (*cost_adminstaff_pc*$_{t\text{-}1}$), sports equipment (*cost_sportsequ_pc*$_{t\text{-}1}$), maintenance and service for own sports facilities (*cost_facilties_pc*$_{t\text{-}1}$), and rent as well as compensation for not club-owned facilities (*cost_rent_pc*$_{t\text{-}1}$). To further investigate the role

of infrastructure for setting membership fees, two additional variables were used, namely whether the club is in possession of own sports facilities (own_fac_{t-1}) and whether the clubs has to pay a usage-fee for public sports facilities ($fee\_publicfac_{t-1}$). Moreover, as it was assumed that expenses in various areas, i.e., complex cost structures, have an impact on the level of membership fees, a variable measuring expenditure diversification ($expend\_div_{t-1}$) is added to the models. Expenditure diversification was constructed based on the Herfindahl Index ($Herf$), which is a concentration measure. To obtain a measure of diversification, $Herf$ was subtracted from 1.

Pricing related to competition, i.e., the second pricing approach, is reflected by two variables. The first variable measures the felt pressure by clubs through competition from other NSCs ($probclub_{t-1}$), and the second variable covers competition from CSPs ($probcommercial_{t-1}$). Both variables reflecting competition are measured on a 5-point Likert scale (from 1 = no problem to 5 = a very big problem). For the analysis in this study, the two problem items were recoded to dummy variables, with categories 4 and 5 indicating a big or very big problem due to competition.

Demand-oriented pricing reflects the members' interests and thereby the club goals. This approach is operationalized by six variables from the club philosophy, which was measured on a 5-point Likert scale (from 1 = do not agree at all to 5 = totally agree). For the underlying study, the items used from the club philosophy were recoded to dummy variables, with categories 4 and 5 indicating agreement with the stated item. Whether members were interested in their club staying the way it is, i.e., a reflection of tradition, is covered by the variable $phil\_stay_{t-1}$. The aim to provide an inexpensive opportunity to practice sports and consequently strive for lower levels of membership fees is measured by the variable $phil\_inexpensive_{t-1}$. Additionally, it is tested whether the clubs' aim of offering people with a low income the possibility to practice sports ($phil\_lowinc_{t-1}$) is reflected in lower membership fees. Since NSCs are interested in providing a place not only to actively participate in sports but also to socialize and share common interests with other people, a further variable covered this social aspect ($phil\_nonsports_{t-1}$). Additionally, two key areas of NSCs, namely being engaged in youth sport ($phil\_youth_{t-1}$) and being engaged in the promotion of young talent ($phil\_talent_{t-1}$), are represented in the models as possible explanatory factors for the level of membership fees.

Lastly, three further variables are integrated into the models. These variables are closely related to the specifics of NSCs. The first variable reflects the share of volunteers among members ($share\_volunteers_{t-1}$), suggesting that higher shares of volunteers can substitute financial resources and thereby have an impact on membership fees. Second, a variable measuring the diversity of income sources (rev_div_{t-1}) is added to the models, as revenue diversification might decrease the need to set higher membership fees. Revenue diversification was constructed analogue to expenditure

diversification (1-Herf). Lastly, perceived problems due to the financial situation of the clubs is represented by the variable $probfinance_{t-1}$, suggesting that increasing financial problems will lead to higher membership fee levels to compensate for lacking financial resources.

It is additionally controlled for club size and its squared term to see whether membership fees are related to any optimal club size (Buchanan, 1965). Moreover, community size, the clubs' foundation year, the survey year, and the 30 most relevant sports offered by clubs in the sample are controlled to account for sport-specific effects.

Table 3.1 Overview of variables.

Variable	Description	Scale
Dependent variables		
ln_mbfee_kids	Logged monthly membership fees for kids	Metric
ln_mbfees_youth	Logged monthly membership fees for adolescents	Metric
ln_mbfees_adults	Logged monthly membership fees for adults	Metric
Independent variables		
cost_coaches_pc_{t-1}	Cost per member for coaches and instructors	Metric
cost_adminstaff_pc_{t-1}	Cost per member for administrative staff	Metric
cost_sportequ_pc_{t-1}	Cost per member for sports equipment	Metric
cost_facilities_pc_{t-1}	Cost per member for maintenance and service for club-owned sports facilities	Metric
cost_rent_pc_{t-1}	Cost per member for rent and compensation for the usage of not-club-owned sports facilities	Metric
own_fac_{t-1}	Club possesses its own sports facilities (1=*yes*)	Dummy
fee_public_$fact_{t-1}$	Club has to pay a usage fee for using public sports facilities (1=*yes*)	Dummy
expend_div_{t-1}	Expenditure diversification (0=*perfect concentration*, 1=*perfect diversification*)	Metric
$compclub_{t-1}$	Club has problems due to competition from other sports clubs (1=*big/very big problem*)	Dummy
$compcommercial_{t-1}$	Club has problems due to competition from commercial sport providers (1=*big/very big problem*)	Dummy
$phil\_stay_{t-1}$	Our club should stay the way it is (1=*agree/totally agree*)	Dummy
$phil\_inexpensive_{t-1}$	Our club gives an inexpensive opportunity to practice sports (1=*agree/totally agree*)	Dummy
$phil\_lowinc_{t-1}$	Our club offers low income people the possibility to practice sports (1=*agree/totally agree*)	Dummy

continued on next page...

Table 3.1 Continued

Variable	Description	Scale
phil_nonsports$_{t-1}$	Our club sets high value on non-sports programmes (1=*agree/totally agree*)	Dummy
phil_youth$_{t-1}$	Our club is highly engaged in youth work (1=*agree/totally agree*)	Dummy
phil_talent$_{t-1}$	Our club is highly engaged in the promotion of young talent (1=*agree/totally agree*)	Dummy
share_volunteers$_{t-1}$	Share of volunteers relative to members	Metric
rev_div$_{t-1}$	Revenue diversification (0=*perfect concentration*, 1=*perfect diversification*)	Metric
probfinances$_{t-1}$	Club has problems due to the financial situation (1=*big/very big problem*)	Dummy
Controls		
mg$_{t-1}$	Total number of members	Metric
mg$^2{}_{t-1}$	Total number of members squared	Metric
inhabitants	Inhabitants of the community the club is situated in	Metric
foundation_year	Foundation year of the club	Metric
year	Year of survey (reference category=2011)	Dummy
type of sport	30 most relevant sports in the sample (1=*yes*)	Dummy

3.4.4 Data analysis

The data analysis consists of descriptive statistics and three ordinary least squares (OLS) regression models for monthly membership fees for kids, adolescents, and adults. For a robustness check, a seemingly unrelated regression model (SUR) is run where the three regression equations are estimated jointly with identical regressors. Identical regressors are common in financial models (Greene, 2012). Although in cases of identical regressors there is usually no reason to run anything else than OLS models in terms of efficiency, SUR models can be used to test whether there are cross-equation correlations of the errors. Usually, in the case of identical regressors, OLS models and SUR models are identical (Baum, 2006; Cameron & Trivedi, 2010). However, in the underlying study, the sample sizes of the three separate OLS models differ because some clubs received no membership fees for kids or adolescents - only for adults. On the other hand, there are also pure youth-sports clubs in the sample, meaning that they did not receive membership fees from adults. Therefore, the number of observations in the SUR-model is reduced to those clubs which charge membership fees for all three investigated groups (n=933).

Multicollinearity of the independent variables is checked using variance inflation factors (VIFs). Since all VIFs (except for members and its squared terms, which are naturally correlated) are below the suggested threshold of 10 (Hair, Black, Babin, & Anderson, 2010), there were no collinearity issues in the models. The independent variables are calculated with a one-period time lag (denoted with $_{t-1}$) to address endogeneity. This means that, by using lagged variables, it can be estimated whether the independent variables influence the level of membership fees in the next period, i.e., two years later. It was decided to use a one-period time lag of the independent variables instead of, e.g., a lag of two periods, as average membership fees varied from wave to wave (see Table 3.2). Models with a lag of two waves were estimated as a robustness check. The results were fairly similar to the one-period time lag models[1]. Standard errors were clustered by club in the OLS models to account for unobserved club heterogeneity.

Table 3.2 Membership fees in € over time (2009 to 2015).

	2009		2011		2013		2015	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
mbfee_kids	3.37	3.22	3.42	3.28	3.36	3.06	3.51	3.16
mbfees_youth	4.16	3.54	4.05	3.88	4.06	3.60	4.17	3.65
mbfees_adults	8.16	8.68	8.22	8.88	8.03	8.26	8.15	7.41

To improve the representativeness of the sample, weights were calculated based on club size. The weights were calculated for four groups of clubs: $\leqslant$ 100 members, 101 to 300 members, 301 to 1,000 members and $>$ 1,000 members. This procedure is executed for all 16 federal states since club size differed between states. The calculated weights are applied in the estimation of the OLS regression models. Weighting was not possible in the estimated SUR-model since importance weights were not available for the sureg-command in Stata.

3.5 Results and discussion

The summary statistics are displayed in Table 3.3. On average, monthly membership fees of single-sport clubs in Germany amount to € 3.41 for kids, € 4.10 for adolescents, and € 8.14 for adults. These values are similar to what half of all sports clubs in Germany charged in 2009 (Breuer & Wicker, 2009), i.e., in the 2nd wave of the panel study, and in 2017 (Breuer & Feiler, 2019), i.e., the 7th wave of the panel study. Compared to other European countries like the UK (SRA, 2018) and Switzerland (Lamprecht et al., 2017), the fees are slightly lower. A plausible

[1]The models with two-period time lags are available upon request.

explanation is that the underlying study only includes single-sport clubs whereas presented average fees in the other surveys apply to single- and multisport clubs. The share of membership fees relative to the clubs' total revenue amounts to 55%, underlining the importance of this revenue source.

Table 3.3 Summary statistics.

Variable	Mean	SD
mbfee_kids	3.415	3.176
mbfee_youth	4.096	3.690
mbfee_adults	8.136	8.333
ln_mbfee_kids	1.071	.766
ln_mbfees_youth	1.211	.753
ln_mbfees_adults	1.809	.733
share_mbfees	.550	.273
cost_coaches_pc	24.179	70.488
cost_adminstaff_pc	3.433	30.887
cost_sportequ_pc	16.523	54.386
cost_facilities_pc	22.695	54.748
cost_rent_pc	10.791	34.311
own_fac	.389	-
fee_public_fac	.244	-
expend_div	.660	.166
compclub	.115	-
compcommercial	.054	-
phil_stay	.505	-
phil_inexpensive	.847	-
phil_lowinc	.723	-
phil_nonsports	.312	-
phil_youth	.675	-
phil_talent	.271	-
share_volunteers	16.645	14.683
rev_div	.497	.233
probfinances	.116	-
mg	173.078	188.242
mg^2	65,366.91	152,134.36
inhabitants	229,932.59	679,941.055
foundation_year	1964	36.115

The highest average annual costs per member occur for coaches and instructors (€ 24.18), closely followed by costs for the maintenance and running of own sports facilities (€ 22.70). Average costs per member for sports equipment amount to € 16.52, and the average costs for renting not club-owned facilities are € 10.80.

The lowest average costs per member per year occur for administrative staff, with € 3.43. Expenditure diversification is 0.66, indicating a moderate to high number of different types of costs. Almost 39% of single-sport clubs possess their own sports facilities, and about a quarter of the clubs have to pay a usage fee when using public sports facilities.

Regarding competition, 11.5% of the clubs state that they have a large or very large problem due to the competition of other NSCs, while only 5.4% feel a problem due to the competition of CSPs. Pertaining to the members' interests, the results show that about half of the clubs feel that the club should stay the way it is, i.e., keep its traditions. A large share of clubs, namely 84.7%, state that the club gives an inexpensive opportunity to practice sports, supporting the general notion of NSCs offering sports for a small amount of money. In line with this is that 72.3% of clubs state that they offer low-income people the possibility to practice sports. A similar proportion of clubs (67.5%) are highly engaged in youth work, and almost one-third of clubs set high value on non-sports programs, i.e., fostering the aspect of sociability. A slightly lower proportion of clubs (27.1%) reports to be highly engaged in the promotion of young talent, i.e., involved in elite and competitive sport.

The proportion of volunteers among members amounts to 16.6%. Revenue diversification reaches a moderate level (0.497), similar to prior studies on NSCs (Wicker, Longley, & Breuer, 2015). With regard to financial problems, 11.6% of the sports clubs report having a big or very big problem due to the financial situation of the club.

Table 3.4 displays the results of the three OLS regression models. The results show that membership fees for kids, adolescents, and adults are significantly determined by different cost categories. In this context, costs per member for coaches and instructors, for running own sports facilities, and for renting sports facilities significantly influence the amount of membership fees in all three models: Increasing costs in these three categories lead to increases in membership fees for all three groups of members in the next period, which is in line with theoretical assumptions that costs are an important factor in pricing decisions of sports clubs (Shank & Lyberger, 2015; Young et al., 2010).

These results are further supported by the finding that increasing expenditure diversification, i.e., costs in various areas, leads to higher membership fees for all three groups of members. However, not all cost categories that are related to the core sports offers seem to be relevant for clubs when setting membership fees. In this regard, no significant effects are found for costs for sports equipment, and costs for administrative staff also do not show any significant effects. Thus, costs for sports equipment, which are necessary to offer the sports programs and should, therefore, be included in the calculation of membership fees (Fischer & Tschurer, 2011; Wicker, 2011), are neglected. Given that the highest costs per member occur for coaches

and facilities, it is plausible that clubs mainly take these cost categories into account when calculating membership fees.

Table 3.4 Results of the OLS regression models.

	1: ln_mbfee_kids		2: ln_mbfee_youth		3: ln_mbfee_adults	
Variables	Coef.	t-stat.	Coef.	t-stat.	Coef.	t-stat.
cost_coaches_pc$_{t-1}$	0.002**	2.437	0.002***	2.792	0.001**	2.109
cost_adminstaff_pc$_{t-1}$	-0.002	-1.173	-0.002	-1.398	0.000	0.341
cost_sportequ_pc$_{t-1}$	0.000	0.374	0.000	0.278	0.000	0.828
cost_facilities_pc$_{t-1}$	0.001*	1.868	0.001**	2.036	0.002***	3.758
cost_rent_pc$_{t-1}$	0.004***	6.842	0.004***	7.188	0.004***	5.827
own_fac$_{t-1}$	0.109	1.372	0.150**	2.017	0.176***	2.710
fee_public_fact$_{t-1}$	0.212***	3.156	0.196***	2.969	0.109*	1.963
expend_div$_{t-1}$	0.349**	1.967	0.367**	2.232	0.418***	3.064
compclub$_{t-1}$	-0.015	-0.215	0.028	0.401	0.040	0.621
compcommercial$_{t-1}$	-0.013	-0.113	0.010	0.093	0.111	1.192
phil_stay$_{t-1}$	-0.061	-1.245	-0.066	-1.472	-0.073*	-1.889
phil_inexpensive$_{t-1}$	-0.099	-1.224	-0.028	-0.430	-0.097	-1.630
phil_lowinc$_{t-1}$	-0.138**	-2.187	-0.124**	-2.297	-0.135***	-2.766
phil_nonsports$_{t-1}$	-0.122**	-2.580	-0.096**	-2.132	-0.047	-1.185
phil_youth$_{t-1}$	0.259***	2.925	0.227***	2.937	0.188***	3.197
phil_talent$_{t-1}$	0.219***	3.771	0.207***	3.654	0.180***	3.720
share_volunteers$_{t-1}$	-0.000	-0.104	-0.001	-0.547	-0.001	-0.336
rev_div$_{t-1}$	-0.310**	-2.156	-0.294**	-2.135	-0.345***	-3.051
probfinances$_{t-1}$	0.173**	2.242	0.205***	2.896	0.094	1.596
mg$_{t-1}$	0.000	0.672	-0.000	-0.264	-0.000	-0.026
mg$^2_{t-1}$	-0.000	-0.930	0.000	0.500	0.000	0.408
inhabitants	0.000***	5.022	0.000***	5.833	0.000***	5.898
foundation_year	0.001	1.620	0.002**	2.277	0.000	0.286
sport dummies	included		included		included	
year dummies	included		included		included	
constant	-2.221	-1.218	-2.993*	-1.753	1.084	0.791
p	<.001***		<.001***		<.001***	
F	40.29		21.38		45.01	
R-squared	0.456		0.479		0.556	
n	938		988		1,059	

Note: *** p< 0.01, ** p< 0.05, * p< 0.1; displayed are the unstandardized coefficients; standard errors clustered by club.

However, this requires that other income sources are available to cover the remaining costs (Kotler, 2000). In this regard especially, subsidies and sponsorship income

might help, as sports equipment can be subsidized or paid for by public institutions (Feiler et al., 2018) or sponsors (Breuer & Feiler, 2019).

The importance of infrastructure for membership fee calculations is reflected in the following results: Clubs with own sports facilities charge higher membership fees for adolescents and adults than clubs without such facilities. In this case, higher membership fees for adults and adolescents allow keeping membership fees for kids lower, which is in accordance with the principle of solidarity (Horch, 1994). Moreover, clubs that are required to pay usage fees for public sports facilities transfer these expenses to members by charging higher membership fees for all three groups.

Regarding competition from other NSCs and CSPs as possible factors influencing the level of membership fees, no significant effects are found. An explanation in terms of CSPs could be that offers and prices of CSPs differ largely from sports clubs' offers (DSSV, 2018; Ulseth, 2004), and only few sports clubs (5.4%) perceive problems due to competition from CSPs. This might indicate that clubs do not see the relevance in taking CSPs into account for pricing decisions. However, this result should be treated with caution since competition was measured as a perceived problem by clubs, meaning that no actual information on fees or prices from competitors was considered.

Demand-oriented pricing is operationalized by several factors reflecting the members' interests. Clubs which aim at staying the way they are, i.e., traditional clubs, charge lower membership fees for adults. It is possible that traditional clubs are rather lethargic (Thiel & Mayer, 2009), meaning less flexible and open to changes in the environment, which might call for adjustments of membership fees. As expected, social policy aspects have a decreasing impact on the level of membership fees: Clubs that particularly follow the goal of providing sports for low-income people charge significantly lower membership fees for all three groups, and clubs that set high value on non-sports programs apart from the core sporting aspects also have lower membership fees for children and adolescents. These results support the notion that nonprofit pricing decisions are a trade-off between fulfilling the overall social mission of the organization and renouncing possible additional income to stabilize the clubs' financial situation (Young et al., 2010).

On the other hand, if member demand is rather competitive-oriented, membership fees increase, as reflected in the following results: Clubs following competitive goals by promoting young talents and being highly engaged in youth work charge higher membership fees for all three groups of members. This might be ascribed to the organization of competitive sport in Germany: The prerequisite to participate in sporting competitions, e.g., on the regional or national level, is to be a member of a sports club. Moreover, competitive sport is expensive (Wicker, 2011), which is consequently reflected in the level of membership fees. The engagement in youth sport is cross-subsidized by higher levels of membership fees, i.e., all members are

paying for something that they do not directly receive benefit from personally, which is related to the principle of solidarity (Horch, 1994; Nagel, 2006).

Finally, the results suggest that pricing decisions of NSCs are related to the specifics of the nonprofit context. Although higher shares of volunteers could substitute financial resources (Coates et al., 2014) and thereby possibly have a decreasing effect on membership fees, no significant effects are found in the models. However, a diversified income portfolio leads to decreases in membership fees in all three groups. Thus, if more revenue from various sources is available to cover costs, clubs can afford to charge lower membership fees (Kotler, 2000). Finally, the results show that clubs with perceived problems due to their financial situation increased the level of membership fees two years later for kids and adolescents, probably knowing that club members are willing to support the club financially by paying higher fees in tense financial situations (Swierzy et al., 2018b). Hence, a prerequisite for keeping membership fees stable is a healthy financial situation.

Club size and its squared term are controlled in the models but did not show any significant effects, suggesting that the number of members is no significant predictor of the level of membership fees in single-sport clubs. However, a different picture could appear when investigating multisport clubs, which usually have more members (Breuer & Feiler, 2017a) and thereby potentially more crowding. Size effects in terms of economies of scope have previously been found for sports clubs in Germany and Switzerland (Wicker, Breuer, Lamprecht, & Fischer, 2014).

The results of the SUR model, which are displayed in Table 3.5, show similar results to the OLS regression models, suggesting that the results are fairly robust. However, there are small differences between the models. For example, while there are no significant effects with the club goal of giving an inexpensive possibility to practice sports in the OLS models, this variable has a significant negative, i.e., decreasing effect on membership fees for adults in the SUR model. The differences between the results of the OLS models and the SUR model might be ascribed to the different sample sizes. Moreover, the SUR model cannot be estimated with weighted data and clustered standard errors. Therefore, the results of the SUR model should only serve as a robustness-check.

However, an additional information of the SUR model is that decisions about membership fees for the three different groups of members are related and not taken by clubs independently from each other. This is shown by the Breusch-Pagan Lagrange multiplier test for error independence in the SUR model, which reveals that the errors in the three equations are positively correlated ($chi^2 = 1{,}688.055$, $p = 0.000$), which confirms that the three types of membership fees have similar underlying pricing determinants.

Table 3.5 Results of the SUR analysis.

	4: ln_mbfee_kids		5: ln_mbfee_youth		6: ln_mbfee_adults	
Variables	Coef.	t-stat.	Coef.	t-stat.	Coef.	t-stat.
$cost\_coaches\_pc_{t-1}$	.001***	2.609	.001***	3.406	.001*	1.774
$cost\_adminstaff\_pc_{t-1}$	-.001	-1.234	-.002**	-2.087	.001	.662
$cost\_sportequ\_pc_{t-1}$	.001*	1.655	.000	.852	.000	1.564
$cost\_facilities\_pc_{t-1}$	.001***	3.607	.001***	3.686	.002***	6.063
$cost\_rent\_pc_{t-1}$	.004***	7.455	.004***	8.438	.004***	9.851
own_fac_{t-1}	.130**	2.425	.163***	3.214	.211***	4.696
$fee\_public\_fact_{t-1}$	.225***	4.587	.205***	4.425	.103**	2.494
$expend\_div_{t-1}$	.381***	2.809	.453***	3.522	.494***	4.327
$compclub_{t-1}$	.046	.730	.064	1.067	.111**	2.069
$compcommercial_{t-1}$	.070	.803	.060	.727	.108	1.468
$phil\_stay_{t-1}$	-.066*	-1.738	-.075**	-2.079	-.068**	-2.119
$phil\_inexpensive_{t-1}$	-.064	-1.089	-.081	-1.459	-.105**	-2.118
$phil\_lowinc_{t-1}$	-.145***	-2.828	-.115**	-2.373	-.123***	-2.865
$phil\_nonsports_{t-1}$	-.100**	-2.428	-.089**	-2.297	-.064*	-1.854
$phil\_youth_{t-1}$	.211***	4.261	.197***	4.214	.138***	3.327
$phil\_talent_{t-1}$	.224***	5.080	.216***	5.172	.167***	4.498
$share\_volunteers_{t-1}$	-.001	-.763	-.002	-.947	-.001	-1.015
rev_div_{t-1}	-.311***	-3.179	-.293***	-3.159	-.273***	-3.318
$probfinances_{t-1}$	.183***	3.071	.211***	3.734	.120**	2.394
mg_{t-1}	.001**	2.228	.000	0.555	.000	.318
mg^2_{t-1}	-.000*	-1.676	.000	0.244	.000	.292
inhabitants	.000***	7.330	.000***	8.081	.000***	7.882
foundation_year	.002***	3.062	.002***	3.685	.000	.733
sport dummies	included		included		included	
year dummies	included		included		included	
constant	-3.017**	-2.473	-3.396***	-2.938	.699	.681
p	<.001***		<.001***		<.001***	
chi^2	722.52		845.70		1,190.70	
R-squared	0.436		0.476		0.561	
n	933		933		933	

Note: *** p<0.01, ** p<0.05, * p<0.1.

3.6 Conclusion

This study empirically investigates relevant factors for pricing decisions of NSCs for three types of membership fees. Membership fees are the most important revenue source for NSCs, and thereby it is highly relevant for the running of club opera-

tions to accurately decide the fee level. Based on classical pricing-approaches, it is suggested that clubs set membership fees related to costs, competition, members' demand, and specifics of the nonprofit context. The results show that costs related to coaches and sports facilities are particularly relevant for the setting of membership fees, while costs for sports equipment are not considered by clubs in the pricing of membership fees. Thus, other income, e.g., sponsorship income or subsidies, is needed to cover these costs. Thereby, it became clear that NSCs often seem to face a trade-off between covering costs, which is a prerequisite for the clubs' survival in the long run (Young, 2007), and fulfilling the clubs' social mission. Moreover, perceived competition did not play a role in the setting of membership fees, while the importance of social aspects in the pricing decisions of clubs is supported by the results of this study. However, when facing financial problems, clubs react by increasing the level of membership fees.

The results of the study inform about reasons for differences in membership fees. For example, if individuals are interested in participating in competitive sports, they need to expect that clubs offering this possibility will charge higher membership fees. On the other hand, the possibilities to participate in sports offers and social activities is also open for socially vulnerable groups, as clubs that have set the goal of providing offers for low-income people consequently set membership fees at lower levels.

Regarding clubs, it seems possible to avoid financial problems if further costs related to the provision of sports programs, namely sports equipment, are taken into account when calculating membership fee levels. Since membership fees represent autonomous income, this would be a safer approach than relying on less certain income sources, i.e., heteronymous income, such as sponsorship revenue (Emrich et al., 2001). To increase acceptance among members for possibly higher levels of membership fees, which are necessary to cover all sports-related costs, it could help to make the yearly occurring costs public, i.e., to further decrease information asymmetries, as transparency was found to increase WTP (McCarville, 1991).

This study has some limitations that can guide the way for future research. First, only single-sport clubs were examined, which disregards a large number of sports clubs that offer more than one type of sport and are thereby likely to have different fee structures. Second, the operationalization of competition as a pricing-approach could be improved. In the underlying study, competition did not account for actual prices or fees of competitors, which could be considered in future research by using information on the clubs' environment. This could also include adding further context variables from the macro level, e.g., the regional gross domestic product or the unemployment rate in the region of the club, which might be relevant for the level of membership fees. Lastly, although the regression models are estimated with lagged independent variables and thereby attempt to allow causal interpretations,

the estimation strategy can be improved. Unfortunately, models estimating the impact of changes in the independent variables between 2009 and 2011 on changes in the dependent variables between 2013 and 2015 using a horizontal panel fail to be significant, probably due to the small sample size (n=107 clubs).

3.7 References

Anderson, G. M., Shughart, W. F., & Tollison, R. D. (2004). The economic theory of clubs. In C. K. Rowley & F. Schneider (Eds.), *The encyclopedia of public choice* (pp. 499–504). Boston, MA: Springer US.

Anheier, H. K. (2014). *Nonprofit organizations: Theory, management, policy* (2nd ed.). London, England: Routledge.

Baum, C. F. (2006). *An introduction to modern econometrics using Stata.* College Station, Texas: Stata Press.

Breuer, C., & Feiler, S. (2015). *Sport Development Report 2013/2014: Analysis of the situation of sports clubs in Germany* (abbreviated version). Cologne, Germany: Sportverlag Strauß.

Breuer, C., & Feiler, S. (2017a). Methode. In C. Breuer (Ed.), *Sportentwicklungsbericht 2015/2016 (Band I): Analyse zur Situation der Sportvereine in Deutschland* (pp. 780–803). Hellenthal, Germany: Sportverlag Strauß.

Breuer, C., & Feiler, S. (2017b). Sportverein im Wandel: Zur Entwicklung der Sportvereine in Deutschland von 2005 bis 2015. In C. Breuer (Ed.), *Sportentwicklungsbericht 2015/2016 (Band I): Analyse zur Situation der Sportvereine in Deutschland* (pp. 243–263). Hellenthal, Germany: Sportverlag Strauß.

Breuer, C., & Feiler, S. (2019). *Sportvereine in Deutschland: Organisationen und Personen. Sportentwicklungsbericht für Deutschland 2017/2018, Teil 1.* Bonn, Germany: Bundesinstitut für Sportwissenschaft.

Breuer, C., & Wicker, P. (2009). *Sport Development Report 2013/2014: Analysis of the situation of sports clubs in Germany* (abbreviated version). Cologne, Germany: Sportverlag Strauß.

Breuer, C., Wicker, P., & Swierzy, P. (2016). *Angemessene Mitgliedschaftsbeiträge in den Fußball- und Leichtathletikvereinen des WFLV.* Cologne, Germany: Deutsche Sporthochschule Köln.

Buchanan, J. M. (1965). An economic theory of clubs. *Economica, 32*(125), 1–14.

Cameron, A. C., & Trivedi, P. K. (2010). *Microeconometrics using Stata* (Revised edition). College Station, Texas: Stata Press.

Carroll, D. A., & Stater, K. J. (2009). Revenue diversification in nonprofit organizations: Does it lead to financial stability? *Journal of Public Administration Research and Theory, 19*(4), 947–966.

Coates, D., & Wicker, P. (2017). Financial management. In R. Hoye & M. M. Parent (Eds.), *The SAGE handbook of sport management* (pp. 117–137). London, England: Sage.

Coates, D., Wicker, P., Feiler, S., & Breuer, C. (2014). A bivariate probit examination of financial and volunteer problems of non-profit sport clubs. *International Journal of Sport Finance, 9*(3), 230–248.

Cornes, R., & Sandler, T. (1986). *The theory of externalities, public goods, and club goods*. Cambridge, UK: Cambridge University Press.

Deutscher Bundestag. (2019). *14. Sportbericht der Bundesregierung: Drucksache 19/9150*. Berlin, Germany: Deutscher Bundestag.

DOSB. (2018). *Bestandserhebung 2018*. Frankfurt, Germany: Deutscher Olympischer Sportbund.

DSSV. (2018). *Eckdaten der deutschen Fitness-Wirtschaft 2018*. Hamburg, Germany: Arbeitgeberverband deutscher Fitness- und Gesundheit-Anlagen.

Emrich, E., Pitsch, W., & Papathanassiou, V. (2001). *Die Sportvereine: Ein Versuch auf empirischer Grundlage*. Schorndorf, Germany: Hofmann.

European Commission. (1999). *The European model of sport. Consultation Document of Directorate-General X*. Brussels, Belgium: European Commission.

Falk, M. (2008). A hedonic price model for ski lift tickets. *Tourism Management, 29*(6), 1172–1184.

Feiler, S., Wicker, P., & Breuer, C. (2018). Public subsidies for sports clubs in Germany: Funding regulations vs. empirical evidence. *European Sport Management Quarterly*. doi: 10.1080/16184742.2018.1541915

Fischer, D., & Tschurer, G. M. (2011). *Kostenrechnung und Beitragsgestaltung im Sportverein*. Duisburg, Germany: Landessportbund Nordrhein-Westfalen.

Goodman, A. C., & Thibodeau, T. G. (2003). Housing market segmentation and hedonic prediction accuracy. *Journal of Housing Economics, 12*(3), 181–201.

Gratton, C., & Taylor, P. (2000). *Economics of sport and recreation*. London, England: E & FN Spon.

Greene, W. H. (2012). *Econometric analysis* (7th ed.). Essex, England: Pearson Education Limited.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis: A global perspective* (7th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.

Hallmann, K., Feiler, S., & Breuer, C. (2015). Design and delivery of sport for all programmes: Should it be market, non-profit, or state-run? *International Journal of Sport Policy and Politics, 7*(4), 565–585.

Hansmann, H. (1980). The role of nonprofit enterprise. *The Yale Law Journal, 89*(5), 835–902.

Heinemann, K. (1995). *Einführung in die Ökonomie des Sports*. Schorndorf, Germany: Hofmann.

Heinemann, K. (2005). Sport and the welfare state in Europe. *European Journal of Sport Science, 5*(4), 181–188.

Hess, S., Surry, Y., Kron, R., Liljenstolpe, C., Lindberg, G., & Andersson, H. (2014). A hedonic analysis of the price for horse riding lessons in Sweden. *Journal of Outdoor Recreation and Tourism, 7–8*(Supplement C), 65–74.

Horch, H.-D. (1992). *Geld, Macht und Engagement in freiwilligen Vereinigungen: Grundlage einer Wirtschaftssoziologie von Non-Profit-Organisationen*. Berlin, Germany: Duncker & Humblot.

Horch, H.-D. (1994). On the socio-economics of voluntary associations. *Voluntas: International Journal of Voluntary and Nonprofit Organizations, 5*(2), 219–230.

Huth, C., & Kurscheidt, M. (2019). Membership versus green fee pricing for golf courses: The impact of market and golf club determinants. *European Sport Management Quarterly, 19*(3), 331–352.

Kiefer, S. (2015). Are riding club members willing to pay or work for overall quality improvement? *Managing Sport and Leisure, 20*(2), 100–116.

Klenk, C., Schlesinger, T., & Nagel, S. (2017). Zum Zusammenhang von Mitgliederinteressen und Vereinszielen. In L. Thieme (Ed.), *Der Sportverein: Versuch einer Bilanz* (pp. 273–294). Schorndorf, Germany: Hofmann.

Kotler, P. (1997). *Marketing management: Analysis, planning, implementation, and control* (9th ed.). Upper Saddle River, NJ: Prentice Hall.

Kotler, P. (2000). *Marketing management: Millennium edition* (10th ed.). Upper Saddle River, NJ: Prentice Hall.

Lamprecht, M., Bürgi, R., Gebert, A., & Stamm, H. (2017). *Sportvereine in der Schweiz: Entwicklungen, Herausforderungen und Perspektiven*. Magglingen, Switzerland: Bundesamt für Sport BASPO.

Limehouse, F. F., Melvin, P. C., & McCormick, R. E. (2010). The demand for environmental quality: An application of hedonic pricing in golf. *Journal of Sports Economics, 11*(3), 261–286.

McCarville, R. E. (1991). An empirical investigation of the influence of cost information on willingness to pay for public aerobics classes. *Leisure Sciences, 13*(2), 85–96.

Nagel, S. (2006). *Sportvereine im Wandel: Akteurtheoretische Analysen zur Entwicklung von Sportvereinen*. Schorndorf, Germany: Hofmann.

Nagel, S. (2008). Goals of sports clubs. *European Journal for Sport and Society, 5*(2), 121–141.

Pawlowski, T. (2011). Hedonic prices for ski-lift passes in Europe. *The Empirical Economic Letters, 10*(8), 819–825.

Rittner, V., & Breuer, C. (2004). *Gemeinwohlorientierung und soziale Bedeutung des Sports* (2nd ed.). Cologne, Germany: Sport und Buch Strauß.

Rosen, S. (1974). Hedonic prices and implicit markets: Product differentiation in pure competition. *Journal of Political Economy, 82*(1), 34–55.

Shank, M. D., & Lyberger, M. R. (2015). *Sports marketing: A strategic perspective* (5th ed.). Oxford, England: Routledge.

SRA. (2018). *Sports club survey report 2017/18.* London, England: Sport and Recreation Alliance.

Steinberg, R. (2007). Membership income. In D. R. Young (Ed.), *Financing nonprofits: Putting theory into practice* (pp. 121–155). Lanham, MD: AltaMira Press.

Steinberg, R. (2010). Principal–agent theory and nonprofit accountability. In K. J. Hopt & T. Von Hippel (Eds.), *Comparative corporate governance of non-profit organizations* (pp. 73–126). Cambridge, UK: Cambridge University Press.

Swierzy, P., Wicker, P., & Breuer, C. (2018a). The impact of organizational capacity on voluntary engagement in sports clubs: A multi-level analysis. *Sport Management Review, 21*(3), 307–320.

Swierzy, P., Wicker, P., & Breuer, C. (2018b). Willingness-to-pay for memberships in nonprofit sports clubs: The role of organizational capacity. *International Journal of Sport Finance, 13*(3), 261–278.

Thiel, A., & Mayer, J. (2009). Characteristics of voluntary sports clubs management: A sociological perspective. *European Sport Management Quarterly, 9*(1), 81–98.

Ulseth, A.-L. B. (2004). Social integration in modern sport: Commercial fitness centres and voluntary sport clubs. *European Sport Management Quarterly, 2*(4), 95–115.

Wicker, P. (2011). Willingness-to-pay in non-profit sports clubs. *International Journal of Sport Finance, 6*(2), 155–169.

Wicker, P., Breuer, C., & Hennigs, B. (2012). Understanding the interactions among revenue categories using elasticity measures: Evidence from a longitudinal sample of non-profit sport clubs in Germany. *Sport Management Review, 15*(3), 318–329.

Wicker, P., Breuer, C., Lamprecht, M., & Fischer, A. (2014). Does club size matter: An examination of economies of scale, economies of scope, and organizational problems. *Journal of Sport Management, 28*(3), 266–280.

Wicker, P., Longley, N., & Breuer, C. (2015). Revenue volatility in German nonprofit sports clubs. *Nonprofit and Voluntary Sector Quarterly, 44*(1), 5–24.

Young, D. R. (2007). Why study nonprofit finance? In D. R. Young (Ed.), *Financing nonprofits: Putting theory into practice* (pp. 3–20). Lanham, MD: AltaMira Press.

Young, D. R., Jung, T., & Aranson, R. (2010). Mission-market tensions and nonprofit pricing. *The American Review of Public Administration, 40*(2), 153–169.

4 How to raise voluntary giving for nonprofit sports clubs: an analysis of factors influencing donations

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Abstract

Nonprofit sports clubs generate revenue from a variety of sources. One of the main income categories is donations. Previous research only analyzed the amount of money generated through donations, but not the influencing factors. The purpose of this study is to investigate determinants of donations for nonprofit sports clubs. The study is based on the public goods theory (Weisbrod 1986) and the contract failure theory (Hansmann 1980) and makes use of an unbalanced panel data set from a nationwide online survey of nonprofit sports clubs in Germany (n=41,343). The results show that particularly the provision of elite sport and the promotion of young talents positively influence the reception of donations. Moreover, sports clubs caring for social aspects, companionship, and conviviality as core values are able to generate higher revenues from donations. The same applies to clubs employing paid staff. Contrary, a commercial orientation was found to have a negative effect.

Keywords: Nonprofit finance; Income sources; Nonprofit sports organizations

4.1 Introduction

Nonprofit organizations are characterized as private organizations supplying public goods and mixed goods with private and public components (Anheier 2005; Weisbrod and Dominguez 1986). Moreover, goods with positive externalities are produced by nonprofit organizations (Rooney 2007) which contribute to the welfare of society (Gratton and Taylor 2000). These characteristics also apply to nonprofit sports clubs which are the main pillar of mass sport provision in many European countries as well as overseas (e.g., Enjolras 2002; Lasby and Sperling 2007; Vos et al. 2012). Nonprofit sports clubs are concerned with offering affordable sports opportunities which are available to a wide range of the population. The clubs are "thereby promoting the idea of sport for all" (Enjolras 2002, p. 353). Moreover, the intention of nonprofit sports clubs is to offer a sports supply which is welfare oriented and produces social benefits (Vos et al. 2012). A major factor for the existence of nonprofit sports clubs, apart from the voluntary work accomplished in the clubs, is their financial health since a financially secured situation is vital for the clubs' overall success in fulfilling their broader mission (Allison 2001; Young 2007). This is particularly important since prior research showed that other types of nonprofit organizations have more financial resources at their disposal than sports organizations which makes the latter potentially financially vulnerable (Lasby and Sperling 2007). Despite the importance of a stable financial basis, reaching and keeping such a situation is a key challenge to many nonprofit sports clubs in Western Europe (Lamprecht et al. 2012; SRA 2013).

Nonprofit sports clubs can be described as "community-based economy voluntary organizations" (Enjolras 2002, p. 356) as they receive a combination of public, voluntary, and market resources. This means that nonprofit sports clubs, like nonprofit organizations in general (Grønbjerg 1991), are dependent on a wide range of different income sources. This requires them to pay attention to their total revenues, but also to the composition of their income portfolio since interactions between different revenue categories (crowd-out and crowd-in effects) might exist (Kearns 2007; Young 2007). The diverse revenue sources are among others membership and admission fees, public subsidies, service-fees from nonmembers, and sponsorship income (cf., Wicker et al. 2012). Additionally, an important revenue source among nonprofit organizations in general is donations (Okten and Weisbrod, 2000; Rooney, 2007). Different characteristics of nonprofit organizations, particularly the nondistribution constraint, lead to the assumption that nonprofits are more trustworthy (Hansmann 1987) which in turn makes potential donors more willing to donate to nonprofits since the money will most likely be used for the proposed purpose (James 1990). Also, in nonprofit sports clubs, donations are one of the main sources of income, for

example, in Canada (Lasby and Sperling 2007) and Germany (Wicker et al. 2012), which makes this revenue source an important one for the clubs.

Although different studies exist which have analyzed the characteristics of individual donors to nonprofit organizations (e.g., Khanna and Sandler 2000; Okten and Weisbrod 2000) as well as crowding-out effects of public subsidies on donations (e.g., Payne 1998; Steinberg 1991), no focus has so far been put on factors influencing donations from an organizational perspective. Since donations as an income source for nonprofit organizations have been found to be more volatile than other income sources such as public subsidies (Grønbjerg 1991), it seems particularly important to detect which factors have an impact on the reception of donations for nonprofit sports clubs to secure this important revenue source. Thus, this study advances the main research question: Which clubs are more likely to generate revenues form donations than others? The findings help nonprofit sports clubs to secure receiving donations and thereby have implications for the sports clubs' management. The study adds to the body of research on nonprofit finance in sports.

4.2 Literature review

The literature on financing nonprofits is widespread and has focused to a large part on funding sources, the income mix, and revenue diversification (e.g., Chang and Tuckman 1994; Fischer et al. 2011; Frumkin and Keating 2011). Moreover, various studies have analyzed main revenue categories of "pure" nonprofit institutions (Weisbrod 2004, p. 42), namely donations and public subsidies. On the individual level, demographic and economic factors of donors such as age, income, and educational level were investigated and found to be positively correlated with individual giving (for an overview see Rooney 2007). Moreover, research concentrated on the behavior of people and organizations and investigated motives for donating to nonprofits (e.g., Ashley et al. 2010; Cordes and Sansing 2007). In this context, particularly, the concept of altruism plays an important role to explain individual giving behavior (Rose-Ackerman 1996). However, not all donors are pure altruists as there are many other motives for charitable giving (Andreoni 1990). It was found that donors prefer to pay for programmatic expenses, but not for overhead costs (Rooney 2007), which shows that supporting the key product of nonprofit organizations plays an important role for donors. This most likely applies in situations of impure altruism where people donating also receive private benefits from the contribution (Andreoni 1989).

Apart from individual motives for donating, determinants of donations in different organizational forms of nonprofits have been investigated, for example, in UK charities (Khanna and Sandler 2000) and different organizational types of nonprofits in the USA, using economic variables such as price and other income sources as deter-

minants of donations (Okten and Weisbrod 2000). Alike the named studies, further research investigated possible interactions, so-called crowd-out and crowd-in effects, between donations and other revenue categories, e.g., public subsidies and commercial income (e.g., Andreoni and Payne 2011; Herman and Rendina 2001; Khanna and Sandler 2000; Payne 1998; Sokolowski 2013; Wicker et al. 2012). The various studies on interactions between public subsidies and donations come to different results, finding both crowd-out (Andreoni and Payne 2011; Kingma 1989; Payne 1998) as well as crowd-in effects (Khanna and Sandler 2000; Sokolowski 2013; Wicker et al. 2012). These divergent effects have recently been confirmed by Sokolowski (2013) who concludes that the relationship between donations and public funding is a very complex one. With regard to commercial income and donations, an American case study looked at donors' reactions to commercial activities of nonprofits. The study showed that only a small part of the donors cared about the nonprofit being involved in commercial activities. However, if people did care about such activities, they mostly only approved commercial action if it was used to advance the mission of the organization (Herman and Rendina 2001). In the sports context, a study conducted among Norwegian sports clubs investigated crowding-out between commercial income and public grants as well as voluntary resources (Enjolras 2002). The author found that neither public funding nor voluntary work is crowded-out by commercial activities. However, Enjolras (2002) put no focus on interactions between donations and other income categories. This has been investigated by Wicker et al. (2012) who find crowd-in effects between donations and subsidies.

As described above, a large stream of research in the field of economics and finances of nonprofit organizations deals with questions of crowding-out and crowding-in effects. Andreoni and Payne (2011) investigated interactions between donations and public subsidies and put a special focus on fundraising. The authors found that public grants crowd-out donations particularly due to reduced fundraising activities. Like the study by Andreoni and Payne (2011), research focusing on donations for nonprofits frequently concentrates on fundraising activities to acquire donations. This is particularly true for studies conducted in the USA and the UK (e.g., Marudas and Jacobs 2004; Okten and Weisbrod 2000; Weisbrod and Dominguez 1986). However, fundraising activities in nonprofit sports clubs are rather unusual which is documented by the fact that expenses for fundraising activities are not even surveyed in different sports club studies (e.g., Breuer and Wicker 2011; Lamprecht et al. 2012). This also applies to the underlying study which makes it impossible to investigate fundraising expenses as a determinant of donations. Thereby, the relevance for investigating determinants of donations for nonprofit sports clubs is once more stressed as the clubs are in different positions than other nonprofits which receive money through excessive fundraising and have more financial resources at their disposal (Gumulka et al. 2005; Lasby and Sperling 2007). Nonprofit sports clubs

on the other hand often have to deal with scarce human and financial resources that foster organizational problems (Wicker and Breuer 2013). The financial situation of sports clubs has been found to be a challenge for clubs worldwide (e.g., Gumulka et al. 2005; Lasby and Sperling 2007). Allison (2001) detected that sports clubs are oftentimes financially underdeveloped which is reflected by 41% of the surveyed clubs stating to have financial difficulties. In a recent British survey on sports clubs, it is reported that 52% of the clubs see a challenge in accessing funding in the next 2 years and 48% find a challenge in generating sufficient income. For 41% of the clubs, keeping financial sustainability is found to be an issue (SRA, 2013).

Despite the existing financial problems of nonprofit sports clubs, the literature review shows that there is a lack of research in terms of investigating drivers behind the various income sources that a sports club receives. However, to secure the revenues for the clubs, it is important to know which clubs are more likely to receive donations than other clubs. Since donations are one of the most important revenue sources of nonprofit sports clubs, this study aims at beginning to close the gap in the literature by investigating determinants of donations for nonprofit sports clubs in Germany from an organizational point of view.

4.3 Theoretical framework

This study is based on economic theories of nonprofit organizations. Particularly, two approaches which, according to Hansmann (1987) as well as Ben-Ner and Gui (2003), can be regarded as complementary, build the theoretical framework: first, the public goods theory of the nonprofit sector which explains the existence of nonprofit organizations based on failure scenarios (Weisbrod 1986); second, the contract failure theory which is based on information asymmetries and the nondistribution constraint (Hansmann 1980). Both theories serve not only to explain the existence of the nonprofit sector, but also give justification for why nonprofit organizations receive donations.

4.3.1 Public goods theory

According to the public goods theory which has originally been developed by Weisbrod (1986), nonprofit organizations produce public (or collective) goods (Steinberg 2006) and exist due to market failure and government failure (Weisbrod 1986). A market failure situation arises when a private market "fails to cater adequately for the full effects of the market on the welfare of society" (Gratton et al. 2012, p. 22). In such a situation, the government comes into play to compensate the underprovision of the public good. However, if also governments fail to provide an adequate level of public goods, nonprofits are able to satisfy heterogeneous demand.

In this case, following the public goods theory, "nonprofit organizations provide public goods through donor support" (Anheier 2005, p. 123). The reasoning for charitable giving is that donors want to secure the collective output of the nonprofit (Kingma 1997). Thus, the theory serves to generally explain donors' contributions to nonprofit organizations.

Weisbrod's theory (1986) in its original form puts a focus on nonprofit organizations with an output of pure public goods. However, this theory has been expanded to nonprofit organizations which produce mixed goods with public and private components as well as goods with positive externalities (for an overview see Kingma 1997). Nonprofit sports clubs can be described as such organizations. Pertaining to the public goods aspect, the clubs are beneficial to society by producing collective goods such as national sporting success which foster civic pride (Gratton and Taylor 2000). The production of national sporting success is only possible due to nonprofit sports clubs: they form the basis for elite sport in Germany, and without the clubs, no squad athletes could arise. Thus, according to the public goods theory, donors are willing to give money to nonprofit sports clubs to keep the output of the public good "national sporting success" at an adequate level. Following this argumentation, the first hypothesis is derived:

H1 Being involved in elite sports and talent promotion as a nonprofit sports club has a positive impact on the reception of donations.

Apart from national sporting success, nonprofit sports clubs fulfill further important societal functions and contribute to the social welfare of a nation (Lamprecht et al. 2012). The output of the sports clubs includes goods with positive externalities such as youth promotion, integration, crime prevention, and health (Handy and Brudney 2007; Ulseth 2004; Vos et al. 2012). Pertaining to such externalities, Preston (1988, p. 496) assumes that organizations which generate "higher social benefits will receive more donations." Social benefits can affect different population groups, e.g., children and adolescents, older people, and people with a migration background. Therefore, the second hypothesis is formulated as follows:

H2 Caring for the youth, for migrants, and for the elderly positively influences the reception of donations.

A further positive effect of nonprofit organizations is the creation of social capital (Steinberg 2006). Nonprofit organizations are able to create "a lively and pleasant social environment" (Ben-Ner and Gui 2003, p. 7) which has the character of a collective good. The creation of social capital by community sports organizations and voluntary sports clubs has been documented in various studies (e.g., Coalter

2007; Doherty and Misener 2008; Vos et al. 2012). Moreover, sports clubs particularly put high value on social integration and aim at creating an atmosphere of community, companionship, and conviviality (Lamprecht et al. 2012; Ulseth 2004). These aspects are covered in the third hypothesis:

H3 Caring for core social values positively influences the reception of donations.

4.3.2 Contract failure theory

In addition to the public goods theory, a further approach to explain the existence of nonprofit organizations and the behavior of people donating to nonprofits is the contract failure theory, also known as trust-related theory (Hansmann 1980). Hansmann (1987) partly criticizes the public goods theory in its original form as he states that some services of nonprofits are "difficult to characterize as public goods in the usual sense" (Hansmann 1987, p. 29). Thereby, the rationale that nonprofits rather than for-profit organizations fulfill the demand for such goods is unclear. In response to these shortcomings he argues that nonprofit organizations rather exist in the marketplace due to information asymmetries and contract failure. "Contract failure occurs when the customer does not have sufficient information to evaluate the quality or competitive value of goods and services available in the marketplace" (Grønbjerg 1993, p. 18). Moreover, the nondistribution constraint does not allow for enrichment of staff as it prevents "excessive executive compensation and selfserving dealings" (Ben-Ner and Gui 2003, p. 5). Thereby, nonprofits are more trustworthy than for-profits in situations of information asymmetries. In other words, nonprofit organizations are "less prone to contract failure than for-profit organizations because they cannot gain from misleading customers" (Young and Steinberg 1995, p. 35). This is particularly important for potential donors since they are assured that their given money cannot be misused for enrichment of staff. Thereby, the contract failure theory provides a rationale for nonprofits receiving donations.

Pertaining to nonprofit sports clubs, the contract failure theory leads to certain assumptions. First, the clubs receive donations because people giving money trust the clubs to use the money thoughtfully and for the proposed purpose. As described in the literature review, research has shown that donors prefer to give their money to finance programs of nonprofit institutions, but not overhead costs (Rooney 2007). For nonprofit sports clubs, this would mean that the clubs receive donations mainly for their core product, i.e., sports offers, but not for administrative expenses, e.g., paid staff. Thus, if nonprofit sports clubs only rely on volunteers and have no professional structures, i.e., paid staff, donors would be more willing to donate to this kind of clubs. Hence, the fourth hypothesis is derived:

H4 Employment of paid staff in nonprofit sports clubs negatively influences the reception of donations.

Going along with donors trusting nonprofits that their money is used for the proposed purpose, i.e., the core product of nonprofit sports clubs, the study of Enjolras (2002) has to be considered. He states that voluntary sports organizations are not very professionalized, but they are expected to become more and more commercialized. If nonprofit organizations increase their commercial activities, this might lead to a decrease in donations. That is, if donors regard increased commercial activities as a failure in reaching the organizational mission, then they might have an aversion to commercial activities and cut their donations. Based on the contract failure theory and the assumptions of Enjolras (2002), the last hypothesis is formulated as follows:

H5 Being commercially oriented as a nonprofit sports club has a negative impact on the reception of donations.

4.4 Method

4.4.1 Data collection

This study is based on primary data from the Sport Development Report which is a nationwide online survey of nonprofit sports clubs in Germany. The project is financed by the Federal Institute of Sports Sciences (BISp), the German Olympic Sports Confederation (DOSB), and the 16 regional sports confederations of Germany. The project started in 2005 with the first wave and has until now continued to wave four being finalized and wave five just being in the works. Thus, the project is designed as a panel study with the clubs being surveyed every 2 years. The sports confederations of all 16 federal states in Germany provide the email addresses of the clubs. From the existing 91,000 clubs in Germany (DOSB 2012), an increasing number could be reached via email over the years. In 2005, the number of valid email addresses amounted to 18,085, in 2007 the number grew to 37,206, further to 58,069 in 2009 and in 2011, in the fourth wave, 67,708 email addresses were provided by the confederations. In all conducted waves, the clubs received an invitation email containing a personalized link to the online questionnaire. Each survey period lasts for approximately 3 months. Analogous to the provided email addresses, the sample sizes have increased over the years (2005: n=3,731; 2007: n=13,068; 2009: n=19,345; 2011: n=21,998).

The survey questionnaire typically consists of a set of core questions (e.g., members, sports offerings, organizational problems, volunteers, finances) and some additional questions that address current issues (e.g., demographic change, doping, cooperation with schools, migrant integration, paid staff, club philosophy). For this paper, only data from the third (2009) and fourth wave (2011) have been used because the relevant club philosophy questions were only asked in those waves. Thus, data from the third and fourth wave were pooled in one data set, creating an unbalanced panel data set with two measuring points. The pooled data set rather than a cross-sectional data set from one of the waves was chosen to obtain a larger sample size and thereby get more precise estimators and test statistics (Wooldridge 2013). Overall, the pooled data set consists of n=41,343 cases but due to missing values the number of cases included in the analyses amounts to n=8,680 for models 1a, 1b, 3a, and 3b and to n=6,391 for models 2a and 2b.

4.4.2 Measures and variables

The variables that have been used for the analyses are displayed in Table 4.1. The clubs have been asked to state whether they receive donations (*dummy_donations*). Moreover, they were asked to give the amount of money they received from donations. For this study, the total logged donations were used (*LN_donations*). Using the natural logarithm instead of the total values is common in financial studies (e.g., Carroll and Stater 2009). Moreover, the share of donations in relation to total revenues (*share_donations*) was integrated. The three described variables serve as the dependent variables in this study.

To answer the overall research question and the stated hypotheses, various independent variables were integrated in the models. To give an answer to hypothesis one, two variables are included. The first variable is an objective measure and asks whether the club has squad athletes at its disposal (*squad_athletes*). The second variable is one item of the club philosophy which is measured on a five-point Likert's scale (from 1 = do not agree at all to 5 = totally agree). Items of the club philosophy display the goals and mission of the sports clubs and have previously been used as subjective measures in different sports clubs studies (e.g., Wicker et al. 2014). The item applied here asks to what extent the club is engaged in the promotion of young talent (*phil_youngtalent*). Both variables are related to elite sports since the existence of squad athletes and the promotion of young talent are necessary conditions for a club being involved in elite sports.

The second hypothesis is examined with four more items of the club philosophy, namely to what extent the club is engaged in youth work (*phil_youth*), to what extent the club offers sports for people with a migration background (*phil_migration*) and for older people (*phil_elderly*), and to what extent the club is committed to

the health sport sector (*phil_health*). The first three variables clearly show the relation to the three groups which are addressed in the second hypothesis. The variable *phil_health* is included since it is assumed that health sport programs are particularly suitable for older people and therefore additionally serves for measuring "caring for the elderly." In addition to the named subjective measures, the share of children and adolescents in relation to all members (*share_youth*) and the share of seniors, i.e., people older than 60, in relation to all members (*share_elderly*) are added as objective measures for testing hypothesis two. It is assumed that clubs with a higher share of youth and seniors have special offers for these two target groups and thereby particularly care about them.

Table 4.1 Overview of variables.

Variable	Description	Scale
Dependent variables		
dummy_donations	Revenues from donations (1=*yes*, 0=*no*)	Dummy
LN_donations	Natural logarithm of donations	Metric
share_donations	Share of donations relative to total revenues	Metric
Independent variables		
squad_athletes	Club has squad athletes (1=*yes*, 0=*no*)	Dummy
phil_youngtalent	Our club is highly engaged in the promotion of young talent (1=*do not agree at all* to 5=*totally agree*)	Ordinal
share_youth	Share of children and adolescents in relation to all members (in %)	Metric
phil_youth	Our club is highly engaged in youth work (1=*do not agree at all* to 5=*totally agree*)	Ordinal
phil_migration	Our club offers sports for people with a migration background (1=*do not agree at all* to 5=*totally agree*)	Ordinal
share_elderly	Share of seniors (over 60) in relation to all members (in %)	Metric
phil_elderly	Our club offers sports for older people (1=*do not agree at all* to 5=*totally agree*)	Ordinal
phil_health	Our club is committed to the health sport sector (1=*do not agree at all* to 5=*totally agree*)	Ordinal
exp_events	Expenditure for nonsports-related events (1=*yes*, 0=*no*)	Dummy
phil_conviviality	Our club sets high value on companionship and conviviality (1=*do not agree at all* to 5=*totally agree*)	Ordinal

continued on next page...

Table 4.1 Continued

Variable	Description	Scale
exp_admin	Administrative costs and administrative personnel (1=*yes*, 0=*no*)	Dummy
phil_volunteers	Our club should be run exclusively by volunteers (1=*do not agree at all* to 5=*totally agree*)	Ordinal
phil_commercial	Our club follows the sports supply of commercial sports providers (1=*do not agree at all* to 5=*totally agree*)	Ordinal
Control variables		
own_facilities	Club is in possession of own sport facilities (1=*yes*, 0=*no*)	Dummy
public_facilities	Club uses public facilities (1=*yes*, 0=*no*)	Dummy
members	Total number of members in the club	Metric
members_sq	Members squared	Metric
sports	Total number of sports provided by the club	Metric
sports_sq	Sports squared	Metric
sport	Type of sport provided by the club (ten most frequent sports: gymnastics, football, volleyball, table tennis, tennis, track and field, shooting, badminton, equestrian, dancing; 1=*yes*, 0=*no*)	Dummy
year	Year of survey (2009=0; 2011=1)	Dummy

Transmitting social values and focusing on community and conviviality is captured in hypothesis three and measured with two variables. It is assumed that clubs which organize, next to the sport offerings, also events which are not related to sports, but rather to social aspects (e.g., Christmas celebrations, carnival) are able to receive higher amounts of donations (cf., Preston 1988). Thus, the first variable measures whether the club has expenses for nonsport-related events (*exp_events*). Moreover, a club philosophy item once again serves as a subjective measure by stating to what extent the club sets value on companionship and conviviality (*phil_conviviality*).

Professional structures in nonprofit sports clubs are assumed to negatively influence the reception of donations (H4). This is measured by two variables: First, with the objective measure whether clubs have expenditures for administrative costs and administrative personnel as a proxy for paid staff (*exp_admin*). Second, with a subjective measure from the club philosophy, namely in how far the club agrees to run the club exclusively by volunteers (*phil_volunteers*). Alike professional structures, commercial activities are expected to have a negative impact on donations (H5). This last hypothesis shall be answered by making use of the club philosophy item "Our club follows the sports supply of commercial sports providers" (*phil_commercial*).

In addition to the described independent variables, further control variables are included. Since the infrastructure of the club might play a role for donors because adequate sport offerings and social gatherings are only possible if adequate facilities exist, measures for the possession of own sport facilities (*own_facilities*) and the use of public facilities (*public_facilities*) are included. Moreover, since research has shown that organizational size is an important measure in sports clubs studies (e.g., Koski 1995), this study controls for club size, measured by total members (*members*) as well as its squared term (*members_sq*). In addition to membership numbers, the number of sports offered by the club (*sports*) and again the squared term (*sports_sq*) is included. The reason for including the squared terms is to capture quadratic effects of size in terms of members and sports that have been documented in previous research on sports clubs (e.g., Wicker et al. 2014). In the three models labeled with a "b" as appendix, instead of the two variables *sports* and *sports_sq*, the ten most frequent named sports from the survey are used for the analyses. The variables are included in the form of dummies to control for possible sport-specific effects. The study further controls for the year of the survey (*year*) to capture effects that might be ascribed to certain events (e.g., financial crisis) happening in the years of the surveys.

4.4.3 Data analysis

Before starting the analyses, the pooled data set was created by matching the data and integrating waves three and four into one vertical panel data set. Only variables that had been surveyed in the same way in both waves were integrated in the analyses. First, descriptive statistics were computed to give an overview of the means and standard deviations of the included variables. To answer the overall research question, different regression analyses were run. Six regression models with three different dependent variables relating to donations were estimated to check the robustness of the models. The regression models are of the following general form:

$$\text{donations} = \beta_0 + \beta_1\ \text{squad\_athletes} + \beta_2\ \text{phil\_youngtalent} + \beta_3\ \text{share\_youth} + \beta_4\ \text{phil\_youth} + \beta_5\ \text{phil\_migration} + \beta_6\ \text{share\_elderly} + \beta_7\ \text{phil\_elderly} + \beta_8\ \text{phil\_health} + \beta_9\ \text{exp\_events} + \beta_{10}\ \text{phil\_conviviality} + \beta_{11}\ \text{exp\_admin} + \beta_{12}\ \text{phil\_volunteers} + \beta_{13}\ \text{phil\_commercial} + \beta_{14}\ \text{own\_facilities} + \beta_{15}\ \text{public\_facilities} + \beta_{16}\ \text{members} + \beta_{17}\ \text{members\_sq} + \beta_{18}\ \text{sports} + \beta_{19}\ \text{sports\_sq} + \beta_{20}\ \text{year} + \varepsilon.$$

In models 1b, 2b, and 3b, the variables *sports* and *sports_sq* were replaced by the ten sport dummy variables to avoid collinearity issues. The first two estimation models (1a and 1b) are logistic regressions with the dependent variable *dummy_donations*. In a first step, the odds ratios were estimated and supplemented

by the marginal effects in a second step. The marginal effects were computed as they give more precise information about the probability of receiving donations. Models 1a and 1b are reported with robust standard errors. Models 2a and 2b are log-linear regression models, whereas models 3a and 3b are linear regression models (OLS models). Heteroskedasticity was tested for by using the Breusch-Pagan test. For models 2a and 2b with the dependent variable *LN_donations*, the null hypothesis of homoskedasticity could be confirmed, whereas for models 3a and 3b, it was rejected. Thus, models 3a and 3b with the dependent variable *share_donations* were estimated with robust standard errors (White 1980). Although pooled data with two measuring points were used for the analyses, no typical panel data methods (fixed or random effects) were applied. This is due to the fact that many clubs have only participated in one of the two waves which would have led to a large loss of clubs. Thus, it was decided to treat the data as pooled cross sections despite the drawback of possible unobserved heterogeneity. Also, it does not seem feasible to add thousands of coefficients to the regression equation (e.g., in a fixed-effects procedure).

4.5 Results and discussion

The summary statistics are displayed in Table 4.2. The table shows that 71% of the clubs receive donations and that revenues from donations make up on average 8.8% of all revenues the clubs receive. These results underline the importance of donations for nonprofit sports clubs. Squad athletes are present in 12.4% of the clubs which allows the clubs to offer elite sport. One-fourth of the members are children and adolescents, and 17.3% are older than 60. Nearly half of the clubs (48.7%) have expenditures for nonsport events and 59.1% employ paid staff. Regarding the club philosophy items, the highest value is reached for the statement that the club sets high value on companionship and conviviality (M=4.295), directly followed by offering sports for people with a migration background (M=4.291). These results underpin that nonprofit sports clubs particularly care for social values and social integration and are in accordance with prior studies (cf., Ulseth 2004). The aim to run the club only by volunteers also reaches a relatively high average value (M=4.220) which applies to offering sports for the elderly (M=4.108) and being involved in youth work (M=4.027) as well. Being committed to the health sport sector reaches an average of M=3.032. The results further show that being engaged in young talent promotion (M=2.768) and following the supply of commercial sports providers (M=2.054) reach lower values. Thus, the majority of nonprofit sports clubs clearly want to distance themselves from for-profit sports providers. Roughly half of all clubs are in possession of own sport facilities, and 60.8% also use public facilities. A club averagely consists of 358 members, and the number of sports offered on

average amounts to 3.4. The most often provided types of sports are gymnastics (30.4%) and soccer (28.5%).

Table 4.2 Descriptive statistics.

Variable	Mean	SD
dummy_donations	0.710	0.453
LN_donations	7.197	1.750
share_donations	8.819	13.129
squad_athletes	0.124	0.330
phil_youngtalent	2.768	1.265
share_youth	25.796	20.763
phil_youth	4.027	1.172
phil_migration	4.291	0.896
share_elderly	17.348	17.139
phil_elderly	4.108	1.090
phil_health	3.032	1.292
exp_events	0.487	0.499
phil_conviviality	4.295	0.827
exp_admin	0.591	0.492
phil_volunteers	4.220	1.034
phil_commercial	2.054	1.014
own_facilities	0.510	0.499
public_facilities	0.608	0.488
members	358.37	1,147.49
members_sq	1,445,113	93,000,000
sports	3.394	4.117
sports_sq	28.465	78.024
badminton	0.100	0.300
football (soccer)	0.285	0.451
track and field	0.126	0.332
equestrian	0.093	0.291
shooting	0.107	0.309
dancing	0.093	0.290
tennis	0.137	0.343
table tennis	0.164	0.370
gymnastics	0.304	0.460
volleyball	0.166	0.372
year	0.532	0.499

The results of the regression analyses are displayed Table 4.3 for the logistic regressions and Table 4.4 for the log-linear and linear regression models.

Table 4.3 Summary of logistic regression models.

	Model 1a: dummy_donations			Model 1b: dummy_donations		
Variables	Odds	*z*	Marginal effects	Odds	*z*	Marginal effects
constant	0.208	-6.56***		0.210	-6.43***	
squad_athletes	1.362	3.05**	0.049	1.442	3.62***	0.056
phil_youngtalent	1.152	5.17***	0.024	1.155	5.24***	0.024
share_youth	1.002	0.98	0.000	1.003	1.58	0.001
phil_youth	1.258	7.54***	0.039	1.269	7.81***	0.040
phil_migration	1.063	2.02*	0.010	1.044	1.40	0.007
share_elderly	1.003	2.02*	0.001	1.006	3.17**	0.001
phil_elderly	0.882	-4.51***	-0.021	0.918	-2.94**	-0.014
phil_health	0.922	-3.28**	-0.014	0.939	-2.53*	-0.010
exp_events	1.517	7.61***	0.070	1.504	7.42***	0.068
phil_conviviality	1.082	2.36*	0.013	1.062	1.78	0.010
exp_admin	1.697	9.54***	0.092	1.739	9.89***	0.095
phil_volunteers	1.025	0.80	0.004	1.017	0.54	0.003
phil_commercial	0.934	-2.28*	-0.011	0.923	-2.69**	-0.013
own_facilities	2.176	12.10***	0.129	2.222	11.80***	0.131
public_facilities	1.483	6.12***	0.068	1.384	4.77***	0.055
members	1.001	5.02***	0.000	1.001	4.23***	0.000
members_sq	0.999	-5.30***	-0.000	0.999	-4.44***	-0.000
sports	1.090	3.93***	0.015	-	-	-
sports_sq	0.995	-4.51***	-0.001	-	-	-
badminton	-	-	-	1.059	0.46	0.009
football (soccer)	-	-	-	1.831	7.06***	0.092
track and field	-	-	-	1.564	3.48**	0.067
equestrian	-	-	-	0.939	-0.53	-0.011
shooting	-	-	-	0.892	-1.21	-0.020
dancing	-	-	-	0.895	-0.98	-0.019
tennis	-	-	-	0.886	-1.20	-0.021
table tennis	-	-	-	1.238	2.32*	0.034
gymnastics	-	-	-	0.892	-1.25	-0.019
volleyball	-	-	-	0.869	-1.42	-0.024
year	0.900	-1.95	-0.018	0.897	-2.00*	-0.018
Pseudo R^2	0.146			0.153		
Wald chi^2	1,073.40			1,112.95		
p	<.001***			<.001***		

* p<0.05; ** p<0.01; *** p<0.001; robust standard errors reported.

Very clear and robust results are obtained relating to the first hypothesis which states that being involved in elite sports and talent promotion has a positive impact on the reception of donations. This hypothesis can be confirmed since all six models show positive effects for the two variables which were used to test the hypothesis. The effects of the variable *squad_athletes* are significant in all models but one (model 3a), and the effects for the variable *phil_youngtalent* are even significant in all six models. The marginal effects in the logistic regression models 1a and 1b show that if a club turns from not having squad athletes to having squad athletes, the probability of receiving donations rises by 4.9%, respectively, 5.6%. Moreover, having squad athletes and being engaged in the promotion of young talent not only increase the probability of receiving donations, but also positively influence the amount of donations a club receives as well as the share of donations relative to all revenues of the clubs. Thus, the results confirm that promoting young talent and having squad athletes lead to the public good of national sporting success and thereby civic pride (Gratton and Taylor 2000). This is reflected by people donating to nonprofit sports clubs which offer elite sports. The donors are giving money because they aim at securing the level of the public good output of the club in the form of national sporting success (cf., Anheier 2005; Kingma 1997).

Pertaining to the second hypothesis which argues that sports clubs are more likely to receive donations if they particularly care for the youth, for migrants, and for the elderly cannot be confirmed in all parts. Therefore, the results for the three target groups addressed in H2 are discussed successively. Regarding the youth, one of the two variables employed to test this part of the hypothesis, namely the subjective measure *phil_youth*, displays positive and significant results in all six models. This shows that donors value clubs which aim at caring for young people because positive externalities such as youth promotion and crime prevention can arise (Handy and Brudney 2007; Preston 1988). On the other hand, the share of youth in relation to all members of the club shows positive, but not significant results for models 1a, 1b, 2a, and 2b. However, significant but negative coefficients are reported for models 3a and 3b with the dependent variable *share_donations*. This means that the share of youth within a club does not have an impact on the reception and the level of donations, but negatively influences the share of donations relative to total revenues. The latter could be explained by complex relationships between income categories, as found by Sokolowski (2013). Clubs with a higher share of youth might, for example, receive more public subsidies which would in turn lead to higher shares of subsidies and thereby lower shares of other income categories like donations. Another explanation could be that donors of sports clubs are at the same time members of the respective club. Thus, it can be assumed that they are not giving with pure altruism, but rather because they also receive private benefit from donating to the club (Andreoni 1989; Kingma 1997). From prior research on

demographic attributes of donors (in this case age), it can be derived that children and adolescents are less likely to be donors (Rooney 2007). A higher share of youths within the clubs would, in situations of impure altruism, consequently lead to lower shares of donations.

Pertaining to the second part of H2, caring for migrants, the results of the six models again do show ambiguous effects. The variable *phil_migration* was applied to test this part of H2. In model 1a, a positive and significant effect can be detected which shows that caring for migrants positively influences the reception of donations. Although the coefficient for this variable is also positive in model 1b, it is not significant. This might be ascribed to the inclusion of the sport dummies in this model. The dummy variable for soccer in model 1b shows a positive and highly significant effect, meaning that clubs providing soccer are more likely to receive donations. The probability to receive donations increases by 9.2% when the club offers soccer. This effect could overlap the migration effect since the share of migrants in soccer clubs is averagely higher than in clubs without soccer offerings (Stahl et al. 2011). On the contrary to models 1a and 1b, caring for migrants has negative and significant effects in models 2a and 2b. Thus, donors seem to value the inclusion of migrants in the clubs, but they are not willing to spend more money. This finding is only partly in accordance with Preston (1988) who states that organizations that produce social benefits receive higher levels of donations. The level of donations due to integrating migrants does not rise according to the underlying study, but the probability of receiving donations at all goes up.

The last part of hypothesis two addresses the elderly. The three variables used to test this part of H2 show nearly consistent results. The philosophy item that measures the level of sports offers for the elderly shows negative and significant results in all six models. Pertaining to providing health sport offers, also negative and significant results are detected for models 1a, 1b, and 2a. Significant negative results are found for the share of older people in relation to all members for models 2a, 3a, and 3b. The only positive and significant results are found for the share of the elderly in models 1a and 1b. The latter finding could again be explained by donors being members at the same time. Since donating is positively correlated with age (Rooney 2007), a higher share of older people would explain these results. The negative effects on the other hand suggest that caring for older people and offering health sports programs do not lead to receiving higher amounts of donations. This could be due to the fact that particularly health sport is not yet regarded a core product of nonprofit sports clubs since commercial sport providers offer such programs as well. Thereby, the rationale for supporting nonprofit sports clubs might not be given for donors (Hansmann 1987). Overall, hypothesis two can only partially be supported: Caring for the youth is predominantly found to have a positive impact

on receiving donations, whereas offering sports offer for the elderly rather shows negative effects. The effects for aiming at integrating migrants are mixed.

Hypothesis three is clearly supported by the results of all six models. Both variables, having expenditures for nonsport events as well as putting high value on companionship and conviviality, show positive and predominantly significant results. Particularly, staging nonsport events show highly significant effects for receiving donations and also for the amount of donations. The marginal effects in the logistic regression models show that turning from not staging nonsport events to staging such events, the probability of receiving donations rises by 7%. Moreover, donors value the attitude of clubs to care for social values by aiming at providing an atmosphere of companionship and conviviality. These findings are in accordance with prior research (Lamprecht et al. 2012; Ulseth 2004) and theoretical assumptions (Ben-Ner and Gui 2003; Steinberg 2006).

Hypothesis four (H4) that states that employing paid staff has a negative impact on donations has to be rejected. The results of the two incorporated variables to test this hypothesis show the direct opposite of what was expected: Having administrative expenses as a proxy for paid staff is positive and significant in four of six models. On the other hand, the philosophy item stating that the club should only be run by volunteers only shows significant, but negative results in models 2a and 2b. Interestingly, employing paid staff in nonprofit sports clubs has a positive impact on receiving donations. This means that donors do not mistrust the clubs when employing paid staff, but they seem to value the professional structures. This could be due to the fact that professionally run clubs are more likely to follow the main goals and mission of the club which is typically valued by donors, as prior research has shown (Herman and Rendina 2001).

The last hypothesis is that being commercially oriented has a negative impact on the reception of donations for nonprofit sports clubs. The six models show consistent results in regard to H5: The variable measuring the level of commercial orientation of the clubs shows negative and significant coefficients in each model. Thus, H5 can be confirmed and demonstrates that donors value clubs which concentrate on reaching their original goals and mission (Enjolras 2002; Herman and Rendina 2001), namely providing affordable sports offers and caring for social benefits (Vos et al. 2012). However, it needs to be considered that a certain level of commercialization (e.g., revenues from sales, sponsoring) can also help to crosssubsidize the key products of nonprofit organizations (Enjolras 2002).

Table 4.4 Summary of OLS regression models.

	Model 2a: LN_donations		Model 2b: LN_donations		Model 3a: share_donations		Model 3b: share_donations	
Variables	Coef.	t	Coef.	t	Coef.	t	Coef.	t
Constant	6.046	35.78***	5.918	34.92***	8.383	6.33***	7.426	5.59***
squad_athletes	0.276	4.75***	0.372	6.44***	0.929	1.95	1.231	2.58*
phil_youngtalent	0.151	8.27***	0.174	9.61***	0.791	5.37***	0.823	5.53***
share_youth	0.001	0.82	0.001	0.73	-0.033	-2.87**	-0.034	-2.85**
phil_youth	0.176	7.82***	0.174	7.87***	0.621	3.55***	0.649	3.70***
phil_migration	-0.087	-3.76***	-0.101	-4.37***	-0.121	-0.68	-0.164	-0.93
share_elderly	-0.004	-2.64**	0.000	0.04	-0.058	-5.95***	-0.042	-4.23***
phil_elderly	-0.161	-8.24***	-0.083	-4.13***	-1.188	-6.96***	-0.810	-4.60***
phil_health	-0.043	-2.36*	-0.028	-1.58	0.013	0.09	0.042	0.30
exp_events	0.159	4.23***	0.156	4.20***	0.291	1.03	0.182	0.65
phil_conviviality	0.077	3.23**	0.049	2.09*	0.554	3.08**	0.446	2.48*
exp_admin	0.185	4.55***	0.200	5.02***	0.349	1.12	0.413	1.34
phil_volunteers	-0.070	-3.42**	-0.082	-4.08***	0.288	1.73	0.211	1.28
phil_commercial	-0.044	-2.13*	-0.074	-3.67***	-0.349	-2.18*	-0.432	-2.73**
own_facilities	0.499	12.20***	0.417	9.80***	-0.156	-0.50	-0.084	-0.26
public_facilities	0.215	4.67***	0.156	3.29**	1.533	4.36***	1.212	3.33**
members	0.001	19.07***	0.001	19.17***	-0.002	-5.29***	-0.002	-6.08***
members_sq	-0.000	-15.39***	-0.000	-14.79***	0.000	3.48**	0.000	3.98***
sports	0.082	6.71***	–	–	0.040	0.47	–	–
sports_sq	-0.004	-7.09***	–	–	-0.001	-0.29	–	–

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Table 4.4 Continued.

	Model 2a: LN_donations		Model 2b: LN_donations		Model 3a: share_donations		Model 3b: share_donations	
Variables	Coef.	t	Coef.	t	Coef.	t	Coef.	t
badminton	–	–	-0.036	-0.53	–	–	-0.435	-0.88
football (soccer)	–	–	0.711	14.49***	–	–	3.395	8.49***
track and field	–	–	0.036	0.57	–	–	1.801	3.41**
equestrian	–	–	0.386	4.71***	–	–	1.777	2.47*
shooting	–	–	-0.264	-4.10***	–	–	-1.212	-2.67**
dancing	–	–	-0.122	-1.82	–	–	-1.765	-4.28***
tennis	–	–	0.057	1.03	–	–	-1.972	-5.41***
table tennis	–	–	0.088	1.62	–	–	1.064	2.62**
gymnastics	–	–	-0.002	-0.04	–	–	-1.482	-3.19**
volleyball	–	–	-0.081	-1.32	–	–	-0.603	-1.41
year	0.032	0.87	0.031	0.84	-0.478	-1.69	-0.479	-1.71
R^2	0.283		0.307		0.037		0.053	
F	127.21		102.41		19.52		19.13	
p	<.001***		<.001***		<.001***		<.001***	

*p<0.05***; **p<0.01; ***p<0.001; displayed are the unstandardized coefficients; robust standard errors reported in models 3a and 3b

Apart from the independent variables used to test the five hypotheses, the integrated control variables show some interesting results. Possessing own facilities and using public facilities positively influence the reception of donations as well as the level of donations. This implies that donors value an adequate infrastructure of the clubs. Moreover, size plays a role in regard to receiving donations. This applies both to club size as well as number of sports provided. Larger clubs and clubs with a bigger number of sports offerings are more likely to receive donations. However, the square terms in models 1a and 2a show that there is a saturation effect, meaning that at a certain level, donations are not growing any more with increasing size. The sport dummies show mixed effects over the three models. However, soccer has a positive effect in all three models indicating that clubs which have soccer offerings are more likely to receive donations. This might be ascribed to soccer being the most popular sport in Germany. However, also track and field, table tennis as well as equestrian sports show positive effects in two models. On the other hand, shooting clubs are less likely to receive donations as indicated by the results of models 2b and 3b. It could be that shooting clubs are regarded as less trustworthy. This assumption is supported by another study which finds that shooting clubs have generally bigger problems to cooperate with schools since the sport of shooting is regarded as not adequate for such cooperations (Breuer and Feiler 2013).

4.6 Conclusion

This study investigated factors influencing donations for nonprofit sports clubs in Germany using an unbalanced panel data set. Previous research in the field of nonprofit finance has mainly concentrated on various income categories and possible interaction effects. However, no research has so far examined factors influencing donations in the field of nonprofit sports clubs. Thus, this study advances the literature in the field of nonprofit sports organizations with regard to financial issues. The results show that particularly the provision of elite sport and the promotion of young talents have a positive impact on receiving donations. Moreover, sports clubs caring for social aspects, companionship, and conviviality as core values are able to generate higher levels of donations. The same is true for professionally run clubs that employ paid staff. On the other hand, a commercial orientation was found to be a negative factor.

The findings of this study allow deriving some implications for the management of nonprofit sports clubs. To generate donations, the clubs should increase the level of young talent recruitment and promotion and should try to qualify athletes to become members of a squad. A certain level of professionalization, i.e., not only relying on voluntary work but also employing paid staff, raises the probability of receiving money from potential donors. Moreover, apart from focusing on sport-

related offerings, concentrating on core values of nonprofit sports clubs, i.e., social inclusion and social capital (Vos et al. 2012), help the clubs to expand the level of donations. On the other hand, in the light of receiving donations, clubs should avoid to become increasingly commercialized since donors seem to fear that the clubs could thereby lose their focus on the main club mission. Nevertheless, revenues from commercial activities can also be used to cross-subsidize the main product of the clubs.

This leads to possible directions for future research. In regard to the ongoing commercialization of the nonprofit sector as described by Weisbrod (1998), it would be interesting to investigate how a commercial orientation affects other income sources of nonprofit sports clubs and whether interaction effects exist. Moreover, the limitations of this study can also guide the way to future research. This study was not designed as a longitudinal study and therefore has to deal with the shortcomings of cross-sectional data and OLS regressions. However, since the Sport Development Report has a panel design, it will be possible to apply panel data methods as soon as the next waves are finished. Apart from Germany, it would be interesting to investigate determinants of donations for nonprofit sports clubs in other countries with similar sport structures to test the generalizability of the results.

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4.7 References

Allison, M. (2001). *Sports clubs in Scotland*. Edinburgh: SportScotland.

Andreoni, J. (1989). Giving with impure altruism: Applications to charity and Ricardian equivalence. *The Journal of Political Economy, 97*(6), 1447-1458.

Andreoni, J. (1990). Impure altruism and donations to public goods: A theory of warm-glow giving. *The Economic Journal, 100*(401), 464-477.

Andreoni, J., & Payne, A. A. (2011). Is crowding out due entirely to fundraising? Evidence from a panel of charities. *Journal of Public Economics, 95*(5–6), 334-343.

Anheier, H. K. (2005). *Nonprofit organizations. Theory, management, policy*. London: Routledge.

Ashley, R., Ball, S., & Eckel, C. (2010). Motives for giving: A reanalysis of two classic public goods experiments. *Southern Economic Journal, 77*(1), 15-26.

Ben-Ner, A., & Gui, B. (2003). The theory of nonprofit organizations revisited. In H. K. Anheier & A. Ben-Ner (Eds.), *The study of the nonprofit enterprise. Theories and approaches* (pp. 3-26). New York: Kluwer Academic/Plenum Publishers.

Breuer, C., & Feiler, S. (2013). *Sport Development Report 2011/2012. Analysis of the situation of sports clubs in Germany. Abbreviated version*. Cologne: Sportverlag Strauß.

Breuer, C., & Wicker, P. (2011). *Sport Development Report 2009/2010. Analysis of the situation of sports clubs in Germany. Abbreviated version*. Cologne: Sportverlag Strauß.

Carroll, D. A., & Stater, K. J. (2009). Revenue diversification in nonprofit organizations: Does it lead to financial stability? *Journal of Public Administration Research and Theory, 19*(4), 947-966.

Chang, C. F., & Tuckman, H. P. (1994). Revenue diversification among non-profits. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations, 5*(3), 273-290.

Coalter, F. (2007). Sports clubs, social capital and social regeneration: 'Ill-defined interventions with hard to follow outcomes'? *Sport in Society, 10*(4), 537-559.

Cordes, J., & Sansing, R. (2007). Institutional philanthropy. In D. R. Young (Ed.), *Financing nonprofits. Putting theory into practice* (pp. 45-68). Lanham, MD: AltaMira Press.

Doherty, A., & Misener, K. (2008). Community sport networks. In M. Nicholson & R. Hoye (Eds.), *Sport and social capital* (pp. 113-141). Oxford: Butterworth-Heinemann.

DOSB. (2012). *Bestandserhebung 2012 [Annaual Survey 2012].* Frankfurt: Deutscher Olympischer Sportbund [German Olympic Sports Confederation].

Enjolras, B. (2002). The commercialization of voluntary sport organizations in Norway. *Nonprofit and Voluntary Sector Quarterly, 31*(3), 352-376.

Fischer, R. L., Wilsker, A., & Young, D. R. (2011). Exploring the revenue mix of nonprofit organizations: Does it relate to publicness? *Nonprofit and Voluntary Sector Quarterly, 40*(4), 662-681.

Frumkin, P., & Keating, E. K. (2011). Diversification reconsidered: The risks and rewards of revenue concentration. *Journal of Social Entrepreneurship, 2*(2), 151-164.

Gratton, C., Liu, D., Ramchandani, G., & Wilson, D. (2012). *The global economics of sport.* Oxon: Routledge.

Gratton, C., & Taylor, P. (2000). *Economics of sport and recreation.* London: E & FN Spon.

Grønbjerg, K. A. (1991). How nonprofit human service organizations manage their funding sources: Key findings and policy implications. *Nonprofit Management and Leadership, 2*(2), 159-175.

Grønbjerg, K. A. (1993). *Understanding nonprofit funding. Managing revenues in social services and community development organizations.* San Francisco: Jossey-Bass Publishers.

Gumulka, G., Barr, C., Lasby, D., & Brownlee, B. (2005). *Understanding the capacity of sports & recreation organizations.* Toronto: Imagine Canada.

Handy, F., & Brudney, J. L. (2007). When to use volunteer labor resources? An organizational analysis for nonprofit management. *Vrijwillige Inzet Onderzocht, 4*, 91-100.

Hansmann, H. (1980). The role of nonprofit enterprise. *The Yale Law Journal, 89*(5), 835-902.

Hansmann, H. (1987). Economic theories of nonprofit organization. In W. W. Powell (Ed.), *The nonprofit sector: A research handbook* (pp. 27-42). New Haven: Yale University Press.

Herman, R. D., & Rendina, D. (2001). Donor reactions to commercial activities of nonprofit organizations: An American case study. *Voluntas, 12*(2), 157-169.

James, E. (1990). Economic theories of the nonprofit sector: A comparative perspective. In H. K. Anheier & W. Seibel (Eds.), *The third sector: Comparative studies of nonprofit organizations* (pp. 21-29). Berlin: de Gruyter.

Kearns, K. (2007). Income portfolios. In D. R. Young (Ed.), *Financing nonprofits. Putting theory into practice* (pp. 291-314). Lanham, MD: AltaMira Press.

Khanna, J., & Sandler, T. (2000). Partners in giving: The crowding-in effects of UK government grants. *European Economic Review, 44*(8), 1543-1556.

Kingma, B. R. (1989). An accurate measurement of the crowd-out effect, income effect, and price effect for charitable contributions. *Journal of Political Economy, 97*(5), 1197-1207.

Kingma, B. R. (1997). Public good theories of the non-profit sector: Weisbrod revisited. *Voluntas, 8*(2), 135-148.

Koski, P. (1995). Organizational effectiveness of Finnish sports clubs. *Journal of Sport Management, 9*(1), 85-95.

Lamprecht, M., Fischer, A., & Stamm, H. (2012). *Die Schweizer Sportvereine: Strukturen, Leistungen, Herausforderungen [Swiss sports clubs: Structures, offers, challenges].* Zürich: Seismo Verlag.

Lasby, D., & Sperling, J. (2007). *Understanding the capacity of Ontario sports and recreation organizations.* Toronto, ON: Imagine Canada.

Marudas, N. P., & Jacobs, F. A. (2004). Determinants of charitable donations to large U.S. higher education, hospital, and scientific research NPOs: New evidence from panel data. *Voluntas, 15*(2), 157-179.

Okten, C., & Weisbrod, B. A. (2000). Determinants of donations in private nonprofit markets. *Journal of Public Economics, 75*(2), 255-272.

Payne, A. A. (1998). Does the government crowd-out private donations? New evidence from a sample of non-profit firms. *Journal of Public Economics, 69*(3), 323-345.

Preston, A. E. (1988). The nonprofit firm: A potential solution to inherent market failures. *Economic Inquiry, 26*(3), 493-506.

Rooney, P. (2007). Individual giving. In D. R. Young (Ed.), *Financing nonprofits. Putting theory into practice* (pp. 23-44). Lanham, MD: AltaMira Press.

Rose-Ackerman, S. (1996). Altruism, nonprofits, and economic theory. *Journal of Economic Literature, 34*(2), 701-728.

Sokolowski, S. W. (2013). Effects of government support of nonprofit institutions on aggregate private philanthropy: Evidence from 40 countries. *Voluntas, 24*(2), 359-381.

SRA. (2013). *Sports club survey 2013. A review of clubs including membership, facility access, finances, challenges and opportunities.* London: The Sport and Recreation Alliance.

Stahl, S., Wicker, P., & Breuer, C. (2011). Strukturelle und kontextuelle Spezifika von selbstorganisierten Migrantensportvereinen [Structural and contextual aspects of self-organized migrant sports clubs]. *Sport und Gesellschaft [Sport and Society], 8*(3), 197-231.

Steinberg, R. (1991). Does government spending crowd out donations? *Annals of Public and Cooperative Economics, 62*(4), 591-612.

Steinberg, R. (2006). Economic theories of nonprofit organizations. In W. W. Powell & R. Steinberg (Eds.), *The non-profit sector. A research handbook* (2nd ed., pp. 117-139). New Haven: Yale University Press.

Ulseth, A.-L. B. (2004). Social integration in modern sport: Commercial fitness centres and voluntary sport clubs. *European Sport Management Quarterly, 2*(4), 95-115.

Vos, S., Breesch, D., Késenne, S., Lagae, W., Hoecke, J. V., Vanreusel, B., et al. (2012). The value of human resources in non-public sports providers: The importance of volunteers in non-profit sports clubs versus professionals in for-profit fitness and health clubs. *International Journal of Sport Management and Marketing, 11*(1), 3-25.

Weisbrod, B. A. (1986). Toward a theory of the voluntary nonprofit sector in a three-sector economy. In S. Rose-Ackerman (Ed.), *The economics of nonprofit institutions. Studies in structure and policy* (pp. 21-44). New York: Oxford University Press.

Weisbrod, B. A. (1998). *To profit or not to profit. The commercial transformation of the nonprofit sector*. Cambridge: University Press.

Weisbrod, B. A. (2004). The pitfalls of profits. *Stanford Social Innovation Review, 2*(3), 40-47.

Weisbrod, B. A., & Dominguez, N. D. (1986). Demand for collective goods in private nonprofit markets: Can fundraising expenditures help overcome free-rider behavior? *Journal of Public Economics, 30*(1), 83-96.

White, H. (1980). A heteroscedasticity-consistent covariance matrix estimator and a direct test for heteroscedasticity. *Econometrica, 48*(4), 817-838.

Wicker, P., & Breuer, C. (2013). Understanding the importance of organizational resources to explain organizational problems: Evidence from nonprofit sport clubs in Germany. *Voluntas, 24*(2), 461-484.

Wicker, P., Breuer, C., & Hennigs, B. (2012). Understanding the interactions among revenue categories using elasticity measures - Evidence from a longitudinal sample of non-profit sport clubs in Germany. *Sport Management Review, 15*(3), 318-329.

Wicker, P., Breuer, C., Lamprecht, M., & Fischer, A. (2014). Does club size matter? An examination of economies of scale, economies of scope, and organizational problems. *Journal of Sport Management, 28*(3), 266-280.

Wooldridge, J. M. (2013). *Introductory econometrics. A modern approach* (5th ed.). Mason: Thomson South-Western.

Young, D. R. (2007). Why study nonprofit finance? In D. R. Young (Ed.), *Financing nonprofits. Putting theory into practice* (pp. 3–20). Lanham, MD: AltaMira Press.

Young, D. R., & Steinberg, R. (1995). *Economics for nonprofit managers.* New York, NY: The Foundation Center.

5 Public subsidies for sports clubs in Germany: funding regulations vs. empirical evidence

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Abstract

Research question: The purpose of this study is to examine if the funding principles set by sport policies at different governmental levels in Germany are associated with the actual receipt of subsidies by voluntary sports clubs. Put differently, this study analyses whether the engagement of sports clubs in different areas promoted by the government is financially rewarded.

Research methods: This paper is based on a three-wave balanced panel dataset obtained from an online sports club survey in Germany (n=1275). Three Heckman selection models were applied to identify if fulfilling different funding principles affected the receipt of subsidies from sports organisations, states, and communities.

Results and Findings: The results show that the fulfilment of funding conditions is rewarded in different ways: while some policy regulations are reflected in the receipt of subsidies, others are not. Specifically, competitive sport and youth promotion activities, which are traditional focuses of clubs and public funding, are financially supported, while health sport, a newer funding area, is not, despite governmental policies proposing support for health-enhancing sport offers.

Implications: This study adds to existing knowledge on financing voluntary sports clubs by empirically testing whether and to what extent funding conditions based on sport policies translate into clubs actually receiving subsidies. From a managerial perspective, developing programmes for youth seems promising since such pro-

grammes are financially supported at different governmental levels. Moreover, clubs should apply for subsidies to cover any costs related to core sport needs (equipment and travel) and for basic funds.

Keywords: Financing sports clubs; public funding; sport policies; nonprofit sports organisations

5.1 Introduction

Voluntary sports clubs (VSCs) are the basis for mass sport participation in many European (Lamprecht, Fischer, & Stamm, 2012; Vos et al., 2011) and overseas countries, such as Canada (Misener & Doherty, 2014) and Australia (Sotiriadou & Wicker, 2013). In Europe, sport is traditionally organised along a pyramid structure, with VSCs providing the foundation of the whole system (European Commission, 1999). Consequently, VSCs enable different populations to take part in affordable sport programmes and thereby implement the idea of promoting 'sport for all', a policy goal throughout Europe (Enjolras, 2002; Nagel et al., 2015; Skille, 2008). Moreover, VSCs provide competitive sport and promote young talent through being the basis for elite sport.

However, VSC programmes and activities have changed in recent decades due to external influences and changing consumer preferences. For example, their focus has shifted from competitive and elite sports to health sports, opportunities for target groups, and collaborations with educational institutions (Koski, 2012; Nagel et al., 2015). VSCs provide important functions, including social integration (Ulseth, 2004), health promotion (Breuer & Feiler, 2015), and education (Felfe, Lechner, & Steinmayr, 2016). Thus, VSCs play a strong role in contributing to the welfare of society (Heinemann, 2005), have become a part of the political agenda (Schüttoff, Pawlowski, Downward, & Lechner, 2018) and are eligible for public funding. Consequently, VSCs in several countries, e.g. Flanders (Vos et al., 2011), Norway (Skille, 2015), and Sweden (Fahlén, 2015), receive government subsidies.

The research context of this study is Germany, where VSCs can receive direct subsidies from states, communities, and sports confederations (Haring, 2010). In European countries with a federal or similar structure like Austria, Switzerland, Belgium, the Netherlands, and Spain, the governance and funding of sport are, like in Germany, mainly left to the regional and municipal level (Ibsen, Nichols, & Elmose-Østerlund, 2016; Ternes & Jesse, 2004). In Switzerland, for example, clubs receive subsidies from communities, cantons, and the state (Lamprecht, Bürgi, Gebert, & Stamm, 2017). However, funding schemes are not all exactly the same as in Germany (cf., Bayle, 2017; Llopis-Goig, 2017). For example, in Flanders, clubs receive subsidies mainly from municipalities (van Poppel, Claes, & Scheerder, 2018), which is the case in most European countries (Eurostrategies, 2011).

In Germany, funding practices have changed over time. Historically, public sport policy and funding were characterised by untargeted subsidies aimed at promoting competitive sport. With governmental budgets becoming tighter due to the economic crisis (Parnell, Spracklen, & Millward, 2017), the distribution of subsidies has become increasingly based on fulfilling certain requirements, such as providing programmes for target groups and thereby addressing pressing societal issues. Thus,

nowadays, funding can be requested by clubs for traditional purposes like elite sport, but also for new policy areas like health sports and integration (Nagel et al., 2015).

Many VSCs in Germany receive no direct public subsidies (Breuer & Feiler, 2017), leading to financial problems. Research indicates that without subsidies, more than half of the clubs would not break even (Breuer & Wicker, 2009). However, subsidies have been found to crowd-in other revenues, such as donations and sponsorship income (Wicker, Breuer, & Hennigs, 2012), which can stabilise clubs' financial situation. A diversified income portfolio is typical for VSCs (Lamprecht et al., 2012) but leads to lower shares of each revenue source within the portfolio. Thus, the share of subsidies within the revenue portfolio of VSCs is rather low, particularly compared to other sectors (Horch, 1994; Priemer, Labigne, & Krimmer, 2016). Nevertheless, revenue diversification is important for decreasing financial vulnerability (Cordery, Sim, & Baskerville, 2013) and revenue volatility (Wicker, Longley, & Breuer, 2015). Consequently, subsidies are an important component of the revenue portfolio of VSCs. In Germany, subsidies from the community are the fourth largest income category for VSCs (Breuer & Feiler, 2017).

Cutting public support for sport organisations is a phenomenon across Europe that has recently received scientific attention, with studies investigating the consequences of austerity measures in sports organisations. In this regard, Parnell et al. (2017) call for further research in the context of third-sector sporting opportunities and participation sport. The present study responds to this call by investigating whether VSCs in Germany complying with public policies receive subsidies. Reasons to suspect that VSCs would not receive public funding despite fulfilling the proposed conditions are diverse. VSCs might not be well informed about opportunities to receive public support (Harris, Mori, & Collins, 2009) and about the processes for grant application (Sotiriadou & Wicker, 2013). Consequently, volunteers may have difficulty with this complex topic (Nichols et al., 2003). Moreover, public budgets have become tight. If yearly financial resources are exhausted, VSCs submitting late applications for funding will not receive any money. Overall, the relationship between public institutions and VSCs in Germany in terms of public funding can be regarded as a mirror of the general relationship between the state and sports organisations. This study shows how this relationship is actually implemented in the German sport system and whether it works as it is supposed to work, taking into account the general principles of German sport policy.

Thus, the purpose of this study is to examine whether and to what extent VSCs that fulfil proposed subsidy conditions are financially rewarded from different governmental levels. The main research question reads: Are the funding principles of German sport policy associated with the actual receipt of public subsidies for VSCs? From a managerial point of view, knowing which factors are associated with receiving public funds is essential for the clubs' financial management. Moreover, the

results might indicate dysfunction in the relationship between public institutions and VSCs. Overall, this study adds to the body of research regarding financing VSCs and sports policy.

5.2 Political environment and funding regulations of VSCs in Germany

5.2.1 The structure of sport in Germany

Similar to the political structure of Germany, which consists of 16 states and a large number of communities, the sport system is divided into organisations at the national, state, and local levels (Petry & Hallmann, 2013). The German Olympic Sports Confederation (DOSB) is the national umbrella organisation for organised sport in Germany (Breuer, Feiler, & Wicker, 2015). At the state level, 16 state sports confederations represent the interests of local sports confederations at the community level and approximately 90,000 VSCs (DOSB, 2017). The policy framework for sport funding is closely connected to the federal structure of Germany.

5.2.2 German sport policy

German sport policy is based on three main principles: autonomy of sport, subsidiarity of sport funding, and cooperative partnership between public institutions and sports organisations. Autonomy means that sport is independent of the state and responsible for organising its own matters. Following the principle of subsidiarity, sports organisations must first exhaust their own financial resources before claiming public support, meaning that public funding is intended to be supplementary (Federal Ministry of the Interior [BMI], 2016). Other countries, e.g. Flanders and Switzerland, also follow this principle (Stamm, Fischer, Nagel, & Lamprecht, 2015; Vos et al., 2011). Cooperative partnership means that sports organisations can fulfil public tasks and are in return supported by public institutions. For example, sports confederations pass on public money from the states to VSCs based on the subsidy conditions proposed by the government (Haring, 2010). Because sports confederations, i.e. sports organisations, distribute public money to sports clubs, subsidies from sports organisations are considered public subsidies in this study. Also in other countries, as for example in Sweden, sports confederations distribute public money to VSCs (Skille, 2011).

Different governmental levels fund different aspects of sport. The national government funds sport activities that are of national interest, such as the representation of Germany by elite athletes at international competitions. The state-level supports competitive sport and athletes who belong to the respective state-level squads (Har-

ing, 2010). While the state and community levels are responsible for supporting amateur and recreational sport (BMI, 2016), most funding for grassroots sports and VSCs comes from local communities (Langer, 2006), as in most European countries (Eurostrategies, 2011). The support for sport is included in the constitutions of all states except Hamburg (Haring, 2010). Half of German states have established specific sport laws, while the other half relies on policy regulations regarding sport funding. At the community level, sport funding is regulated by local sport policies, i.e. municipalities can individually decide how to support VSCs. However, sport funding on all levels depends on the yearly public budget and is not a legal obligation (Voigt, 2006). Although the German federal structure provides for heterogeneous sport policy regulations, common underlying principles for subsidising VSCs at different governmental levels exist (Kemper, 1999).

5.2.3 Principles of public funding for VSCs

To be eligible for public funding, German VSCs must fulfil two general requirements. First, they must be a non-profit organisation that is a registered association under German law (Deutscher Bundestag, 2014) – a requirement fulfilled by 97.6% of clubs (Breuer & Feiler, 2015). Second, clubs must be a member of a sports confederation (at either the local or state level) and association (e.g. the German Football Association).

Generally, sport funding in Germany can be divided into basic funding and funding for certain activities, projects, sports facilities, sports-related matters, elite sport, target groups, health sports offerings, and collaborations (e.g. Bavarian State Ministry of the Interior [BSIBV], 2016; Sports Confederation of North Rhine-Westphalia [LSB NRW], 2017). To receive subsidies, VSCs must go through an application procedure in which they explain the funding target and, in accordance with the principle of subsidiarity, how much money they can contribute themselves.

5.2.3.1 Basic funding

Basic funding is awarded to clubs in the form of a club-fixed rate calculated based on the number of members, the number or proportion of young members (children and adolescents), and the number of licenced coaches (e.g. BSIBV, 2016; Sports Confederation of Saxony [LSB Sachsen], 2017; MBI NRW, 2017). Subsidies increase as the numbers in these groups increase. This funding principle also exists in other countries. In Denmark, the receipt of subsidies depends on the number of members younger than 25 (Ibsen, Østerlund, & Laub, 2015). Similar regulations exist in Norway, where municipalities support clubs financially per member (Ibsen & Seippel, 2010). Since the organised sport sectors in Germany and other countries, e.g. England (Garrett, 2004), accommodate large numbers of members, they are con-

sidered an important source of social capital by policymakers. In this regard, mass sport participation is a policy goal in many countries, e.g. Sweden (Fahlén & Stenling, 2016), England (Nichols & James, 2008), and Austria (Weiss & Norden, 2015). Although scholars have criticised the scarcity of empirical evidence related to the development of social capital in VSCs (Coalter, 2007), recent empirical studies have supported social capital development in VSCs (Darcy, Maxwell, Edwards, Onyx, & Sherker, 2014; Schüttoff et al., 2018). Moreover, research shows that sport activities can increase cooperative behaviour among people and thereby increase collective welfare (Di Bartolomeo & Papa, 2017).

In Germany, nearly every third citizen is a member of a club. Among children and adolescents between 7 and 14 years, more than 80% of boys and more than 60% of girls are club members (DOSB, 2017). The potential for social integration is particularly high within this population, which is supported by studies showing that social capital formation is positively influenced by sport participation among adolescents (Schüttoff et al., 2018) and that sport participation has positive effects on children's social behaviour (Felfe et al., 2016). Both studies stress that the positive effects of sport participation are predominantly evident in VSCs.

5.2.3.2 Sports facilities

Many sports policies encompass public support for providing, building, and renovating sports facilities, particularly at the community level. Funding is mainly provided in the form of investment subsidies as a share of total investment costs (e.g. LSB NRW, 2017; Sport Confederation of Lower-Saxony [LSB NDS], 2018; Stadt Köln, 2014). Public support for facility construction is also provided to clubs in Norway, where grants cover up to one-third of costs (Ibsen & Seippel, 2010). By supporting clubs financially, governmental institutions are able to delegate responsibilities for facilities, a situation also found in other countries, e.g. Sweden (Fahlén & Stenling, 2016).

In addition to direct public support for club-owned facilities, VSCs can use public sports facilities for free or a small fee (Heinemann, 2005). The maintenance and provision of public sports facilities are core tasks of municipalities (Deutscher Bundestag, 2014), a situation similar to that in other European countries (Ibsen et al., 2016). However, if VSCs take over maintenance tasks for public facilities, they can be supported financially by states or communities (Langer, 2006). Spending money to use public facilities could therefore also lead to subsidies, although the relevant regulations are less clear than those regarding club-owned facilities.

5.2.3.3 Sports-related matters and elite sport

VSCs can receive public support for expenses related to core sports matters, such as sports equipment, travel to competitions and training camps, and hosting competitions and events (Eckl & Wetterich, 2007). For example, in Baden, VSCs can request subsidies for sports equipment from the sports confederation (cf., Badischer Sportbund Nord [BSB Nord], 2018). Moreover, public subsidies are granted for the development of elite sport, e.g. to promote young talent and squad athletes (Kemper, 1999). The state supports elite sport either through direct financial support or by supporting sports confederations, which forward the money to clubs (Haring, 2010). Likewise, national sporting success is a policy goal in many other countries. VSCs are indispensable for achieving national sporting success because they represent the basis for elite sport development via the identification and development of talent (Nichols & Taylor, 2015). In England, for example, VSCs receive funding from Sport England to 'increase the chances of international success' (Garrett, 2004, p. 13).

5.2.3.4 Target groups and health sport programmes

Following the policy goal of providing 'sport for all' (BMI, 2017), public funding is given to VSCs that offer sports programmes targeted to different populations, e.g. youth, the elderly, migrants, and the disabled. For example, the state sport confederations of North Rhine-Westphalia and Schleswig-Holstein (LSV SH) have set up programmes for children, youth, and the elderly in addition to health sports, which VSCs can adapt and receive financial support for (LSB NRW, 2017; LSV SH, 2018). Comparable subsidy conditions exist in Flanders (Vos et al., 2011) and the Netherlands (Ibsen et al., 2016). Similarly, Canadian VSCs can apply for funds for disability sport (Millar, 2015) as Canadian sport policies aim to increase the sport participation of underrepresented groups (Doherty & Clutterbuck, 2013). Across Europe, VSCs are seen as valuable actors in reaching policy goals connected to societal benefits (Skille, 2015; Ulseth, 2004). Empirically, social integration was found to be higher in VSCs than in commercial fitness centres (Ulseth, 2004). Consequently, without VSCs, the government would have to consider alternative means of providing these positive outcomes; therefore, governmental institutions support such outcomes with subsidies (BMI, 2005, 2016). The same applies to health sport programmes offered by VSCs (Deutscher Bundestag, 2008). This condition is also present in the UK (Berry & Manoli, 2018).

5.2.3.5 Collaborations

Changes in the educational system of Germany with the implementation of all-day schools have augmented problems regarding the time available for training (Breuer

& Feiler, 2015). Collaborations with schools represent a way to overcome these challenges. To foster the membership of children in VSCs to thereby build social capital (Schüttoff et al., 2018), collaborations with schools are promoted by public policies. Similarly, collaborations between VSCs and schools are publicly funded in other countries, such as England (Garrett, 2004), Hungary, and Denmark (Ibsen et al., 2016).

5.2.4 State of research

Empirical research in the field of public funding for VSCs is scarce. Studies have mainly investigated public funding in the context of austerity (Parnell et al., 2017; Parnell, Millward, Widdop, King, & May, 2018), sport governing bodies (e.g. Berry & Manoli, 2018; Edwards, Mason, & Washington, 2009), and as a measure of policy implementation (e.g. Garrett, 2004; Nichols, Padmore, Taylor, & Barrett, 2012; Skille, 2008, 2015; Vos et al., 2011). For example, Harris et al. (2009) investigated the role of VSCs in delivering national sport policy in England. They found that most VSCs were not aware of current sport policies or their expected role in delivering sport opportunities that reach government targets. Moreover, clubs reported not having the resources and capacity to deliver policy goals. The authors concluded that there was a lack of communication between national sport organisations and VSCs with regard to policy goals.

In earlier English case studies, Garrett (2004) found that funding conditions for clubs attached to the receipt of support do not necessarily lead clubs to conform to such conditions. Some clubs were not willing or able to fulfil funding conditions and pursue policy goals. Skille (2010) reported similar results, suggesting that governments should not expect too much from VSCs in terms of the realisation of policies, in this case regarding health objectives. In Scandinavian countries, a reluctance of VSCs to pursue top-down governmental initiatives with goals differing excessively from the clubs' activities has been observed (Skille, 2009). Vos et al. (2011) investigated whether governments use conditional subsidies to Flemish VSCs to achieve policy goals and found a relationship between the revenue share of subsidies and the adoption of subsidy conditions. In a study on VSCs in Australia, Sotiriadou and Wicker (2013) investigated the application process for government grants from the perspective of clubs. They found that clubs lacked awareness about funding opportunities. Moreover, clubs were uncertain about the application processes, lacked human or technological resources to complete the complex application forms, and were, consequently, reluctant to apply for funds. Canadian VSCs are challenged by the increased bureaucracy associated with government funding (Doherty & Clutterbuck, 2013).

A study on VSCs in Europe (Breuer, Feiler, Llopis-Goig, & Elmose-Østerlund, 2017) reported the share of direct public subsidies to VSCs in 10 countries. The share ranged from 5% in the Netherlands and 6% in England to 15% in Denmark and 17% in Norway. In two Eastern European countries, Poland (41%) and Hungary (28%), the share of public subsidies was higher. In Canada, governmental subsidies amounted to 7% of the revenue received by sports and recreation organisations (Lasby & Sperling, 2007). In Germany, a few studies have dealt with public funding practices at the community (e.g. Eckl & Wetterich, 2007; Voigt, 2006) and city levels (e.g. Kamann, 2011), but there is a lack of research on the receipt of public funding from the clubs' perspective. Whether and to what extent the proposed subsidy conditions are associated with the actual receipt of public subsidies by clubs has not yet been studied empirically. The present study aims to address this shortcoming.

5.3 Methods

5.3.1 Data source

This study used primary data obtained from an online sports club panel, the *Sport Development Report*, which started in 2005. Six waves have been completed, and data from different waves have previously been used in scientific studies (e.g. Wicker & Breuer, 2014, 2015). The 16 state sports confederations provided the email addresses of clubs. In each of the waves, clubs received an invitation email containing a personalised link to the online questionnaire, making it possible to interrupt the survey and start again later. This procedure allowed clubs to search for information that was not available immediately, e.g. financial data.

5.3.2 Dataset

Data from three of the six waves, namely, the third (2009), fourth (2011), and fifth waves (2013), were used because the relevant questions were asked only in these waves. The sample sizes of these three waves were n=19,345 clubs in the third wave, n=21,998 in the fourth wave, and n=20,846 in the fifth wave. Based on these waves, a balanced panel data set was constructed that contained only clubs that took part in all three waves and gave full information on the club's finances. Altogether, 425 VSCs fulfilled these criteria, resulting in a dataset of n=1275 observations. The advantage of using a panel structure with three measuring points was that it made it possible to investigate variations in subsidies across years for the same clubs. However, with the use of a three-wave panel data set, not all funding principles could be tested as information on collaborations and coaches was not available for 2011.

To improve the representativeness of the sample, weights were calculated based on club size (members), split into five groups of clubs: ⩽100, 101–300, 301–1000, 1001–2500, and >2500 members. Weights were calculated for each state (except Bremen because no clubs from Bremen remained in the panel) since club size differed among states. The empirical analysis is based on the weighted sample.

5.3.3 Statistical analyses

First, descriptive statistics were calculated. The empirical analysis distinguished between the receipt of public subsidies and the amount of public subsidies. To consider possible selectivity issues and sample selection, the two-step estimation procedure proposed by Heckman (1979) was applied. A sample-selection model is appropriate when zero observations occur due to non-observable responses (Jones, 2000), which was the case in this study when clubs did not receive subsidies during the observed time periods.

Three models were estimated with the three dependent variables reflecting the main providers of public subsidies to VSCs in Germany: subsidies from sports organisations, subsidies from the state, and subsidies from the community. The first step of the Heckman procedure estimated the receipt of subsidies, and the second step estimated the amount of subsidies. The two steps were calculated simultaneously using maximum likelihood estimation (MLE). This procedure was preferred over a two-step estimation strategy because weighting of data is possible with MLE.

For the models to converge, an exclusion restriction was required, meaning that the first step, i.e. the selection model, should contain at least one variable that is not included in the second step (Wooldridge, 2013). The variable measuring whether the club had expenses for administrative staff, meaning that the club employed paid staff for administrative tasks (*exp_admin*), was chosen as an exclusion restriction because subsidies for VSCs are not simply given to the clubs but, rather, clubs must actively apply. The high management effort of applying for subsidies has been explained by Horch (1994) and Sotiriadou and Wicker (2013) as a problem for VSCs. Having paid staff might help to overcome the burdens of application, i.e. impacting the receipt of public subsidies, but not the amount of subsidies. Therefore, paid staff was used as an exclusion restriction.

Multicollinearity of the independent variables was checked using variance inflation factors (VIFs). This check revealed VIFs larger than 10 for the number of children and youth per club because this variable was highly correlated with club size. To address potential multicollinearity, the variable share youth was used instead. Since all other VIFs were below the suggested threshold of 10 (Hair, Black, & Babin, 2006), there were no further collinearity issues.

To address endogeneity, variables with a one-period time lag were computed for the independent variables. This step revealed whether changes in club variables reflecting the funding principles had an impact on the receipt of public subsidies in the subsequent period, i.e. two years later. Standard errors were clustered by club to account for unobserved club heterogeneity.

Another set of linear regression models was estimated with the data organised as a horizontal panel. These models estimated the influence of changes in club variables representing the funding conditions between 2009 and 2011 on changes in subsidies between 2011 and 2013. However, these models were not statistically significant and are, therefore, not presented in the results section[1].

5.3.4 Measures and variables

Table 5.1 displays the variables used for the analyses. VSCs were asked to state whether they received subsidies from sports organisations (*sub_sportorga*), the state (*sub_state*), or the community (*sub_community*). Moreover, clubs reported the amount of money they received from public funding in each of these categories. For all three types of subsidies, the natural logarithm instead of the total value was used, i.e. *ln_subsportorga*, *ln_substate*, and *ln_subcommunity*. Using the natural logarithm is a common procedure in financial studies and has been applied in prior organisational studies (Carroll & Stater, 2009) to ensure that the distribution of the variable is closer to a normal distribution. The three dummy variables *sub_sportorga*, *sub_state*, and *sub_community* were used as selection variables in the first-step probit models, while the variables *ln_subsportorga*, *ln_substate*, and *ln_subcommunity* served as dependent variables in the second estimation step.

Several lagged independent variables (denoted with $_{t\text{-}1}$) were integrated into the models to empirically test the relationship between funding principles and the actual receipt of subsidies by clubs in the subsequent period. Basic funding is awarded to clubs in relation to the number of members ($members\_total_{t\text{-}1}$) and young members ($share\_youth_{t\text{-}1}$). Two variables measuring whether the club possessed its own facilities ($own\_fac_{t\text{-}1}$) and whether the club had expenses for the usage of non-club-owned facilities ($exp\_fac_{t\text{-}1}$) reflected facility funding. The funding conditions of sports-related matters were captured with three dummy variables measuring whether the club had expenses for purchasing sports equipment ($exp\_equipment_{t\text{-}1}$), travelling to take part in training sessions or competitions ($exp\_travel_{t\text{-}1}$), and hosting sport events or competitions ($exp\_events_{t\text{-}1}$).

[1] The insignificance of these models might imply that absolute changes in club variables have no impact on absolute changes in subsidies. The models are available upon request.

Table 5.1 Overview of variables.

Variable	Description	Scale
Dependent variables		
sub_sportorga	Club receives public subsidies from sports organisations (1=*yes*)	Dummy
ln_subsportorga	Logged revenues from subsidies from sports organisations	Metric
sub_state	Club receives public subsidies from the state (1=*yes*)	Dummy
ln_substate	Logged revenues from subsidies from the state	Metric
sub_community	Club receives public subsidies from the community (1=*yes*)	Dummy
ln_subcommunity	Logged revenues from subsidies from the community	Metric
Independent variables		
members_total$_{t-1}$	Total number of members	Metric
share_youth$_{t-1}$	Share of youth relative to all members (aged $\leqslant$ 18; in %)	Metric
own_fac$_{t-1}$	Possession of own sports facilities (1=*yes*)	Dummy
exp_fac$_{t-1}$	Expenses for the usage of not-club-owned facilities (1=*yes*)	Dummy
exp_equipment$_{t-1}$	Expenses for sports equipment (1=*yes*)	Dummy
exp_travel$_{t-1}$	Expenses for travel to take part in training/competitions (1=*yes*)	Dummy
exp_events$_{t-1}$	Expenses for hosting sport events/competitions (1=*yes*)	Dummy
squad_athlete$_{t-1}$	Squad athletes (1=*yes*)	Dummy
phil_talent$_{t-1}$	Our club is highly engaged in the promotion of young talent (1=*agree/totally agree*)	Dummy
phil_youth$_{t-1}$	Our club is highly engaged in youth work (1=*agree/totally agree*)	Dummy
phil_migrant$_{t-1}$	Our club offers migrants the possibility to practice sports (1=*agree/totally agree*)	Dummy
share_female$_{t-1}$	Share of females relative to all members (in %)	Metric
share_elderly$_{t-1}$	Share of seniors relative to all members (aged > 60; in %)	Metric
offers_disabled$_{t-1}$	Club provides programmes for disabled (1=*yes*)	Dummy
offers_health$_{t-1}$	Club provides health sport (1=*yes*)	Dummy

continued on next page...

Table 5.1 Continued

Variable	Description	Scale
Controls		
exp_admin_{t-1}	Expenses for administrative staff (1=*yes*)	Dummy
year	Survey year (reference=2009)	Dummy
fed_state	State (reference=Bavaria)	Dummy
type of $sport_{t-1}$	20 most often practised sports	Dummy

The provision of competitive and elite sport was covered by two variables, with the first measuring whether the club had squad athletes ($squad\_athlete_{t-1}$) and the second covering the level of talent promotion ($phil\_talent_{t-1}$). The latter is one item of the club philosophy, which was assessed using a five-point Likert scale (from 1 = do not agree at all to 5 = totally agree). For this study, the club philosophy items were recoded to dummy variables, with categories 4 and 5 indicating agreement with the philosophy statement.

The integration of target groups and the provision of health sport were covered with six variables. The first two were items from the club philosophy and stated that the club is highly engaged in youth work ($phil\_youth_{t-1}$) and offers migrants the opportunity to practice sports ($phil\_migrant_{t-1}$). Moreover, the proportion of female club members ($share\_female_{t-1}$) and the proportion of members older than 60 ($share\_elderly_{t-1}$) were included. Another variable measured whether the club offered sport programmes for the disabled ($offers\_disabled_{t-1}$). The variable $offers\_health_{t-1}$ measured whether health sport programmes were provided.

Additional variables were added to control for the year of the survey, the state of the club, and the 20 most often practised sports in the sample to account for sport-specific effects. Controlling for states was important due to heterogeneous funding regulations and potential differences in financial capacity among states, i.e. on the supply side.

5.4 Results and discussion

The summary statistics are displayed in Table 5.2. Altogether, 49.0% of clubs receive subsidies from sports organisations, while the proportion of clubs receiving funding from the states is lower (22.4%). More than half of the clubs (55.3%) receive subsidies from the community. For those clubs receiving funding, the respective annual mean values for subsidies are € 2224 from sports organisations, € 2746 from the state, and € 3195 from the community. Together, the three types of subsidies amount to 9.0% of total club revenues. This proportion is similar to those recorded in previous sports club studies in Flanders (8.6%; Vos et al., 2011) and Spain (11%;

Breuer et al., 2017). Differentiated by sources of subsidy, 3.3% come from sports organisations, 1.4% from states, and 4.3% from communities.

Table 5.2 Summary statistics.

Variable	Mean	SD
sub_sportorganisation	0.490	-
ln_subsportorga	6.755	1.347
sub_state	0.224	-
ln_substate	6.750	1.430
sub_community	0.553	-
ln_subcommunity	6.838	1.568
members_total	243.450	413.504
share_youth	24.191	19.925
own_fac	0.420	-
exp_fac	0.421	-
exp_equipment	0.712	-
exp_travel	0.395	-
exp_events	0.501	-
squad_athlete	0.105	-
phil_talent	0.221	-
phil_youth	0.658	-
phil_migrant	0.836	-
share_female	36.349	23.362
share_elderly	20.403	18.292
offers_disabled	0.045	-
offers_health	0.330	-
exp_admin	0.085	-

The average club size is 243 members, including children and adolescents (24.2%); 42.0% of clubs possess own facilities, and 42.1% have expenses associated with the usage of public facilities. Expenses for sport equipment were reported by 71.2%, and 39.5% had expenses related to travelling to sporting competitions or training camps. Expenses for hosting sport events and competitions incurred by 50.1%. Squad athletes are present in 10.5% of clubs, and 22.1% are engaged in talent promotion. Almost two-thirds are highly engaged in youth work, and 83.6% offer sport opportunities for migrants. More than one-third (36.3%) of members are female, and 20.4% are older than 60. One third of clubs offer health sports, and 4.5% have offers for disabled people. Only 8.5% have paid employees.

Table 5.3 displays the results of the three Heckman selection models.

Table 5.3 Results of Heckman selection models.

Model	1: Subsidies sports organisations		2: Subsidies state		3: Subsidies community	
Variables	sub_sportorganisation	ln_subsportorga	sub_state	ln_substate	sub_community	ln_subcommunity
members_total$_{t-1}$	.0016 (4.74)***	.0007 (2.95)***	.0001 (0.41)	.0007 (2.27)**	.0008 (1.51)	.0007 (2.33)**
share_youth$_{t-1}$	.0127 (2.60)***	-.0019 (-0.39)	.0049 (1.05)	-.0030 (-0.36)	.0102 (2.09)**	.0091 (1.32)
own_fac$_{t-1}$	.0516 (0.36)	.1897 (1.25)	.0146 (0.10)	.1584 (0.65)	.0426 (0.28)	.3987 (2.53)**
exp_fac$_{t-1}$	.1577 (1.33)	.1134 (0.78)	.1149 (0.88)	.0267 (0.16)	.2793 (2.29)**	.4727 (2.77)***
exp_equipment$_{t-1}$	.3351 (2.61)***	-.0536 (-0.33)	.0999 (0.71)	.0993 (0.46)	.3051 (2.30)**	-.0240 (-0.11)
exp_travel$_{t-1}$	-.1431 (-1.12)	.3924 (3.03)***	.0348 (0.26)	.4773 (2.68)***	.1292 (1.01)	.4047 (2.67)***
exp_events$_{t-1}$	-.0597 (-0.52)	.1553 (1.19)	.1833 (1.44)	-.0874 (-0.46)	.0535 (0.45)	.2474 (1.89)*
squad_athlete$_{t-1}$	.2822 (1.28)	.3475 (1.66)*	.2265 (1.06)	.0944 (0.34)	.1607 (0.69)	.2875 (1.71)*
phil_talent$_{t-1}$	-.0097 (-0.07)	-.1795 (-1.09)	.1761 (0.98)	-.5238 (-2.50)**	.1113 (0.65)	-.1879 (-1.36)
phil_youth$_{t-1}$	.3679 (2.10)**	.2750 (1.47)	.0431 (0.25)	.7247 (2.12)**	.2671 (1.59)	.3234 (1.24)
phil_migrant$_{t-1}$	-.1053 (-0.67)	-.2029 (-1.25)	.1420 (0.78)	-.0025 (-0.01)	.0763 (0.47)	-.1760 (-1.14)
share_female$_{t-1}$	.0011 (0.27)	.0040 (0.83)	.0100 (2.53)**	.0090 (2.08)**	.0029 (0.70)	.0017 (0.33)
share_elderly$_{t-1}$	.0086 (2.03)**	-.0009 (-0.14)	.0045 (0.93)	-.0150 (-2.22)**	-.0022 (-0.47)	.0007 (0.10)
offers_disabled$_{t-1}$	.2125 (0.74)	.3267 (1.33)	-.0301 (-0.11)	.8486 (2.51)**	.0572 (0.17)	-.3796 (-1.25)
offers_health$_{t-1}$	-.0413 (-0.21)	.1616 (0.88)	-.0813 (-0.42)	.3287 (1.17)	.2069 (1.02)	.3500 (1.43)
exp_admin$_{t-1}$	.3673 (1.64)	-	.2281 (1.02)	-	-.6195 (-2.40)**	-
constant	-2.0160 (-5.62)***	7.1798 (10.84)***	-1.9160 (-6.02)***	6.3154 (8.35)***	-1.3800 (-4.43)***	5.2427 (4.71)***
rho	-.7295		-.3016		-.0271	
lambda	-.8070		-.2796		-.0303	
Wald chi^2	283.48		581.76		351.06	
p	<.001***		<.001***		<.001***	
Observations	811	436	811	178	811	467

Note: z-values in parentheses;*p< .1; **p< .05; ***p< .01; state and sport dummies included; standard errors clustered by club.

Regarding basic funding, the number of members and the share of children and adolescents show positive and significant effects in model 1 (subsidies from sports organisations) and model 3 (subsidies from communities), while in model 2 (subsidies from states), only the number of members is significant. In model 1, both variables are positively associated with the receipt of subsidies from sports organisations. The total number of members positively influences the amount of subsidies in all three models, although the coefficients are small. Model 3 shows that clubs with higher shares of young members are more likely to receive subsidies from the community.

Overall, the three models confirm the basic funding conditions set by public policies with regard to the number of members. This means that clubs with more members are rewarded higher amounts of subsidies from the community, the state, and sports organisations. Thereby, public institutions value the social capital formation through VSCs (Darcy et al., 2014). Basic funding with regard to the share of youth members is provided to clubs from sports organisations and the community but not from the state. It is plausible that the responsibility for awarding basic funding lies with sports organisations, which take over the role of governmental institutions (Haring, 2010). Additionally, supporting clubs with basic funds is a task fulfilled by the communities representing their responsibility for grassroots sports (BMI, 2017), which also applies to other European countries, e.g. Norway (Ibsen & Seippel, 2010).

Pertaining to subsidies for sports facilities, significant results are found only in model 3: the parameter estimate for club-owned facilities has a positive and significant effect on the amount of subsidies from the community but no significant effect on whether the club receives subsidies. A main task of communities is to support VSCs with subsidies for building or renovating facilities. Funding is in such cases related to the actual investment costs. Thus, with higher construction or renovation costs, more subsidies can be requested. This finding is in line with community-level regulations in Germany (e.g. Stadt Köln, 2014) and other countries like Norway (Ibsen & Seippel, 2010) and underlines the key role of communities as supporters of VSCs in relation to investing in facilities. Thus, funding mechanisms with regard to facilities work well on the municipal level.

For clubs with expenses for the usage of non-club-owned facilities, the likelihood of receiving public funds from the community increases. Moreover, the amount of subsidies significantly increases in the period after the club incurred such expenses by 60.4%. This finding shows that by spending money for the usage of public facilities, e.g. for maintenance tasks, clubs can request support from communities, in line with funding regulations (Haring, 2010). A reason for the support through communities is the relief of public institutions from managing sports facilities, as these tasks are transferred to VSCs and subsequently financially supported. Such situations are common in other countries, e.g. Sweden (Fahlén & Stenling, 2016).

With respect to funding sports-related matters, the results of the three estimation models were different regarding subsidies for purchasing sports equipment, travelling, and hosting sporting events. Clubs that had expenses for sports equipment are more likely to receive subsidies from sports organisations and communities, but there are no significant effects in model 2, suggesting that subsidies for sports equipment from states are less relevant. Furthermore, all three models reveal that clubs that had expenses for travelling to competitions receive more subsidies from sports organisations, the state, and the community. This finding can be regarded as indirect support for competitive sport and shows that traditional areas of public support are still important. Lastly, clubs that incurred expenses for hosting sporting competitions receive higher amounts of public subsidies from the community. Overall, model 3 shows positive and significant effects for all three sport-related variables, in accordance with sport policies that propose that public support for sports-related matters is mainly the responsibility of communities (Eckl & Wetterich, 2007).

Interesting results are revealed with regard for public funding for elite sports. Clubs that have squad athletes receive higher amounts of public funding from sports organisations and communities. When a club has squad athletes, the expected increase in subsidies from sports organisations amounts to 41.6%. A slightly smaller effect is observed for the parameter estimate for squad athletes in model 3: having squad athletes increases the amount of funding from the community by 33.3%. In contrast, there are no significant effects in model 2, indicating that sports organisations, in this case, take over public tasks. Moreover, as described above, the state indirectly subsidises competitive sport through subsidies for travel to sporting competitions. However, being engaged in the promotion of young talent has no significant impact on the receipt of subsidies or on the amount of subsidies in models 1 and 3 and has a negative and significant effect on the amount of funding received from the state. Thus, being engaged in the development of talented athletes is not sufficient to receive financial support as funding for elite sports is granted to VSCs only when the club has developed athletes that qualified for a squad.

With regard to public funding for specific target groups, the results of the three estimation models are diverse. The variable $phil\_youth_{t\text{-}1}$ shows positive and significant effects in models 1 and 2: being highly engaged in youth work has a positive and significant effect on the receipt of subsidies from sports organisations. At the state level, the parameter estimate is positive and significant for the amount of public subsidies: in clubs that are highly engaged in youth work, the expected increase in subsidies from the state amounts to 106%. These results confirm that youth promotion is strongly valued at different governmental levels and is consequently financially rewarded, as proposed in sport policies in Germany (Kemper, 1999; LSB NRW, 2017) and other countries, e.g. the Netherlands (Hoekman, Breedveld, & Kraaykamp, 2017) and Flanders (Vos et al., 2011).

With regard to clubs that focus on females, significant effects are detected only in model 2: clubs with high proportions of female members are more likely to receive funding from the state and higher amounts of subsidies. Offering sport programmes for disabled people has a positive and significant effect only on the level of subsidies from the state: clubs with offerings for the disabled will experience an increase in funding by 134%. Thus, clubs that focus on women and the disabled fulfil funding conditions from the states and are in a good position to receive public support from this governmental level, a result that is interesting for other countries where similar subsidy conditions exist, e.g. Flanders (Vos et al., 2011).

Clubs consisting of high proportions of the elderly are more likely to receive subsidies from sports organisations. In contrast, high shares of older members have a negative effect on the amount of subsidies received from the state. Based on the results of Harris et al. (2009) and Sotiriadou and Wicker (2013), who found that clubs are often not up to date or aware of current policies, clubs with high shares of the elderly may be even less broadly informed about different funding possibilities. Such clubs might apply for funds from sports organisations but may not be aware that they would also be eligible to request subsidies from the state.

Facilitating sport participation among migrants is not significant in all three models. This was rather unexpected since the integration of people with a migration background is a policy goal on all governmental levels. However, it is likely that the situation has changed today due to the large immigration of refugees to Germany since 2015. This immigration wave and new funding programmes are not covered within the time period of this study.

Similar results are observed for offering health sports: there are no significant effects in any of the three models, and in model 3, no significant effects are found for any of the population groups. This finding is surprising as sport policies for supporting different populations and offering health sports also exist at the community level. A logical reason can be that financial budgets of communities were tight because money had already been given to clubs to cover sports facilities, events and competitions, as the results of our study show. Moreover, some clubs might not be willing or able to adopt policies that are not in line with their club goals and traditions (Garrett, 2004) or if the effort is too high to apply for funds. Offering health sport calls for certain prerequisites (qualified coaches and equipment) and clubs might not have the human and financial resources to fulfil this. In this regard, Sotiriadou and Wicker (2013) found that clubs were reluctant to apply for subsidies if the application process was too challenging or if experienced staff and technology were scarce. Thus, clubs might choose to decline conditional governmental support (Nichols & James, 2008).

5.5 Conclusion

This study empirically investigated relationships between the fulfilment of funding conditions set by sport policies and the actual receipt of subsidies by VSCs in Germany. Apart from Germany, the results are interesting for VSCs and policymakers in countries which have a similar political structure, like Austria, Switzerland, and Belgium. Moreover, since funding of VSCs is mainly the responsibility of communities throughout Europe (Eurostrategies, 2011), other countries might also find interest in the results of the third regression model.

The results show that public funding is awarded to clubs that fulfil the funding conditions in several areas. These areas include public support for core sport aspects related to competitive and elite sport, i.e. the traditional funding areas. In line with this finding is that youth promotion, also a core function of VSCs, is publicly funded. Thus, the traditional competence of VSCs with regard to the development of young athletes, competitive sport, and squad athletes is still a large focus of public support. Since this situation is similar in other countries, e.g. in the Netherlands (Hoekman et al., 2017) and Finland (Makinen, Aarresola, Lamsa, Lehtonen, & Nieminen, 2016), these findings are also relevant in other contexts.

However, there are also fields that are not financially rewarded despite the fulfilment of policy regulations, including health sport programmes. This finding is interesting since clubs are encouraged to develop new programmes, e.g. with a health sport focus, but public funding is still mainly offered for the traditional competitive focus and youth promotion. Thus, clubs seem to apply more for funds related to core sport offers than to those related to health sports. A Norwegian study reported similar results, revealing that competitiveness was more important to VSCs than were health issues (Skille, 2010). Overall, the results suggest that new funding possibilities for target groups and health sports, compared to traditional funding for elite sport, are not yet well established.

Based on the findings, managerial implications for VSCs and recommendations for sports organisations and public institutions can be derived. First, since basic funding is open to all VSCs that fulfil the general requirements, clubs should apply for basic funding sources. It seems that not all clubs are aware of this funding opportunity since not all clubs receive public funding and therefore forego support that they are eligible to receive. A lack of awareness of funding possibilities was previously detected for Australian VSCs (Sotiriadou & Wicker, 2013). Similarly, an English study found that many clubs are not familiar with current sports policies, indicating a lack of communication between governmental institutions and VSCs (Harris et al., 2009). Therefore, despite the high management effort required for the application of subsidies by VSCs (Sotiriadou & Wicker, 2013), becoming familiar with existing funding options and recent developments, e.g. by studying policy documents or

guidelines of sports confederations and subsequently applying, seem worthwhile as subsidies can help stabilise a club's financial situation. For sports organisations, it seems advisable to check whether the information provided for clubs is easily accessible and understandable.

Second, VSCs that possess sports facilities can access funding from the community. Since the possession of sports facilities was the second highest expenditure among all costs of clubs (Breuer & Feiler, 2017), the possibility of receiving support in this area is particularly important. Subsidies are awarded to clubs either as a fixed rate or as a proportion of the investment costs and can help clubs to renovate facilities. The need for modernisation of facilities is well documented (Breuer & Feiler, 2013). Moreover, clubs that use public facilities and spend money for the usage or taking over of maintenance tasks should apply for support from the community or, as in Sweden, take over such facilities to receive public support (Fahlén & Stenling, 2016), particularly when clubs are in need of additional facilities to provide their sport programmes to members (Nagel et al., 2015). However, costs connected to such take-overs need to be considered by the clubs.

Third, access to subsidies from all governmental levels is related to clubs' expenses for core sports matters. Since more than 70% of clubs spend money on sports equipment but only approximately half of clubs receive subsidies from sports organisations or the community, clubs that have not applied for subsidies for equipment could use this opportunity to increase their revenue portfolio, which is an effective way to minimise financial risk (Cordery et al., 2013).

Fourth, with regard to elite sport, clubs need to consider that public funding is awarded solely when they have squad athletes. Simply promoting young talents is not financially rewarded. Nevertheless, since subsidies are also given to clubs that have high shares of children and adolescents and that are engaged in youth work, promoting young athletes might still be a worthwhile investment, particularly when these talents reach the status of a squad athlete. This is also applicable in other countries since youth sport promotion is a key policy goal across Europe (Ibsen et al., 2016; Nichols & Taylor, 2015) and VSCs are publicly supported for developing successful athletes since they increase the likelihood of national sporting success, for example in England (Garrett, 2004).

Fifth, a clear recommendation with regard to different populations groups is difficult since the results vary. One possibility would be to focus on the youth since subsidies are awarded for this group from more than one governmental level. Another possibility is to develop programmes for the elderly and apply for subsidies from sports organisations. Taking into account that the share of the elderly in the German population will constantly increase (Federal Statistical Office, 2015), this population represents a large group of potential members. Recruiting new members from this group can help clubs to secure their long-term existence and at the same

time receive subsidies. This suggestion is also applicable to other European countries since population ageing affects the entire EU and is expected to continue in the coming decades (European Commission, 2015).

This study has limitations that can guide future research. Although the statistical analysis attempted to allow causal interpretations by using lagged variables, the models could be further improved in terms of estimating causal effects. However, this was not possible due to data restrictions and difficulties associated with the use of a horizontal panel data set. Therefore, causal interpretations should be made with caution. Additionally, due to data restrictions, it was not possible to test whether the number of coaches and cooperative activities with schools, which are subjects of public policies, are rewarded with public funds. Moreover, the data used for this study stem from the years 2009, 2011, and 2013. Thus, recent developments, such as the immigration wave of refugees that started in 2015, are not covered in these data. This recent trend might explain why offering sports to migrants did not show a significant effect. Therefore, this result should be treated cautiously.

Apart from fulfilling funding conditions, there might be other factors related to the receipt of subsidies that were not covered in this study, such as individual factors of members and their relation to local authorities (e.g. lobbying). Sotiriadou and Wicker (2013) found that clubs in regular contact with public institutions felt more informed about funding possibilities. Additionally, external factors like the financial situation of communities, i.e. whether public budgets are exhausted, might be relevant and would be interesting to investigate in future research by applying multi-level analyses. As the data of this study is limited to Germany, investigating the fulfilment of funding conditions and its impact on receiving subsidies should be examined in other countries with similar sport policy structures to understand whether the results of this study are specific to Germany or can be generalised to other countries. As this study focused on revenues in the form of subsidies, future research should take into account costs related to the application for subsidies and for running additional sports programmes by conducting a cost-benefit analysis.

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5.6 References

Bayle, E. (2017). The organisation of sport and policy towards sport federations. In J. Scheerder, A. Willem, & E. Claes (Eds.), *Sport policy systems and sport federations. A cross-national perspective* (pp. 263-282). London: Palgrave Macmillan.

Berry, R., & Manoli, A. E. (2018). Alternative revenue streams for centrally funded sport governing bodies. *International Journal of Sport Policy and Politics*, 10(3), 429-450. doi:10.1080/19406940.2017.1387587

BMI. (2005). Amtlicher Teil [Official part]. In BMI (Ed.), *Gemeinsames Ministerialblatt* (56th volume, issue 63, pp. 1269-1292). Berlin: BMI.

BMI. (2016). *Federal sport policy.* Retrieved 04.12.2016 from http://www.bmi.bund.de/EN/Topics/Sport/Federal-Sport-Policy/federal-sport-policy_node.html

BMI. (2017). *Sport.* Retrieved 23.05.2017 from http://www.bmi.bund.de/EN/ Topics/Sport/sport_node.html

Breuer, C., & Feiler, S. (2013). *Sport Development Report 2011/2012. Analysis of the situation of sports clubs in Germany. Abbreviated Version.* Cologne: Sportverlag Strauß.

Breuer, C., & Feiler, S. (2015). *Sport Development Report 2013/2014. Analysis of the situation of sports clubs in Germany. Abbreviated Version.* Cologne: Sportverlag Strauß.

Breuer, C., & Feiler, S. (2017). *Sport Development Report 2015/2016. Analysis of the situation of sports clubs in Germany. Abbreviated Version.* Cologne: Sportverlag Strauß.

Breuer, C., Feiler, S., Llopis-Goig, R., & Elmose-Østerlund, K. (2017). *Characteristics of European sports clubs. A comparison of the structure, management, voluntary work and social integration among sports clubs across ten European countries.* Odense: University of Southern Denmark.

Breuer, C., Feiler, S., & Wicker, P. (2015). Sport clubs in Germany. In C. Breuer, R. Hoekman, S. Nagel, & H. Van der Werff (Eds.), *Sport clubs in Europe. A cross-national comparative perspective* (pp. 187-208). Cham: Springer.

Breuer, C., & Wicker, P. (2009). *Sport Development Report 2007/2008. Analysis of the sports clubs‘ situation in Germany. Abbreviated Version.* Cologne: Sportverlag Strauß.

BSB Nord. (2018). *Sport braucht Ausrüstung [Sport needs equipement].* Retrieved 11.10.2018 from https://www.badischer-sportbund.de/zuschuesse/sportgeraete/

BSIBV. (2016). *Richtlinien über die Gewährung von Zuwendungen des Freistaats Bayern zur Förderung des außerschulischen Sports (Sportförderrichtlinien – Sport-*

FöR). [Guidelines on the granting of subsidies from the Free State of Bavaria for the support of extracurricular sports (Sports Funding Guidelines - SportFöR).] Bekanntmachung vom 30. Dezember 2016, Az. PKS7-5880-1-7. München: Bayerisches Staatsministerium des Innern, für Bau und Verkehr.

Carroll, D. A., & Stater, K. J. (2009). Revenue diversification in nonprofit organizations: Does it lead to financial stability? *Journal of Public Administration Research and Theory, 19*(4), 947-966.

Coalter, F. (2007). Sports clubs, social capital and social regeneration: 'ill-defined interventions with hard to follow outcomes'? *Sport in Society, 10*(4), 537-559.

Cordery, C. J., Sim, D., & Baskerville, R. F. (2013). Three models, one goal: Assessing financial vulnerability in New Zealand amateur sports clubs. *Sport Management Review, 16*(2), 186-199.

Darcy, S., Maxwell, H., Edwards, M., Onyx, J., & Sherker, S. (2014). More than a sport and volunteers organization: Investigating social capital development in a sporting organisation. *Sport Management Review, 17*, 395-406.

Deutscher Bundestag. (2008). *Sportförderung in Deutschland und der EU [Sport funding in Germany and the EU]. Wissenschaftliche Dienste, WD 10–001/08.* Berlin: Deutscher Bundestag.

Deutscher Bundestag. (2014). *13. Sportbericht der Bundesregierung [13th Sport Report of the Federal Government]. Drucksache 18/3523.* Berlin: Deutscher Bundestag.

Di Bartolomeo, G., & Papa, S. (2017). The effects of physical activity on social interactions. *Journal of Sports Economics*, doi:10.1177/1527002517717299

Doherty, A., & Clutterbuck, R. (2013). Canada. In K. Hallmann & K. Petry (Eds.), *Comparative sport development. Systems, participation and public policy* (pp. 323-342). New York, NY: Springer.

DOSB. (2017). *Bestandserhebung 2017 [Annual statistics 2017].* Frankfurt: Deutscher Olympischer Sportbund.

Eckl, S., & Wetterich, J. (2007). *Sportförderung und Sportpolitik in der Kommune [Sport funding and sport policy at municipal level].* Berlin: Lit.

Edwards, J. R., Mason, D. S., & Washington, M. (2009). Institutional pressures, government funding and provincial sport organisations. *International Journal of Sport Management and Marketing, 6*(2), 128-149.

Enjolras, B. (2002). The commercialization of voluntary sport organizations in Norway. *Nonprofit and Voluntary Sector Quarterly, 31*(3), 352–376.

European Commission. (1999). *The European model of sport. Consultation Document of Directorate-General X.* Brussels: European Commission.

European Commission. (2015). *Demography Report. Short Analytical Web Note, 3/2015*. Luxembourg: Publications Office of the European Union.

Eurostrategies. (2011). *Study on the funding of grassroots sports in the EU. With a focus on the internal market aspects concerning legislative frameworks and systems of financing. Final Report*. Volume I. Brussels: Amnyos, CDES, Deutsche Sporthochschule Köln, EOC EU Office.

Fahlén, J. (2015). Sport clubs in Sweden. In C. Breuer, R. Hoeckman, S. Nagel, & H. Van derWerff (Eds.), *Sport clubs in Europe. A cross-national comparative perspective* (pp. 343-367). Cham: Springer.

Fahlén, J.,& Stenling, C. (2016). Sport policy in Sweden. *International Journal of Sport Policy and Politics, 8*(3), 515-531.

Federal Statistical Office. (2015). *Bevölkerung Deutschlands bis 2060. Ergebnisse der 13. koordinierten Bevölkerungsvorausberechnung [German population until 2060. Results of the 13th coordinated population forecast]*. Wiesbaden: Federal Statistical Office.

Felfe, C., Lechner, M., & Steinmayr, A. (2016). Sports and child development. *PLoS ONE, 11*(5), e0151729. doi:10.1371/journal.pone.0151729

Garrett, R. (2004). The response of voluntary sports clubs to sport England's Lottery funding: Cases of compliance, change and resistance. *Managing Leisure, 9*(1), 13-29.

Hair, J., Black, W., & Babin, B. (2006). *Multivariate data analysis*. NJ: Pearson Prentice Hall.

Haring, M. (2010). *Sportförderung in Deutschland. Eine vergleichende Analyse der Bundesländer [Sport funding in Germany. A comparative analysis of the states]*. Wiesbaden: VS Verlag für Sozialwissenschaften.

Harris, S., Mori, K., & Collins, M. (2009). Great expectations: Voluntary sports clubs and their role in delivering national policy for English sport. *Voluntas: International Journal of Voluntary and Nonprofit Organizations, 20*(4), 405-423.

Heckman, J. (1979). Sample selection bias as a specification error. *Econometrica, 47*(1), 153-161.

Heinemann, K. (2005). Sport and the welfare state in Europe. *European Journal of Sport Science, 5*(4), 181-188.

Hoekman, R., Breedveld, K., & Kraaykamp, G. (2017). Providing for the rich? The effect of public investments in sport on sport (club) participation of vulnerable youth and adults. *European Journal for Sport and Society, 14*(4), 327-347.

Horch, H.-D. (1994). Does government financing have a detrimental effect on the autonomy of voluntary associations? Evidence from German sports clubs. *International Review for the Sociology of Sport, 29*(3), 269-285.

Ibsen, B., Nichols, G., & Elmose-Østerlund, K. (2016). *Sports club policies in Europe.* Odense: University of Southern Denmark.

Ibsen, B., Østerlund, K., & Laub, T. (2015). Sport clubs in Denmark. In C. Breuer, R. Hoekman, S. Nagel, & H. Van der Werff (Eds.), *Sport clubs in Europe. A cross-national comparative perspective* (pp. 85-109). Cham: Springer.

Ibsen, B., & Seippel, Ø. (2010). Voluntary organized sport in Denmark and Norway. *Sport in Society, 13*(4), 593-608.

Jones, A. M. (2000). Health econometrics. In A. J. Culyer & J. P. Newhouse (Eds.), *Handbook of health economics* (pp. 265-345). Amsterdam: Elsevier.

Kamann, N.-K. (2011). *Die kommunale Sportvereinsförderung. Entwicklungsmöglichkeiten und Grenzen beispielhaft vorgestellt an der Stadt Leipzig [Municipal sports club promotion. Development possibilities and borders exemplified at the city of Leipzig].* München: AVM Verlag.

Kemper, F.-J. (1999). Sportförderung in den Ländern [Sport funding in the states]. In G. Trosien (Ed.), *Die Sportbranche: Wachstum – Wettbewerb – Wirtschaftlichkeit* (pp. 154-164). Frankfurt: Campus.

Koski, P. (2012). Finnish sports club as a mirror of society. *International Journal of Sport Policy and Politics, 4*(2), 257-275.

Lamprecht, M., Bürgi, R., Gebert, A., & Stamm, H. (2017). *Sportvereine in der Schweiz. Entwicklungen, Herausforderungen und Perspektiven [Sports clubs in Switzerland. Developments, challenges and perspectives].* Magglingen: Bundesamt für Sport BASPO.

Lamprecht, M., Fischer, A., & Stamm, H. (2012). *Die Schweizer Sportvereine: Strukturen, Leistungen, Herausforderungen [Swiss sports clubs: Structures, attainment and challanges].* Zürich: Seismo Verlag.

Langer, M. (2006). Öffentliche Sportförderung: eine ordnungspolitische Betrachtung [Public sport funding: a regulative examination]. *Wirtschaftsdienst, 86*(2), 120-124.

Lasby, D., & Sperling, J. (2007). *Understanding the capacity of Ontario sports and recreation organizations.* Toronto, ON: Imagine Canada.

Llopis-Goig, R. (2017). Spain: Putting the pieces of the sport system in place – The role of the sport federations. In J. Scheerder, A. Willem, & E. Claes (Eds.), *Sport policy systems and sport federations. A cross-national perspective* (pp. 243-262). London: Palgrave Macmillan.

LSB NDS. (2018). *Richtlinie zur Förderung des Sportstättenbaus [Guideline for the promotion of sports facilities construction].* Retrieved 10.10.2018 from https://www.lsb-niedersachsen.de/fileadmin/user_upload/2018_RiLi_zur_ Foerderung _des_Sportstaettenbaus.pdf

LSB NRW. (2017). *Partner, Förderer, Multiplikator [Partner, promoter, multiplicator].* Duisburg: Landessportbund Nordrhein-Westfalen e.V.

LSB Sachsen. (2017). *Sportförderung 2018 [Sport funding 2018].* Retrieved 06.04.2018 from https://www.sport-fuer-sachsen.de/files/user_upload/03_Dokumentenarchiv _LSB/Sportfoerderung/LSB_Sportfoerderbroschuere_2018_01.pdf

LSV SH. (2018). *Förderung und Zuschüsse [Promotion and subisidies].* Retrieved 11.10.2018 from https://www.lsv-sh.de/foerderung-zuschuesse/

Makinen, J. K., Aarresola, O., Lamsa, J., Lehtonen, K., & Nieminen, M. (2016). Managing civic activities by performance: Impacts of the government's performance-based funding system and the domain structure in Finnish sports policy. *International Journal of Sport Policy and Politics, 8*(2), 265-285.

MBI NRW. (2017). Richtlinien über die Gewährung von Zuwendungen zur Förderung der Übungsarbeit in Sportvereinen [Guidelines on granting financial benefits to promote exercise work in sports clubs]. *Ministerialblatt (MBI.NRW)*, Ausgabe 2017, Nr. 17, 461-747.

Millar, P. L. (2015). *Capacity Building in Community Sport Organizations.* Electronic Thesis and Dissertation Repository. 3010. London: Universtiy of Western Ontario.

Misener, K., & Doherty, A. (2014). In support of sport: Examining the relationship between community sport organizations and sponsors. *Sport Management Review, 17*(4), 493-506.

Nagel, S., Schlesinger, T., Wicker, P., Lucassen, J., Hoeckman, R., van der Werff, H., & Breuer, C. (2015). Theoretical framework. In C. Breuer, R. Hoeckman, S. Nagel, & H. van der Werff (Eds.), *Sport clubs in Europe. A cross-national comparative perspective* (pp. 7-27). Cham: Springer.

Nichols, G., & James, M. (2008). One size does not fit all: Implications of sports club diversity for their effectiveness as a policy tool and for government support. *Managing Leisure, 13*(2), 104-114.

Nichols, G., Padmore, J., Taylor, P., & Barrett, D. (2012). The relationship between types of sports club and English government policy to grow participation. *International Journal of Sport Policy and Politics, 4*(2), 187-200.

Nichols, G., & Taylor, P. (2015). Sport clubs in England. In C. Breuer, R. Hoekman, S. Nagel, & H. Van der Werff (Eds.), *Sport clubs in Europe. A cross-national comparative perspective* (pp. 111-130). Cham: Springer.

Nichols, G., Taylor, P., James, M., King, L., Holmes, K., & Garrett, R. (2003). Pressures on sports volunteers arising from partnerships with the central government. *Loisir et Société / Society and Leisure, 26*(2), 419-430.

Parnell, D., Millward, P., Widdop, P., King, N., & May, A. (2018). Sport policy and politics in an era of austerity. *International Journal of Sport Policy and Politics, 10*(1), 1-5.

Parnell, D., Spracklen, K., & Millward, P. (2017). Sport management issues in an era of austerity. *European Sport Management Quarterly, 17*(1), 67-74.

Petry, K., & Hallmann, K. (2013). Germany. In K. Hallmann & K. Petry (Eds.), *Comparative sport development* (pp. 75-86). New York: Springer.

Priemer, J., Labigne, A., & Krimmer, H. (2016). *ZiviZ-Finanzierungsstudie 2015. Weniger Subsidiarität, mehr Wettbewerb in der Zivilgesellschaft? [ZiviZ-Finance Study 2015: Less subsidiarity, more competition in civil society?].* Essen: Edition Stifterverband.

Schüttoff, U., Pawlowski, T., Downward, P., & Lechner, M. (2018). Sports participation and social capital formation during adolescence. *Social Science Quarterly, 99*(2), 683-698. doi:10.1111/ssqu.12453

Skille, E. Å. (2008). Understanding sport clubs as sport policy implementers: A theoretical framework for the analysis of the implementation of central sport policy through local and voluntary sport organizations. *International Review for the Sociology of Sport, 43*(2), 181-200.

Skille, E. Å. (2009). State sport policy and voluntary sport clubs: The case of the Norwegian sports city program as social policy. *European Sport Management Quarterly, 9*(1), 63-79.

Skille, E. Å. (2010). Competitiveness and health: The work of sport clubs as seen by sport clubs representatives - a Norwegian case study. *International Review for the Sociology of Sport, 45*(1), 73-85.

Skille, E. Å. (2011). Sport for all in Scandinavia: Sport policy and participation in Norway, Sweden and Denmark. *International Journal of Sport Policy and Politics, 3*(3), 327-339.

Skille, E. Å. (2015). Community and sport in Norway: Between state sport policy and local sport clubs. *International Journal of Sport Policy and Politics, 7*(4), 505-518.

Sotiriadou, P., & Wicker, P. (2013). Community sports clubs' responses to institutional and resource dependence pressures for government grants. *Annals of Leisure Research, 16*(4), 297-314.

Stadt Köln. (2014). *Richtlinie 'Bauförderung' in der Fassung vom 05.05.2014 [Guideline on funding for construction work].* Retrieved 08.04.2018 from http://www.stadt-koeln.de/leben-in-koeln/freizeit-natur-sport/sportstadt/unterstuetzung-fuer-600-vereine

Stamm, H., Fischer, A., Nagel, S., & Lamprecht, M. (2015). Sport clubs in Switzerland. In C. Breuer, R. Hoekman, S. Nagel, & H. van der Werff (Eds.), *Sport clubs in Europe. A cross-national comparative perspective* (pp. 401-417). Cham: Springer.

Ternes, E., & Jesse, B. (2004). Sports structures in Austria. In W. Tokarski, D. Steinbach, K. Petry, & B. Jesse (Eds.), *Two players – One goal? Sport in the European Union* (pp. 127-132). Aachen: Meyer & Meyer.

Ulseth, A.-L. B. (2004). Social integration in modern sport: Commercial fitness centres and voluntary sport clubs. *European Sport Management Quarterly, 2*(4), 95-115.

van Poppel, M., Claes, E., & Scheerder, J. (2018). Sport policy in Flanders (Belgium). *International Journal of Sport Policy and Politics, 10*(2), 271-285.

Voigt, F. (2006). *Kommunale Sportsubventionen in Deutschland. Bundesweite Quer- und Längsschnittstudien zur Umsetzung des neuen Steuerungsmodells in den kommunalen Sportverwaltungen [Municipal sport subsidies in Germany. Nationwide cross-sectional and longitudinal studies for the implementaion of new public management in municipal sport administration].* Berlin: Lit.

Vos, S., Breesch, D., Késenne, S., Hoecke, J. V., Vanreusel, B., & Scheerder, J. (2011). Governmental subsidies and coercive pressures. Evidence from sport clubs and their resource dependencies. *European Journal for Sport and Society, 8*(4), 257-280.

Weiss, O., & Norden, G. (2015). Sport clubs in Austria. In C. Breuer, R. Hoeckman, S. Nagel, & H. Van der Werff (Eds.), *Sport clubs in Europe. A cross-national comparative perspective* (pp. 29-45). Cham: Springer.

Wicker, P., & Breuer, C. (2014). Exploring the organizational capacity and organizational problems of disability sport clubs in Germany using matched pairs analysis. *Sport Management Review, 17*(1), 23-34.

Wicker, P., & Breuer, C. (2015). How the economic and financial situation of the community affects sport clubs' resources: Evidence from multi-level model. *International Journal of Financial Studies, 3*(1), 31-48.

Wicker, P., Breuer, C., & Hennigs, B. (2012). Understanding the interactions among revenue categories using elasticity measures – Evidence from a longitudinal sample of non-profit sport clubs in Germany. *Sport Management Review, 15*(3), 318-329.

Wicker, P., Longley, N., & Breuer, C. (2015). Revenue volatility in German nonprofit sports clubs. *Nonprofit and Voluntary Sector Quarterly, 44*(1), 5-24.

Wooldridge, J. M. (2013). *Introductory econometrics. A modern approach* (5th ed.). Mason: Thomson South-Western.

6 The perceived financial situation of nonprofit sports clubs explained by objective financial measures

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Abstract

In surveys across countries, nonprofit sports clubs report their perceived financial situation using some form of Likert scale; however, it is unclear what this subjectively reported rating reflects. The purpose of this study is to examine the link between objective financial measures and club officials' perceptions of the financial situation. The main research question is: What objective financial measures best reflect the level and changes in the perceived financial situation of nonprofit sports clubs? The study used panel data from four consecutive waves of a German sports club's panel (n=2,859). The clubs' financial situation was assessed on a 6-point scale (1=no problem; 6=existential problem). This subjective measure was juxtaposed with several objective financial measures drawn from the literature and financial theories. These measures include general financial measures like interest coverage, margin, and revenue diversification, but also measures specifically developed for the nonprofit sports clubs' context. The results of regression analyses show that operating margin, revenue diversity, the share of facility expenses relative to total expenses, and administrative expenses relative to total revenue significantly explained the subjectively rated financial situation. The findings suggest that objective financial measures are required to better understand the financial situation of sports clubs and design more targeted support programmes.

Keywords: Nonprofit finance; financial ratios; financial vulnerability; financial health; revenue diversification; voluntary sports organisations

6.1 Introduction

Nonprofit sports clubs allow people from different population groups to participate in affordable sports programmes, but their financial situation is not without difficulties (e.g., Coates et al., 2014; Wicker & Breuer, 2013). Financial problems represent a continual challenge for sports clubs in New Zealand (Cordery & Baskerville, 2010b), Canada (Gumulka et al., 2005), and Europe (e.g., Allison, 2001; Breuer et al., 2017; Lamprecht et al., 2017; SRA, 2018), potentially threatening the existence of clubs (Breuer & Feiler, 2020). Sports clubs can become financially vulnerable (Cordery et al., 2013, 2018), which restricts them from achieving their goals and overall organisational mission (Chang et al., 2018; Young, 2007). Hence, staying financially healthy is a prerequisite for keeping up club operations (Coates & Wicker, 2017).

Within sports club surveys, which different institutions can conduct, e.g., sports organisations or federations such as Sport England in cooperation with the Sport and Recreation Alliance (SRA, 2018), or researchers in collaboration with public and/or third sector organisations (Lamprecht et al., 2017), or research groups funded by the European Union (Breuer et al., 2017), financial problems are typically assessed subjectively by asking club representatives, e.g., the president or treasurer, for their opinion on the severity of the problem. The advantage of a general question on the financial situation is that answering it is not very burdensome for the respondents, and thus, dropout rates should be lower. The disadvantage, however, is that detailed information about concrete financial circumstances is not provided, hence limiting the opportunity to intervene and provide targeted support. Moreover, the factors driving the subjective assessment of club officials are not clear. In other words, it is unclear on what basis club representatives report a good or poor financial situation of the club and whether they feel the financial situation has improved or worsened over time.

The general nonprofit literature has suggested different financial measures (Prentice, 2016b) which would provide such information. However, they have hardly been used to understand the financial situation of sports clubs. Despite a large body of research on nonprofit sports clubs, few studies were dedicated to finances. Such studies, for example, examined interrelationships between financial and volunteer problems (Coates et al., 2014), financial vulnerability (Cordery et al., 2013), revenue volatility (Wicker et al., 2015), and different revenue sources (Feiler et al., 2019a, 2019b). Hence, evaluating sports clubs' financial situation based on objective financial measures has so far been neglected. Thus, which financial measures best explain the perceived financial situation that club officials report in surveys is unclear. The underlying study aims to address this research gap by investigating objective financial measures and their relation to subjectively perceived financial

problems. Such knowledge is important for a number of stakeholders like sports associations, sports federations, sport politicians, and local authorities, which have a collective interest in sports clubs' financial health and effective programme delivery.

This study addresses the call by Coates and Wicker (2017) for research that evaluates which financial measures best reflect the financial situation of nonprofit sports organisations. Thus, the purpose of this study is to examine the link between club officials' perceptions of financial problems and multiple objective financial measures. The two main research questions are: (1) Which objective financial measures best reflect the perceived financial situation of nonprofit sports clubs? (2) Which changes in objective financial measures best reflect changes in the perception of the financial situation of nonprofit sports clubs over time? The study contributes to the body of research on nonprofit sports clubs' finances by investigating objective financial measures as indicators for perceived financial problems, considering related theoretical approaches such as portfolio theory. The study aims to shed light on the so far unknown mechanisms behind the subjective rating of the clubs' financial situation and thereby to close a research gap in the nonprofit sports literature.

6.2 The financial situation of nonprofit sports clubs

6.2.1 Subjective financial measures

The financial situation of nonprofit sports clubs has been investigated in various studies across countries using subjective financial measures. For example, in Germany, which is the research context of this study, the regular sports club survey (Breuer & Feiler, 2020) reports that the perceived problem size due to the overall financial situation, measured on a 5-point Likert scale (1=no problem, 5=very big problem), remained stable compared to the previous survey period two years earlier. The average problem size was M=2.13. Likewise, the problem due to the overall financial situation was measured on the same Likert scale in sports club surveys in Switzerland (Lamprecht et al., 2012, 2017) and in a comparative study among European sports clubs from ten different countries (Breuer et al., 2017). In Switzerland, the latest nationwide sports club survey (Lamprecht et al., 2017) reports that difficulties due to the overall financial situation are not a country-wide problem for sports clubs, with clubs being engaged in competitive sports reporting on average larger financial issues. An average of 8% reported a big or very big problem due to the financial situation, and 18% reported a medium-sized problem. In the comparative European sports club study (Breuer et al., 2017), the problem due to the financial situation was perceived largest in clubs in Hungary (M=3.6), Poland

(M=3.5), and Spain (M=2.9), while sports clubs from Flanders (Belgium) rated the perceived size of the problem due to the club's financial situation lowest (M=1.9).

Further studies in the European context found that sports clubs in Scotland were frequently financially underdeveloped, which was reflected by 41% of the surveyed clubs stating they have financial difficulties (Allison, 2001). A British survey on sports clubs by the Sport and Recreation Alliance (SRA, 2013) reported that 52% of the clubs saw a challenge in accessing funding within the next two years and 48% found a challenge in generating sufficient income. For 41% of the clubs, keeping financial sustainability was an issue (SRA, 2013). The latest sports club survey in Great Britain (SRA, 2018) found that 44% of the clubs rated increasing costs as a potential challenge, and 37% saw difficulties accessing sufficient funding. While the studies described provide a rough overview of the clubs' financial situation, it remains unclear on what basis club representatives come to the assessment of the financial situation. Therefore it is necessary to look at other objective financial measures.

6.2.2 Basic objective financial measures

Some studies report basic objective financial measures such as the annual budget, which reflect the particular situation of nonprofit sports clubs. Specifically, sports clubs do not have to follow similar strict accounting standards as for-profit organisations (Sigloch, 2005), and clear financial information is often missing (Winand et al., 2012). Therefore, available objective financial data is usually limited to the annual budget, i.e., annual revenue and expenses. Likewise, basic objective measures mainly reflect income and cost categories (Breuer & Feiler, 2020; Lamprecht et al., 2017) as well as the share of clubs that are able to break even (e.g., Breuer et al., 2017; SRA, 2018) or have a financial deficit (Lamprecht et al., 2017). Breaking even here means that total revenue exceeds, or equals, total expenses while having a deficit reflects a negative balance.

From a theoretical point of view, sports clubs have fewer incentives for complex financial management than for-profit enterprises, including more sophisticated financial measures. Due to the non-distribution constraint (Hansmann, 1980), clubs are allowed to make profit, but they are not allowed to distribute it, i.e. financial surpluses must be reinvested in the organisation. Therefore, reaching at least a balanced budget is a minimum requirement for clubs to remain financially stable (Coates & Wicker, 2017).

Study results from Germany (Breuer & Feiler, 2020) show a slight decrease (-4.3%) in the share of clubs that were able to break even (72.5%) between 2014 and 2016. In Switzerland, one-third of surveyed clubs had a negative financial balance in 2016. Moreover, the financial situation of sports clubs in Switzerland slightly

worsened between 2010 and 2016 since the share of clubs with a deficit of more than 50 CHF per active member increased in this period from 12% to 15% (Lamprecht et al., 2017). In a comparative European study, the share of clubs with a negative balance was highest in Switzerland, while only about 15% of sports clubs in Flanders reported a negative profit and loss account (Breuer et al., 2017). The latest British sports club survey 2017/2018 showed that 22% of clubs reported a deficit over the past year, which was a slight decrease compared to 2013. More than half of clubs (55%) reached a surplus (a slight increase compared to five years earlier). On the other hand, fewer clubs were able to break even (21%) than in 2013 (28%), suggesting that these clubs' financial situation had worsened (SRA, 2018).

Turning to studies from outside Europe, an analysis of annual reports of sports organisations in New Zealand over a period of at least two years show that 44% of sports clubs achieved a surplus, while one third suffered a deficit and about 23% were able to break even. This finding was driven by 45% of clubs reporting an increase in revenue and 51% reporting an increase in expenses (Cordery & Baskerville, 2010a). Previous research in Canada examined the development of sports and recreation organisations' annual revenues and expenses but did not estimate break-even measures (Lasby & Sperling, 2007).

While the financial measures described above provide a more comprehensive picture of the financial situation than subjective measures, they still cannot offer a deeper insight into the clubs' finances. To investigate organisations' financial health more adequately, more advanced objective financial measures such as revenue diversification are necessary (Young, 2007). Advanced measures are more complex in their calculation and therefore capture more comprehensive financial constructs.

6.2.3 Revenue diversification measures

Nonprofit organisations generate revenue from various sources (Chang et al., 2018). Theoretically, different approaches have been used to explain the composition of nonprofit income portfolios (Chang & Tuckman, 1994; Kearns, 2007). For example, portfolio theory, which stems from the general finance literature (Markowitz, 1952), claims that any given revenue stream is associated with an expected return and the related risk. Some revenue streams are associated with lower risk levels than others, and the aim is to reach a diversified income portfolio to minimize financial risk (Kearns, 2007). Revenue concentration (CONC) is usually measured by the Hirschman-Herfindahl index, which is calculated by adding up the squared shares of each revenue category (Chang & Tuckman, 1994). Substracting the value from one yields the revenue diversification measure.

Portfolio theory has previously been applied to nonprofit organisations to investigate financial stability by Kingma (1993). He used portfolio theory to model an

optimal revenue mix to minimize financial risk. He found that neither complete concentration on one revenue source nor total diversity of funding sources would mitigate financial risk. Thus, he concluded that each nonprofit should carefully find the correct level of revenue diversification by considering each revenue for itself and covariances between the revenue sources. Previous general nonprofit research investigating revenue diversification came to mixed results: While some studies (e.g., Carroll & Stater, 2009; Chang & Tuckman, 1994; Froelich, 1999; Greenlee & Trussel, 2000) found positive effects of revenue diversification on financial health, other studies reported instead that revenue concentration was beneficial for increasing total revenue over time (Chikoto & Neely, 2014) and for lowering administrative and fund-raising expenses (Frumkin & Keating, 2011).

Nonprofit sports organisations differ in their income portfolio from nonprofits in other sectors. For instance, nonprofit sports clubs generate larger shares of revenue from membership fees but often have smaller shares of donations and subsidies within their revenue portfolio (Gumulka et al., 2005; Lasby & Sperling, 2007; Priemer et al., 2016). On the other hand, the revenue portfolio of nonprofit sports clubs is often more diversified than that of nonprofits in other sectors, meaning sports organisations are able to generate revenue from more income sources (Chang & Tuckman, 1994). This variety of revenue includes, among others, membership and admission fees, public subsidies, donations, service fees from members and non-members, and sponsorship income (Wicker et al., 2012). Like for general nonprofits, revenue diversification was found to be important for decreasing financial risk and vulnerability of golf clubs (Cordery et al., 2013), may improve the financial situation of football clubs (Cordery et al., 2018), decrease revenue volatility of nonprofit sports clubs (Wicker et al., 2015), and may have positive effects on total revenue, profit, and investments of sport governing bodies (Wicker & Breuer, 2014).

Overall, revenue diversification measures have been widely employed (Hung & Hager, 2019) as they provide valuable information, but they have at least one shortcoming: They only consider organisational revenues and neglect costs. Therefore, as Chang and Tuckman (1994) suggested, more complex and advanced objective financial measures are required, including costs and other financial information like assets or liabilities.

6.2.4 Financial health/vulnerability measures

An organisation's financial situation is often described with the concepts of financial health or vulnerability (Prentice, 2016b; Tuckman & Chang, 1991). Financial vulnerability means that an organisation "is at risk of being unable to meet its financial obligations" (Coates & Wicker, 2017, p. 126), implying that current obligations cannot be paid with existing assets. A common approach to monitoring

financial health and vulnerability is ratio analysis, which uses different financial ratios to reflect organisations' financial situations and potential problems (Greenlee & Tuckman, 2007). In this regard, constructs such as liquidity, solvency, margin, and profitability are reflected by various financial measures, thereby approximating an organisation's financial health or vulnerability (Prentice, 2016b). Further, financial ratios can be used to predict an organisation's future financial health or vulnerability (Greenlee & Tuckman, 2007).

Importantly, not all measures assessing the financial vulnerability of for-profit organisations can easily be adapted or are useful to nonprofit organisations (Cordery et al., 2013; Winand et al., 2012). Therefore, other measures are required for nonprofits, and existing studies have used different approaches to determine whether an organisation is financially vulnerable, e.g., by a reduction in programme expenditure (Greenlee & Trussel, 2000; Tuckman & Chang, 1991) or a reduction in net assets over three years (Trussel, 2002). By applying these approaches, different financial ratios have been used to assess financial vulnerability.

In their seminal study, Tuckman and Chang (1991) defined financial vulnerability as a reduction in programme expenditure and modified four accounting ratios to investigate which nonprofit organisations were more vulnerable than others. These ratios reflected, in addition to revenue concentration (CONC; modified Hirschman-Herfindahl Index for revenue concentration), a ratio of EQUITY (assets less liabilities) relative to total revenue (equity divided by total revenue), administrative expenses (EADMIN; administrative expenses divided by total expenses), and operating margin (MARGIN; revenues less expenditures divided by revenues). The authors expected that small equity ratios and a lack of revenue diversity are indicative of high financial vulnerability, while high proportions of administrative expenses and a high margin reflect a less financially vulnerable organisation. Greenlee and Trussel (2000) modified one of Chang's and Tuckman (1991) ratios. Instead of using administrative expenses relative to total expenses, they used administrative expenses relative to total revenue (ADMIN), suggesting that a high ratio is indicative of low financial vulnerability. Trussel (2002) further expanded these measures by replacing the equity ratio with the debt ratio (DEBT; total liabilities divided by total assets), suggesting that high debt levels indicate high financial vulnerability.

Within sports, only a few studies have assessed organisations' financial vulnerability (e.g., Cordery et al., 2013, 2018). This scarcity of research is likely due to the limited availability of general financial data to rate the sports clubs' financial situation due to less strict accounting standards (Sigloch, 2005; Sport New Zealand, 2019). For example, total assets are commonly used in the for-profit and nonprofit context to measure constructs such as liquidity, profitability, and solvency (Prentice, 2016b). However, information on assets is usually not available in the nonprofit sports club context (Wicker & Breuer, 2011).

Cordery et al. (2013) examined the financial vulnerability of amateur football and golf clubs in New Zealand. The authors developed three conceptual models of financial vulnerability (programme expenditure, net assets, and net earnings) and used financial measures (ADMIN, CONC, DEBT, EADMIN, EQUITY, MARGIN) from prior studies (Carroll & Stater, 2009; Chang & Tuckman, 1991; Greenlee & Trussel, 2000; Hager, 2001; Trussel, 2002) to assess financial vulnerability. In addition to these existing general measures, Cordery et al. (2013) created new financial measures related to the sports context: These variables reflected playing expenses in relation to total expenditure (EPLAY), property expenses in relation to total expenditure (EPROP), and membership fees in relation to total revenue (MEMBER). The study showed that revenue diversification was not a significant predictor of financial vulnerability in football clubs but was in golf clubs under the net earnings definition of financial vulnerability. Overall, reliance on external rather than member-based revenue, large amounts of expenses and increasing debt were associated with clubs' financial vulnerability. The authors suggested that their financial measures need to be further tested in other countries and sports, and for different financial outcomes.

6.2.5 Synthesis

Financial problems of nonprofit sports clubs have been investigated in different sports clubs' studies around the world. However, many studies are descriptive and only use basic subjective and basic objective financial measures (e.g., Allison, 2001; Breuer et al., 2017; Lamprecht et al., 2017; SRA, 2018). Only a few studies examined more advanced, i.e. more complex, financial measures for investigating revenue diversification and financial vulnerability. However, sector-specific analyses of revenue diversification and financial vulnerability are required (Chang et al., 2018) because the financial structure of nonprofit sports organisations often differs from their counterparts in other sectors. The present study aims to address this research gap and takes up the call by Cordery et al. (2013) for further research in this area by applying not only basic objective, but also more advanced financial measures of revenue diversification and financial vulnerability to nonprofit sports clubs. These measures will be related to the subjectively rated financial situation of sports clubs.

6.3 Method

6.3.1 Data base

This study used data from nationwide online surveys of German nonprofit sports clubs conducted every two years since 2005. Each survey consists of core questions

about the number of members, provided types of sports, organisational problems, volunteers, and finances. In all waves, the clubs' email addresses were provided by the 16 state sports confederations to invite the sports clubs to participate in the surveys. Each club received an invitation email with a personalised link to the surveys so that interruptions were possible, e.g., to search for information on revenues and expenses that participants did not have directly at hand. Moreover, this procedure allowed clubs to forward the link to other persons within their club, e.g., the treasurer. The clubs had about three months to complete the survey in each wave.

A panel data set of four consecutive waves from 2009 to 2015 was constructed for the present study. These four waves were chosen since the relevant variables necessary for the analyses were included in these waves. As financial information is a key aspect of this study, the dataset included only clubs that gave complete information on the clubs' revenues and expenses in all four waves and that had taken part in at least three consecutive waves. A total of n=2,859 clubs are available for the analyses, including n=1,947 and n=912 clubs participating in three and four consecutive waves, respectively.

The resulting sample size indicates that non-responses might be an issue. Therefore, t-tests were conducted to compare the mean of the dependent variable (subjectively perceived financial situation) in the sample (n=2,859) and the full data set of clubs from all four waves (n=50,110). Since the present sample is part of the full data set, it was compared to the rest of the sample of n=47,251 clubs. The t-test revealed that clubs in the sample rated the subjectively perceived problem level of the financial situation significantly lower than clubs in the larger sample (2.00 vs. 2.25; $p < .001$). The same was true when comparing the sample to clubs that have taken part in at least three consecutive waves but have not given full financial information (n=10,595; 2.00 vs. 2.21; $p < .001$). The statistically significant differences in mean perceptions of the financial situation in these tests may be a result of the large sample sizes but may also signal the presence of some unaccounted influence on the decision to respond. Thus, these discrepancies indicate caution when interpreting the results.

6.3.2 Variables and measures

In the first research question (RQ1), the outcome of interest is the club's perceived financial situation. In the survey, club officials were asked to rate the club's financial situation on a 6-point scale ranging from 1=no problem to 6=existential problem (*p_fin_sit*). As financial information within nonprofit sports clubs is limited, specific financial measures such as equity and debt could not be calculated. However, all measures that were possible to calculate based on the available revenue and expen-

diture data were calculated, including basic objective and more advanced objective financial measures introduced earlier (e.g., Cordery et al., 2013; Greenlee & Trussel, 2000; Prentice, 2016b; Tuckman & Chang, 1991). Overall, the survey provided 22 revenue categories (e.g., membership fees, subsidies, donations, sponsorship income, etc.) and 18 expenditure categories (e.g., personnel costs, facility costs, sporting events and travel costs, etc.). Clubs were asked to fill in whether they had revenue and expenses in the given categories and if so, they were asked to provide the respective amounts. This information on revenue and expenditure categories served as the basis for calculating the different financial measures.

Table 6.1 gives an overview of these financial measures. First, basic objective financial measures, including break-even, were constructed. Second, more advanced objective financial measures were computed. Revenue diversification (*rev_divers*) was assessed by the Hirschman-Herfindahl index (HHI), reflecting the sum of squared shares of the clubs' revenue sources. As the HHI measures revenue concentration, 1-HHI gives a revenue diversification measure. This measure has previously been used in the nonprofit (sports) context (e.g., Carroll & Stater, 2009; Chang & Tuckman, 1994; Feiler & Breuer, 2021; Tuckman & Chang, 1991; Wicker & Breuer, 2014; Wicker et al., 2013). Its squared term (*rev_divers_sq*) was also included to reflect a potential non-linear relationship between revenue diversification and perceived financial problems, which is a new approach compared to previous studies in the sports context.

The next set of measures assesses financial vulnerability. The first measure relates to solvency, namely the interest coverage ratio (ICR). This ratio measures the ability of a club to meet interest obligations (Coates & Wicker, 2017; Sport New Zealand, 2019) and is suggested for assessing sports clubs' financial health (Government of South Australia, 2017). With a higher ICR, the club's likelihood of meeting its interest expenses increases. The ratio is computed by dividing earnings before interest and taxes (EBIT) by interest expenses for the same period. Missing values in the ICR resulting from cases with interest expenses equal to zero were set to zero. Afterwards, two variables were created, indicating whether the ICR was positive or negative. These variables were then multiplied with the ICR variable, and both were included as regressors in the analysis (*positive_icr* and *negative_icr*). This procedure allowed the influence of positive and negative interest coverages to differ. Moreover, those observations with no interest expenses contributed nothing in either case but did not get dropped from the analysis.

Table 6.1 Overview of variables.

Variable	Description
Dependent variables	
p_fin_sit	Problem with the financial situation (1=no problem, 6=existential problem)
change_fin_sit	Change in the financial problem from one period to the next (0=worsened, 1=no change, 2=improved)
Financial measures	
breakeven	Clubs with equal or more revenue than expenses (1=yes)
rev_divers	Revenue diversification (0=perfect concentration, 1=perfect diversification)
rev_divers_sq	Squared term of revenue diversification
positive_icr	Interest coverage ratio>0
negative_icr	Interest coverage ratio<0
margin	Net revenue relative to total revenue
admin	Administrative expenses relative to total revenue
exp_sports	Sport-related expenses relative to total expenses
exp_facilities	Facility-related expenses relative to total expenses
rev_member	Membership revenue relative to total revenue
Controls	
p_comp_club	Problem due to local competition from other sports clubs[1]
p_comp_comm	Problem due to local competition from commercial sports providers[1]
p_bureaucracy	Problem due to laws, orders, directives[1]
members_total	Total number of members in the club
sports	Total number of sports provided by the club
public_facilities	Club uses public facilities (1=yes)
own_facilities	Club is in possession of own sports facilities (1=yes)
phil_inexpensive	Our club offers an inexpensive opportunity to practice sports[2]
phil_volunteer	Our club should only be run by volunteers[2]
phil_lowincome	Our club offers sports for persons with a low income[2]
phil_quality	Our club especially cares about the quality of the sports supply[2]
phil_tradition	Our club sets high value on tradition[2]
phil_competitive	Our club is proud of its success in competitive sports[2]
phil_strategy	Our club has a strategic concept[2]
phil_youngtalent	Our club is highly engaged in the promotion of young talent[2]
resp_board	Survey completed by a board member (1=yes)
resp_paidstaff	Survey completed by paid staff (1=yes)

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Table 6.1 Continued

Variable	Description
resp_volunteer	Survey completed by a volunteer not belonging to the board (1=yes)
resp_other	Survey competed by a person with another role in the club (1=yes)
year_dummy	Year of survey (reference category: 2009)

Note: [1]Problems were measured on a 6-point scale from 1=no problem, 6=existential problem; [2]Philosophy was measured on a 5-point scale from 1=do not agree at all to 5=totally agree.

Another financial vulnerability ratio related to financial balance, namely operating margin (*margin*), which has been used before (Greenlee & Trussel, 2000; Tuckman & Chang, 1991), is integrated into the analyses. This ratio was calculated by subtracting total expenses from total revenue and dividing the result by total revenue. The measure displays the level of surplus generated from total revenue. In the sports context, the measure has previously been applied to assess nonprofit sports federations' performance (Winand et al., 2012) and the financial vulnerability of sports clubs in New Zealand (Cordery et al., 2013).

Greenlee and Trussel (2000) introduced another measure of vulnerability to reflect potentially excessive administrative expenses by relating them to total revenue (*admin*). Cordery et al. (2013) applied this variable in the sports club context.

In addition to the described ratios from general finance, further sport-specific measures were adapted from Cordery et al. (2013). Instead of EPLAY, which reflected playing expenses relative to total expenditure, the underlying study used a ratio that reflects expenses for sports operations relative to total expenses (*exp_sports*). Expenses for sports operations is the sum of expenses for coaches, athletes, sports equipment, travel and sporting events. Moreover, instead of EPROP from Cordery et al. (2013), a measure for sports facility expenses (own facilities and rented facilities) relative to total expenses (*exp_facilities*) was used. Lastly, the ratio of membership fees relative to total revenue (*rev_member*) was added to the analyses.

Finally, control variables were added since other factors might also affect clubs' financial problems (Prentice, 2016a; Wicker & Breuer, 2013). Such factors included club size captured by membership (*members_total*) and sports offered (*sports*), infrastructure (*public_facilities* and *own_facilities*), bureaucratic burdens (*p_bureaucracy*) and club philosophy (*phil_inexpensive*, *phil_volunteer*, *phil_lowincome*, *phil_quality*, *phil_tradition*, *phil_competitive*, *phil_strategy*, *phil_youngtalent*) as well as competition from other clubs (*p_comp_club*) or commercial providers (*p_comp_comm*). The analysis also controls for the survey year and the person completing the survey, including a board member (*resp_board*), paid staff

(*resp_paidstaff*), a volunteer not belonging to the board (*resp_volunteer*), or a person with another role in the club (*resp_other*). More than one person might have completed the survey.

For answering the second research question (RQ2), the outcome variable reflects changes in the perceived financial situation of the club from one survey wave to the next. Since the aim was to investigate the impact of differences in financial measures on changes in the clubs' perceived financial situation, the dependent variable (*change_fin_sit*) has three potential outcomes: a worsening of the perceived financial situation, no change in the financial situation, and an improvement of the financial situation.

6.3.3 Data analyses

Since the sample differed in club size from the total population of sports clubs in Germany, weights were calculated based on club size to improve the sample's representativeness. Weights were calculated for five different groups of clubs, namely clubs with ⩽100 members, clubs with between 101 and 300 members, between 301 and 1,000 members, between 1,001 and 2,500 members, and clubs with over 2,500 members. Since club size also differed between the 16 German states, the weighting procedure was conducted for all 16 states. The empirical analyses in this study are based on the weighted sample.

The data analyses consisted of descriptive statistics and two regression models to answer the research questions. For answering RQ1, an ordered logistic regression analysis with the clubs' perceived financial situation as the dependent variable was applied. Financial measures and control variables (Table 6.1) served as explanatory variables (Model 1) and were all integrated with a one-wave time lag (denoted with $_{t\text{-}1}$). The regression equation for Model 1 reads as follows:

$$p\_fin\_sit_t = ß_0 + ß_1 rev\_divers_{t\text{-}1} + ß_2 rev\_divers\_sq_{t\text{-}1} + ß_3 positive\_icr_{t\text{-}1} + ß_4 negative\_icr_{t\text{-}1} + ß_5 margin_{t\text{-}1} + ß_6 admin_{t\text{-}1} + ß_7 exp\_sports_{t\text{-}1} + ß_8 exp\_facilities_{t\text{-}1} + ß_9 rev\_member_{t\text{-}1} + controls_{t\text{-}1} + year + \epsilon$$

For answering RQ2, a multinomial logit model with the change in the financial situation between survey waves representing the outcome variable was applied (Model 2). Multinomial logit was preferred over ordered logit since the categories of the outcome variable were not necessarily ordinal (Long & Freese, 2014). In this model, the independent variables reflect differences in financial measures between waves. The regression equation for Model 2 reads as follows:

$$change\_fin\_sit = ß_0 + ß_1 rev\_divers\_diff + ß_2 icr\_diff + ß_3 margin\_diff + ß_4 admin\_diff + ß_5 exp\_sports\_diff + ß_6 exp\_facilities\_diff + ß_7 rev\_member\_diff + controls\_diff + year + \epsilon$$

The present analyses might be affected by econometric issues such as multicollinearity, endogeneity, and unobserved heterogeneity. The possibility of multicollinearity of the explanatory variables was assessed using correlation analysis. The correlation analysis revealed a significant positive high correlation (Cohen, 1988) between breakeven and operating margin (r=0.62***). This result was not surprising since the calculation of both measures includes the difference between revenue and expenditure. Therefore, it was decided not to include both measures in the regression analyses to avoid potential multicollinearity issues. Hence, breakeven was removed as this is a less advanced financial measure than the operating margin. After this removal, there were no problems with multicollinearity.

Potential endogeneity was addressed by using the data's panel structure and lagged independent variables in Model 1. This approach helps deal with reverse causality issues. For example, clubs with larger financial problems might diversify revenue as a strategy to address this problem, meaning that revenue diversification can be not only a source of a poor financial situation but also an outcome. Therefore, variables with a one-wave time lag were integrated into the model. Thus, the results of Model 1 reflect the influence of the financial measures on perceived financial problems in the subsequent period, i.e., two years later. Addressing endogeneity by lagged variables has previously been applied in nonprofit sports research (Feiler et al., 2019a) and is common in general nonprofit financial health analyses (Greenlee & Tuckman, 2007).

The models were estimated with robust standard errors. Standard errors were clustered by club in Model 1 to account for unobserved heterogeneity across clubs, meaning that club-specific characteristics that are constant over time need to be addressed. Using cluster-robust standard errors assumes that observations are independent across clubs but not necessarily within clubs (Andreß et al., 2013).

6.4 Results and discussion

Table 6.2 displays the summary statistics. On average, clubs rate the problem of the financial situation 1.99 on a 6-point scale. Looking at the answer categories, 3.3% of clubs reported the financial situation as an existential problem, and a further 6.8% stated that the problem was big or very big. 18.0% reported a medium-sized problem, and 25.2% of the clubs had a small problem. Almost half of the clubs (46.7%) did not perceive a problem due to the financial situation.

Table 6.2 Summary statistics.

Variable	Mean	SD	Min	Max
p_fin_sit	1.985	1.211	1	6
change_fin_sit				
worsened	.195	-	-	-
no change	.567	-	-	-
improved	.238	-	-	-
breakeven	.707	-	0	1
rev_divers	.309	.202	0	.734
rev_divers_sq	.136	.132	0	.538
positive_icr	9.186	220.385	0	7,177.667
negative_icr	-10.293	431.243	-18,964.00	0
margin	.046	.289	-2.344	.748
admin	.053	.089	0	1.303
exp_sports	.402	.270	0	1
exp_facilities	.178	.205	0	1
rev_member	.567	.269	.004	1
p_comp_club	1.883	1.155	1	6
p_comp_comm	1.586	1.004	1	6
p_bureaucracy	2.591	1.424	1	6
members_total	254.265	496.599	5	10,211
sports	3.057	3.596	1	43
public_facilities	.653	-	0	1
own_facilities	.388	-	0	1
phil_inexpensive	4.487	.844	1	5
phil_volunteer	4.359	.928	1	5
phil_lowincome	4.163	.988	1	5
phil_quality	4.055	.887	1	5
phil_tradition	3.439	1.120	1	5
phil_competitive	3.361	1.457	1	5
phil_strategy	3.512	1.078	1	5
phil_youngtalent	2.566	1.248	1	5
resp_board	.970	-	0	1
resp_paidstaff	.021	-	0	1
resp_volunteer	.033	-	0	1
resp_other	.010	-	0	1

Turning to financial measures, 70.7% of clubs were able to break even. This share is comparable to Swiss sports clubs (Lamprecht et al., 2017) but slightly lower than among British clubs (SRA, 2018). The average positive interest coverage was 9.19, and the average negative interest coverage was -10.29. Average revenue diversifica-

tion was 0.31, meaning that revenues were concentrated rather than diversified in the sample. A similar value for revenue diversification of nonprofits was reported in previous research (Carroll & Stater, 2009). However, revenue diversification was slightly higher in earlier sports club studies, ranging between 0.473 (Wicker et al., 2013), 0.482 (Wicker & Breuer, 2013), 0.525 (Wicker et al., 2015), and 0.545 (Cordery et al., 2018). Possible reasons for these differences might be different samples from different years and weighting of the sample by club size in the underlying study.

On average, the operating margin amounted to 4.6%, which is slightly higher than the median value of 2.8 reported by Winand et al. (2012) for sports federations. A mean value was neither reported in their study nor in the study by Cordery et al. (2013). Administrative expenses made up on average 5.3% of total revenue, while sports-related expenses made up slightly more than 40% of total expenses. On average, facility expenses accounted for 17.8% of the clubs' total expenses. These results are similar to the respective expenditure shares in Swiss sports clubs (Lamprecht et al., 2017). More than half of all clubs' revenue (56.7%) was generated from membership fees. This result is in accordance with prior studies (e.g., Priemer et al., 2016) and underlines the importance of membership fees for sports clubs (Feiler et al., 2019a).

Pertaining to the first research question, the ordered logistic regression results show that out of the nine financial measures included, only a few were significantly related to the outcome variable (Table 6.3). What should be considered here is that the outcome variable in the underlying study is a subjective rating of the financial situation, while most existing research (e.g., Cordery et al., 2013; Greenlee & Trussel, 2000; Trussel, 2002) on financial vulnerability used objectively measured dependent variables. While Cordery et al. (2013) called for adapting the dependent variable in sport-specific nonprofit financial models, it is important to consider the various definitions when comparing results here to those in the mentioned literature.

In Model 1, the operating margin showed a significant negative effect. This result means that clubs with a higher operating margin perceive smaller financial problems. Thus, clubs seem to perceive lower financial troubles as long as they have more revenue than expenses at their disposal, which is considered a prerequisite for staying financially stable (Coates & Wicker, 2017) and is in line with theoretical assumptions regarding the non-distribution constraint (Hansmann, 1980).

The marginal effects in Table 6.4 show that the probability of stating a problem level of 6 (existential problem) decreases by 1.3 percentage points with a small increase in the margin; it also shows that the probability of the club representative saying there are no financial problems rises by 9.9 percentage points with a small increase in margin. The effect of margin is in line with findings by Greenlee and Trussel (2000) and Trussel (2002) that higher margins reduce financial vulnerability, but contradicts the findings of Cordery et al. (2013), at least for football clubs,

where a larger margin is statistically significantly linked to greater financial vulnerability under the playing expenses relative to revenue definition of vulnerability though not under either of the other two definitions of financial vulnerability or for golf clubs at all. Overall, the influence of margin on the perceived financial situation is largely consistent with the existing literature but with a caveat.

Table 6.3 Ordered logistic regression (Model 1).

	Model 1: p_fin_sit	
Variable	Coef.	z-value
rev_divers_{t-1}	-.263	-.26
$rev\_divers\_sq_{t-1}$	2.475	1.68
$positive\_icr_{t-1}$	-.003	-.84
$negative\_icr_{t-1}$	.015	1.37
$margin_{t-1}$	-.453*	-2.46
$admin_{t-1}$	-.769	-1.03
exp_sports_{t-1}	-.188	-.62
$exp\_facilities_{t-1}$	.784*	2.34
rev_member_{t-1}	.272	1.02
control variables	included	
year dummies	included	
/cut1	2.045	
/cut2	3.241	
/cut3	4.683	
/cut4	5.788	
/cut5	5.936	
Log pseudolikelihood	-2,042.11	
Pseudo R^2	.0615	
Wald chi^2	165.56	
p	<.001***	
Observations	1,676	

Note: *p < .05; **p < .01; ***p < .001; displayed are the unstandardized coefficients; robust standard errors clustered by club.

Table 6.4 also reports the marginal effect of revenue diversity simultaneously with its squared term on the perceived financial situation of sports clubs, indicating that the marginal effect of increased diversity is different across the six possible values of the perceived financial situation of the club. Interestingly, additional diversity reduces the likelihood that clubs report no financial problems, while the marginal effect of greater diversity is to raise the likelihood of the options indicating worse perceived financial health. Importantly, increased diversity has its largest increase in

probability for perception level 3 (medium-sized problem). The question is whether the increased diversity leads to an improved or worsened perception, an issue addressed in Tables 6.5 and 6.6.

Table 6.4 Marginal effects (Model 1).

	p_fin_sit					
Variable	1	2	3	4	5	6
rev_divers_{t-1}	-.2702***	.0259	.1260***	.0683***	.0060*	.0440**
$positive\_icr_{t-1}$	.0008	-.0001	-.0003	-.0002	-.0000	-.0001
$negative\_icr_{t-1}$	-.0034	.0006	.0015	.0007	.0001	.0004
$margin_{t-1}$	.0990*	-.0188*	-.0446*	-.0211*	-.0018	-.0128*
$admin_{t-1}$	.1683	-.0319	-.0758	-.0358	-.0030	-.0217
exp_sports_{t-1}	.0411	-.0078	-.0185	-.0088	-.0007	-.0053
$exp\_facilities_{t-1}$	-.1714*	.0325*	.0772*	.0365*	.0031	.0221*
rev_member_{t-1}	-.0594	.0113	.0268	.0126	.0011	.0077

Note: *p < .05; **p < .01; ***p < .001.

Greenlee and Trussel (2000) provide evidence that financial concentration, the opposite of diversity, raises the probability of a nonprofit being financially vulnerable. Likewise, in the sports club context, Cordery et al. (2013) found a significant negative effect of revenue concentration on the net earnings indicator of financial vulnerability for golf clubs but not for football clubs or either of the other two measures of vulnerability. Contrary to Cordery et al. (2013) and similar to the results here, Wicker and Breuer (2013) found that greater revenue concentration (less diversification) reduced perceived financial problems. Wicker and Breuer (2013) estimated a least squares model, with the dependent variable taking on five integer values, and did not account for the non-linear effects of revenue concentration. Moreover, no other financial measures were applied in their study. Consequently, the results here provide greater nuance on the influence of revenue diversity and underpin that sports clubs seem to feel financially more comfortable with less diversified revenues. Focusing on fewer income sources, especially membership fees, as their key and projectable income source (Wicker et al., 2012), seems to give clubs more security than managing a diversified income portfolio, which is associated with greater transaction costs (Chikoto & Neely, 2014; Frumkin & Keating, 2011). This argumentation is also in line with portfolio theory which claims that each income source is associated with a particular risk (Markowitz, 1952).

Several variables in the analysis are specific to the sports clubs' context. Only one of these is significantly related to the perceived financial situation: the ratio of facility expenses to total expenses. The positive sign on the coefficient means that

club officials perceive greater financial problems in clubs where facility expenses are a large share of total expenses. A similar effect was found by Cordery et al. (2013) for property expenses in football clubs in the net earnings model. Facility expenses are regularly among the largest cost categories within nonprofit sports clubs (Breuer & Feiler, 2020; Lamprecht et al., 2017). Such expenses include costs for own facilities, but also rent for public sports facilities. Own facilities need maintenance and possibly repairs which might give club representatives feelings of financial burdens. Therefore, clubs might fear financial problems if facility expenses make up larger shares of total costs. A problem-increasing effect of own facilities on the financial situation of clubs has previously been detected (Wicker & Breuer, 2013).

Evidence presented so far has indicated that margin, revenue diversity, and facilities expenditures predict perceived financial problems of a nonprofit sports club, while expenditures on sports, membership revenue, administration costs, and neither positive nor negative interest coverage have a significant influence on perceived financial problems. Perhaps changes in those variables provide useful signals about how perceptions have changed over time, which is addressed in RQ2. Indeed, the descriptive results show that nearly 20% of the sports clubs reported a worsening of the financial situation over time, while almost 24% perceived an improvement. More than half of the clubs reported no change in their financial situation (Table 6.2).

Table 6.5 reports the results from the multinomial logit model in which the dependent variable indicates an improvement, a worsening or no change in the perceived financial situation of the sports club, and the explanatory variables are the changes from survey to survey in the explanatory variables. Table 6.6 presents marginal effects, the change in the probability the club reports a worsening, improvement, or no change in the perception of the financial situation. Interestingly, changes in financial variables within a club over time have no impact on the probability of a worsening perception of the club's financial situation.

On the other hand, changes in two financial variables affect the probability club officials report an improvement in the club's financial situation. An increase in revenue diversification raises the probability of reporting an improvement in the financial situation of the club. Thus, over time, the effect of revenue diversity differs from looking at a fixed point in time. According to Chikoto and Neely (2014), a strategy to both reach financial stability and growth could be to concentrate revenues first and later diversify revenue to a certain extent.

Table 6.5 Multinomial logistic regression results (Model 2).

	Model 2: change_fin_sit			
	worsened		improved	
Variable	Coef.	*z-value*	Coef.	*z-value*
rev_divers_diff	-.304	-.55	.903	1.88
icr_diff	.000	.78	.000	.95
margin_diff	.068	.31	.018	.11
admin_diff	-.944	-1.07	-1.927**	-2.88
exp_sports_diff	.346	.90	-.234	-.69
exp_facilities_diff	.364	.80	.124	.28
rev_member_diff	.519	1.19	.459	1.17
control variables	included			
year dummies	included			
Log-pseudolikelihood	-1,417.77			
Pseudo R^2	.0597			
Wald chi^2	170.43			
p	<.001***			
Observations	1,527			

Note: *p < .05; **p < .01; ***p < .001; model estimated with robust standard errors; reference category: no change in the financial situation.

At the same time, the results show that an increase in spending on administration as a share of revenues from one survey wave to the next reduced the probability of reporting an improvement in the financial situation relative to the reference group of no changes in financial problems. A negative impact of ADMIN on financial vulnerability was also found by Cordery et al. (2013) for football clubs in New Zealand under the net earnings model. However, the present result contradicts findings from the general nonprofit context (Greenlee & Trussel, 2000). Nonprofit sports clubs with high administrative expenses are likely to employ paid staff. However, the core resource of nonprofit sports clubs are volunteers and conflicts between voluntary and paid staff might occur (Cuskelly, 2004). If volunteers as club representatives fear that too much money is spent on paid employees, they might fear increasing financial problems.

Collectively, the results show that operating margin, revenue diversity, and facility expenses are related to the subjectively perceived financial situation of nonprofit sports clubs in some way similar, but in some way also different from studies using objective measures of financial vulnerability (Cordery et al., 2013; Greenlee & Trussel, 2000; Trussel, 2002).

Table 6.6 Marginal effects (Model 2).

	change_fin_sit		
Variable	worsened	no change	improved
rev_divers_diff	-.0849	-.0823	.1672*
icr_diff	.0000	-.0000	.0000
margin_diff	.0094	-.0095	.0001
admin_diff	-.0561	.3431*	-.2870**
exp_sports_diff	.0618	-.0067	-.0551
exp_facilities_diff	.0488	-.0540	.0052
rev_member_diff	.0572	-.1127	.0554

Note: *p < .05; **p < .01; ***p < .001.

Looking at changes over time, increased spending on administration from one period to the next and greater diversity in the sources of revenues explain changes in the perceived financial problem level. Thus, clubs' rating of the financial situation seems to be influenced by different factors at a point in time rather than over time.

Interestingly, no other financial measures were significantly related to perceived financial problems. An explanation might be that the margin, revenue diversity, and expenses for sports facilities and administration are easy to review and intuitive to understand for club representatives. In contrast, more complex measures, such as the interest coverage ratio, are likely not intuitive for clubs. Moreover, considering the nonprofit status of sports clubs, finances are a means to an end for clubs (Thiel & Mayer, 2009) in contrast to for-profit organisations that follow profit-maximising goals (Coates & Wicker, 2017). Therefore, instead of considering complex financial measures to rate the financial situation, clubs refer to obvious and easy-to-calculate measures.

6.5 Conclusion

This study aimed to investigate which objective financial measures best reflect the subjectively rated financial situation of nonprofit sports clubs. The results show that operating margin, revenue diversity, and a ratio specifically created for the nonprofit sports club context reflecting the proportional sports facility expenses are significantly related to subjectively perceived financial problems. Over time, a decrease in perceived financial problems is less likely to be reported when administrative expenses in relation to total revenues increase, while increasing revenue diversification is positively associated with an improved financial situation.

Based on these results, the following implications can be derived. From an empirical point of view, the study results indicate that subjective measurement scales,

such as the applied Likert scale for assessing financial problems in the present study, seem to be useful to capture phenomena to a certain extent. Since only a few objective financial measures reflected the subjectively rated financial problem level, the subjective nature of rating the items by individuals should always be kept in mind when interpreting results. Therefore, it seems useful to additionally rely on objective and advanced financial measures to get a more comprehensive picture. Ratios based on revenue and expenditure are helpful in this context and seem widely available, as previous studies have shown (e.g., Breuer et al., 2017; Lamprecht et al., 2017; SRA, 2018).

From a theoretical perspective, the study provides a comprehensive overview of different subjective and objective financial measures of nonprofit sports clubs and discusses their theoretical foundation. The central theoretical contribution is the systematic categorization of objective financial measures and their testing toward a subjective measure. Such a procedure has, to the authors' best knowledge, not been done before and is thereby a major contribution to the literature on nonprofit finance in a specific sector.

From a managerial perspective, the results suggest that sports clubs currently appear to be comfortable with basic financial measures related to revenue and expenses, including the operating margin, revenue diversity, and proportions of facility and administrative expenses. However, more complex measures (e.g., interest coverage) seem to be less used to analyse the financial situation of clubs. Therefore, it might be useful to offer support programmes from federations for clubs in terms of financial management and the application of different financial ratios and measures. Sound financial management and a detailed overview of the different financial assets are key for clubs to remain financially sustainable. This stability should also be in the interest of various stakeholders (e.g., sports federations, governmental institutions, coaches, and members), as sports clubs are guarantors for providing affordable sports opportunities for various population groups. Moreover, the results suggest that sports clubs associate financial problems with larger shares of facility and administrative expenses. To relieve sports clubs from some of these expenses, the provision of public sports facilities for free or for a small usage fee is vital for sports clubs and should be continued by municipalities. Moreover, the key human resource of sports clubs, namely volunteers, needs to be secured to save costs for expensive paid staff as clubs seem to relate financial problems with paying staff. Here, targeted support initiatives from sports governing bodies should also be installed.

This study has some limitations. First, non-responses represent an issue since only clubs that gave complete financial information could be included in the analyses. However, these clubs rated the perceived financial problem lower than clubs in the rest-sample. This fact could mean that the subjective impression of the financial situation is worse if no objective financial information is at hand or that clubs are

unwilling to report objective financial information if the perceived financial situation is rated worse. Another limitation is the limited availability of financial data in sports clubs. The applied financial measures could only be calculated based on the clubs' different income and expenditure categories. Further key figures, such as assets or liabilities, which are commonly used in financial studies in other nonprofit contexts (Prentice, 2016b), were not available. Thus, general financial measures such as equity and debt ratios could not be constructed but might contribute to a higher explained variance than in the present models, where R^2 is relatively low. In this respect, future surveys of sports clubs should collect other available financial data in addition to revenues and expenses, which would open the door for further research in this area and more advanced financial measures.

This paper contributes to the body of research on the finances of nonprofit sports clubs and helps to understand how clubs rate their financial situation. What should be considered is that the paper deals with the situation of nonprofit sports clubs in Germany before the COVID-19 pandemic. Therefore, current developments and possible impacts of the pandemic on the financial situation of clubs have not been considered. However, the overall challenges for community sports clubs worldwide caused by the pandemic are complex and context-specific (Staley et al., 2021) and need to be further investigated in future research. Therefore, it will be interesting and necessary in future studies to investigate the impact of COVID-19 on financial problems of sports clubs to see whether clubs can draw on their strengths and resources to recover (Doherty et al., 2022).

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6.6 References

Allison, M. (2001). *Sports clubs in Scotland.* SportScotland.

Andreß, H.-J., Golsch, K., & Schmidt, A. W. (2013). *Applied panel data analysis for economic and social surveys.* Springer-Verlag.

Breuer, C., & Feiler, S. (2020). *Sports clubs in Germany: Organisations and internal stakeholders. Sport development report for Germany 2017/2018 - Part 1.* Federal Institute of Sports Science.

Breuer, C., Feiler, S., Llopis-Goig, R., & Elmose-Østerlund, K. (2017). *Characteristics of European sports clubs. A comparison of the structure, management, voluntary work and social integration among sports clubs across ten European countries.* University of Southern Denmark.

Carroll, D. A., & Stater, K. J. (2009). Revenue diversification in nonprofit organizations: Does it lead to financial stability? *Journal of Public Administration Research and Theory, 19*(4), 947–966. https://doi.org/10.1093/jopart/mun025

Chang, C. F., & Tuckman, H. P. (1991). Financial vulnerability and attrition as measures of nonprofit performance. *Annals of Public and Cooperative Economics, 62*(4), 655–672. https://doi.org/10.1111/j.1467-8292.1991.tb01372.x

Chang, C. F., & Tuckman, H. P. (1994). Revenue diversification among non-profits. *Voluntas, 5*(3), 273–290. https://doi.org/10.1007/bf02354036

Chang, C. F., Tuckman, H. P., & Chikoto-Schultz, G. L. (2018). Income diversity and nonprofit financial health. In B. A. Seaman & D. R. Young (Eds.), *Handbook of research on nonprofit economics and management* (2nd ed., pp. 11–34). Edward Elgar Publishing.

Chikoto, G. L., & Neely, D. G. (2014). Building nonprofit financial capacity: the impact of revenue concentration and overhead costs. *Nonprofit and Voluntary Sector Quarterly, 43*(3), 570–588. https://doi.org/10.1177/0899764012474120

Coates, D., & Wicker, P. (2017). Financial management. In R. Hoye & M. M. Parent (Eds.), *The SAGE Handbook Of Sport Management* (pp. 117–137). Sage.

Coates, D., Wicker, P., Feiler, S., & Breuer, C. (2014). A bivariate probit examination of financial and volunteer problems of non-profit sport clubs. *International Journal of Sport Finance, 9*(3), 230–248. https://journals.fitpublishing.com/files/IJSF/IJSFpdf/eIJSF9_3_Coates.pdf

Cohen, J. (1988). *Statistical power analysis for the behavioural sciences* (2nd ed.). Erlbaum.

Cordery, C. J., & Baskerville, R. F. (2010a). Assessing financial vulnerability in non-profit sports organisations. *SSRN Electronic Journal.* (July 1 2010) https://doi.org/10.2139/ssrn.1634473

Cordery, C. J., & Baskerville, R. F. (2010b). *Cash, sinkholes and sources. How are community sport and recreation organisations funded and what are the implications for their future viability? Research Report 3: Financial Vulnerability analysis.* Victoria University. http://dx.doi.org/10.2139/ssrn.3162894

Cordery, C. J., Sim, D., & Baskerville, R. F. (2013). Three models, one goal: Assessing financial vulnerability in New Zealand amateur sports clubs. *Sport Management Review, 16*(2), 186–199. https://doi.org/10.1016/j.smr.2012.08.002

Cordery, C. J., Sim, D., & Baskerville, R. F. (2018). Financial vulnerability in football clubs: Learning from resource dependency and club theories. *Third Sector Review, 24*(1), 49–70. https://ssrn.com/abstract=3145323

Cuskelly, G. (2004). Volunteer retention in community sport organisations. *European Sport Management Quarterly, 4*(2), 59–76. https://doi.org/10.1080/16184740408737469

Doherty, A., Millar, P., & Misener, K. (2022). Return to community sport: Leaning on evidence in turbulent times. *Managing Sport and Leisure, 27*(1–2), 7–13. https://doi.org/10.1080/23750472. 2020.1794940

Feiler, S., & Breuer, C. (2021). Perceived Threats through COVID-19 and the role of organizational capacity: Findings from non-profit sports clubs. *Sustainability, 13*(12), 6937. https://doi.org/10. 3390/su13126937

Feiler, S., Wicker, P., & Breuer, C. (2019a). Nonprofit pricing: Determinants of membership fee levels in nonprofit sports clubs in Germany. *International Journal of Sport Finance, 14*(4), 262–277. https://doi.org/10.32731/IJSF/144.112019.06

Feiler, S., Wicker, P., & Breuer, C. (2019b). Public subsidies for sports clubs in Germany: Funding regulations vs. empirical evidence. *European Sport Management Quarterly, 19*(5), 562–582. https://doi.org/10.1080/16184742.2018.1541915

Froelich, K. A. (1999). Diversification of revenue strategies: Evolving resource dependence in nonprofit organizations. *Nonprofit and Voluntary Sector Quarterly, 28*(3), 246–268. https://doi.org/10.1177/0899764099283002

Frumkin, P., & Keating, E. K. (2011). Diversification reconsidered: The risks and rewards of revenue concentration. *Journal of Social Entrepreneurship, 2*(2), 151–164. https://doi.org/10.1080/19420676.2011.614630

Government of South Australia. (2017). *Club/Association financial management guide for recreation & sport organisations.*

Greenlee, J. S., & Trussel, J. M. (2000). Predicting the financial vulnerability of charitable organizations. *Nonprofit Management and Leadership, 11*(2), 199–210. https://doi.org/10.1002/nml.11205

Greenlee, J. S., & Tuckman, H. P. (2007). Financial Health. In D. R. Young (Ed.), *Financing nonprofits. Putting theory into practice* (pp. 315–335). AltaMira Press.

Gumulka, G., Barr, C., Lasby, D., & Brownlee, B. (2005). *Understanding the capacity of sports & recreation organizations.* Canada: Imagine.

Hager, M. A. (2001). Financial vulnerability among arts organizations: A test of the Tuckman-Chang Measures. *Nonprofit and Voluntary Sector Quarterly, 30*(2), 376–392. https://doi.org/10.1177/0899764001302010

Hansmann, H. (1980). The role of nonprofit enterprise. *The Yale Law Journal, 89*(5), 835–902. https://doi.org/10.2307/796089

Hung, C., & Hager, M. A. (2019). The impact of revenue diversification on nonprofit financial health: A Meta-analysis. *Nonprofit and Voluntary Sector Quarterly, 48*(1), 5–27. https://doi.org/10.1177/0899764018807080

Kearns, K. (2007). Income portfolios. In D. R. Young (Ed.), *Financing nonprofits. Putting theory into practice* (pp. 291–314). AltaMira Press.

Kingma, B. R. (1993). Portfolio theory and nonprofit financial stability. *Nonprofit and Voluntary Sector Quarterly, 22*(2), 105–119. https://doi.org/10.1177/089976409302200202

Lamprecht, M., Bürgi, R., Gebert, A., & Stamm, H. (2017). *Sportvereine in der Schweiz. Entwicklungen, Herausforderungen und Perspektiven [Sports clubs in Switzerland. Developments, challenges and perspectives].* Bundesamt Für Sport.

Lamprecht, M., Fischer, A., & Stamm, H. (2012). *Die Schweizer Sportvereine: Strukturen, Leistungen, Herausforderungen [Swiss sports clubs: Structures, offers, challenges].* Seismo Verlag.

Lasby, D., & Sperling, J. (2007). *Understanding the capacity of Ontario sports and recreation organizations.* Canada: Imagine.

Long, J. S., & Freese, J. (2014). *Regression models for categorical dependent variables using Stata* (3rd ed.). Stata Press.

Markowitz, H. (1952). Portfolio Selection. *The Journal of Finance, 7*(1), 77–91. https://doi.org/10.2307/2975974

Prentice, C. R. (2016a). Understanding nonprofit financial health: Exploring the effects of organizational and environmental variables. *Nonprofit and Voluntary Sector Quarterly, 45*(5), 888–909. https://doi.org/10.1177/0899764015601243

Prentice, C. R. (2016b). Why so many measures of nonprofit financial performance? Analyzing and improving the use of financial measures in nonprofit research. *Nonprofit and Voluntary Sector Quarterly, 45*(4), 715–740. https://doi.org/10.1177/0899764015595722

Priemer, J., Labigne, A., & Krimmer, H. (2016). *ZiviZ-Finanzierungsstudie 2015. Weniger Subsidiarität, mehr Wettbewerb in der Zivilgesellschaft?* Edition Stifterverband.

Sigloch, J. (2005). Rechnungslegung [Accounting]. In C. Breuer & A. Thiel (Eds.), *Handbuch Sportmanagement* (pp. 195–215). Hofmann.

Sport New Zealand. (2019). *Accounting for non-accountants. Sport and Recreation Organisations.*

SRA. (2013). *Sports club survey 2013. A review of clubs including membership, facility access, finances, challenges and opportunities.* Sport and Recreation Alliance.

SRA. (2018). *Sports Club Survey Report 2017/18.* Sport and Recreation Alliance.

Staley, K., Randle, E., Donaldson, A., Seal, E., Burnett, D., Thorn, L., Forsdike, K., & Nicholson, M. (2021). Returning to sport after a COVID-19 shutdown: Understanding the challenges facing community sport clubs. *Managing Sport and Leisure*, 1–21. https://doi.org/10.1080/23750472.2021.1991440

Thiel, A., & Mayer, J. (2009). Characteristics of voluntary sports clubs management: A sociological perspective. *European Sport Management Quarterly, 9*(1), 81–98. http://dx.doi.org/10.1080/16184740802461744

Trussel, J. M. (2002). Revisiting the prediction of financial vulnerability. *Nonprofit Management and Leadership, 13*(1), 17–31. https://doi.org/10.1002/nml.13103

Tuckman, H. P., & Chang, C. F. (1991). A Methodology for Measuring the Financial Vulnerability of Charitable Nonprofit Organizations. *Nonprofit and Voluntary Sector Quarterly, 20*(4), 445–460. https://doi.org/10.1177/089976409102000407

Wicker, P., & Breuer, C. (2011). Scarcity of resources in German non-profit sport clubs. *Sport Management Review, 14*(2), 188–201. https://doi.org/10.1016/j.smr.2010.09.001

Wicker, P., & Breuer, C. (2013). Understanding the importance of organizational resources to explain organizational problems: Evidence from nonprofit sport clubs in Germany. *Voluntas, 24*(2), 461–484. https://doi.org/10.1007/s11266-012-9272-2

Wicker, P., & Breuer, C. (2014). Examining the Financial Condition of Sport Governing Bodies: The Effects of Revenue Diversification and Organizational Success Factors. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations, 25*(4), 929–948. https://doi.org/10.1007/s11266-013-9387-0

Wicker, P., Breuer, C., & Hennigs, B. (2012). Understanding the interactions among revenue categories using elasticity measures - Evidence from a longitudinal sample of non-profit sport clubs in Germany. *Sport Management Review, 15*(3), 318–329. https://doi.org/10.1016/j.smr.2011.12.004

Wicker, P., Feiler, S., & Breuer, C. (2013). Organizational mission and revenue diversification among non-profit sports clubs. *International Journal of Financial Studies, 1*(4), 119–136. https://doi.org/10.3390/ijfs1040119

Wicker, P., Longley, N., & Breuer, C. (2015). Revenue volatility in German nonprofit sports clubs. *Nonprofit and Voluntary Sector Quarterly, 44*(1), 5–24. https://doi.org/10.1177/0899764013499072

Winand, M., Zintz, T., Scheerder, J., & Dolles, H. (2012). A financial management tool for sport federations. *Sport, Business and Management: An International Journal, 2*(3), 225–240. https://doi.org/10.1108/20426781211261539

Young, D. R. (2007). Why study nonprofit finance? In D. R. Young (Ed.), *Financing nonprofits. Putting theory into practice* (pp. 3–20). AltaMira Press.

7 Perceived Threats through COVID-19 and the Role of Organizational Capacity: Findings from Non-Profit Sports Clubs

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Abstract

(1) Background: The COVID-19 pandemic has forced non-profit sports clubs to shut their doors. As a consequence, neither sports activities nor social gatherings could take place for an indefinite period. This situation poses potential risks to sports clubs as clubs could lose members, volunteers, and revenue. The purpose of this study is to investigate how strong clubs have been affected so far by COVID-19 and which capacities help or hinder clubs in dealing with the crisis.
(2) Methods: The study is based on large-scale primary data (n=4295) collected among German sports clubs in autumn 2020. Three fractional regression models are applied to examine which organizational capacities are related to potential threats caused by COVID-19.
(3) Results: Clubs perceive the risk of losing members as most threatening, followed by the challenge of retaining volunteers. Potential financial threats are perceived as smaller by clubs without their own sports facilities and paid employees.
(4) Conclusions: Overall, sports clubs with a strong solidarity culture seem to be affected less by potential threats through COVID-19. To become more resilient to

unexpected external influences, capacity building in specific areas of sports clubs should be considered. Support from public institutions and sports associations is needed.

Keywords: corona pandemic; membership organizations; volunteers; members; financial situation; organizational problems; organizational resources; grassroots sports; community sports; solidarity

7.1 Introduction

The COVID-19 pandemic has changed the lives of people and organizations worldwide. Habits and activities that used to belong to millions of people's everyday lives were suddenly not possible anymore. Likewise, the sports sector was hidden hard by the pandemic, both concerning professional and grassroots sports [1]. Pertaining to the latter, amateur sports organizations were forced to stop offering activities to their members due to social distancing rules and lockdowns. In their role as membership organizations [2], non-profit sports clubs are characterised by certain constitutive and economic features: Membership in sports clubs is voluntary, and clubs are oriented on the members' interests. Moreover, clubs are mainly run by volunteers, have democratic structures, and are autonomous [3]. In addition, clubs do not follow profit-maximising goals but rather social and demand-driven goals. Their revenue structure is relatively autonomous, meaning that clubs are mainly financed through revenue by members. Membership fees make up the largest proportion within the clubs' revenue portfolio [4,5]. Through relying, to large extents, on member financing, sports clubs are, to a lesser degree, dependent on external funding [6]. Although sports clubs are regarded as rather robust organizations [7] due to the described characteristics, such an unprecedented crisis as caused by the coronavirus pandemic is absolutely new territory for sports clubs. Consequently, clubs are facing challenging times.

In Germany, which is the research context of this study, almost 88,100 sports clubs existed before the COVID-19 pandemic, i.e., at the beginning of January 2020 [8]. The clubs build the basis of the German sport system, as in many other countries [9], and offer a wide range of different population groups to participate in sports for an affordable amount of money. Due to these low entry barriers, for every 83 million citizens in Germany, there were 27 million memberships in sports clubs as of January 2020 [8]. The organizational degree among children and adolescents was even higher and relatively stable over the last decade [10,11], underlining the essential social function of sports clubs [12]. However, projections of the federal state sports confederations indicate a membership loss of between 3 and 5 percent on average [13]. Especially young members seem to leave clubs, as indicated by a larger decline in the age groups of children and adolescents [14]. In absolute terms, this means a decline of about one million members [15] (as of April 2021, although data reported by the confederations is still incomplete).

These declining membership numbers are the consequences of two lockdowns. In March 2020, Germany went into the first lockdown caused by the COVID-19 pandemic. Consequently, large parts of public and private life were shut down. For German sports clubs, this lockdown meant that no activities for members, both concerning sports offers and social activities, were possible anymore. Sports facilities

of all kind, including swimming pools, were closed. The situation of grassroots sports clubs was similar in other countries [16], e.g., England [17], Canada [18], Spain [19], and Australia [20,21]. The first lockdown period in Germany lasted until May 2020. From then onwards, clubs could return step by step to their activities, yet only in compliance with strict hygiene concepts [22]. Thus, during summer and autumn 2020, taking part in clubs' sports activities was possible under certain circumstances [23]. However, differences existed between the 16 federal states of Germany and the types of sports offered [24]. For example, outdoor sports such as golf could be practised with fewer restrictions than indoor and contact sports [22,23], a situation that was similar in the Netherlands and England [17,25]. Consequently, clubs suffered to varying degrees from the pandemic [13] and reacted differently during and after the first lockdown. As substitutions for the usual sports activities, some clubs could set up digital replacement sports offers [24,26], thereby taking new and innovative ways, which are expected to be helpful in the future to recover from the crisis [16,27]. When the second COVID-19 wave hit Germany in October 2020, a second lockdown was the result. Consequently, sports clubs had to shut their doors again from the beginning of November 2020. This second lockdown lasted much longer. It was only in March 2021 that minimal parts of the sports offers, especially for children and adolescents, were possible again, always taking current incidence values of COVID-19 into account.

As a consequence of months without sports operations, training, competitions, and social gatherings, sports clubs face increasing challenges. A decline in membership numbers is already evident [13] and prior studies report that clubs, even before the pandemic, constantly had to deal with increasing human resources problems [28]. Particularly volunteer recruitment and retention is a continually growing problem for sports clubs [4]. But also, the financial situation, and binding and finding members, are challenges for clubs [5]. The longer sports operations are interrupted, the more likely it is that club members will start thinking about leaving clubs [23]. Consequently, clubs are expected to lose further members and membership fees, their most crucial income source [29]. Thus, it can be expected that the COVID-19 pandemic will most likely worsen problems related to retaining and recruiting members, volunteers, and the clubs' financial situation.

Therefore, the purpose of this study is to investigate how clubs themselves perceive these challenges and which factors are associated with the clubs' perceptions. The study makes use of a nationwide online survey of sports clubs conducted in autumn 2020. Adapting a question from a COVID-19 survey of the German Socio-Economic Panel (SOEP) [30], sports clubs were asked to provide an assessment regarding the perceived threat of the COVID-19 pandemic in the coming year. The question addressed three areas, namely potential existential problems in terms of the club's financial situation and the retention and recruitment of volunteers and members.

The study is framed by the conceptual model of organizational capacity to examine which resources and external factors are associated with the clubs' perception of existential threats. Thus, the main research questions addressed in this study are the following:

RQ1: How strongly do sports clubs rate the probability of facing existential threats in the areas of finances, volunteers, and members due to the COVID-19 pandemic within the next twelve months?

RQ2: Which organizational capacities are related to the risk of facing existential threats through the COVID-19 pandemic?

This study is the first to investigate the impact of the COVID-19 pandemic on nonprofit sports clubs using large-scale data, underlining the empirical contribution. The results give insights into how far clubs expect to be impacted in three core areas. Moreover, light is shed on the characteristics and resources of clubs that perceive bigger or smaller problems. Thereby, the study addresses the call by Doherty, Millar, and Misener to lean on evidence to understand and explore how clubs deal with the COVID-19 crisis [16]. This evidence is important since the degree to which clubs are confronted with problems in different areas is not the same for all clubs. The sports clubs' landscape is heterogenous, and so is the impact of the pandemic. Therefore, the study also has implications for public institutions and sports associations concerning support measures.

7.2 Literature review and framework

7.2.1 State of research on COVID-19 and sports organizations

The unprecedented worldwide crisis caused by the coronavirus pandemic has increased research in various fields connected to the sports sector [31]. Areas examined are, among others, spectator sports, professional sports, individual sports participation, and sport provision by different sports providers such as commercial fitness centres and community sports organizations [1,32–35]. However, studies on amateur, non-profit, or grassroots sports clubs are so far scarce, with few exceptions. A Spanish study investigated sports entrepreneurship in the form of innovation, risk-taking behaviour, and proactivity of a sample of 145 sports clubs before and after the beginning of the pandemic. The results show that risk-taking and innovation have increased during the pandemic compared to the time before. However, the sample is likely not to be generalisable due to the sampling method [19].

A German qualitative study on 15 sports clubs in Bavaria during the first months of the pandemic examined changes in sports offers, reactions of members, and potential and constraints for long-term changes in sports offers. The study revealed that

most members were willing to pay their membership fees. They wanted to support their club and showed a high club identification. Clubs were regarded as socially relevant institutions and as an integral part of members' lives. Almost two-thirds of the interviewed clubs developed digital sports offers during the pandemic in different formats (live, recorded, training plans). The resonance of members toward these digital offers varied. While in some clubs, fewer members took part than in usual sports activities before corona, other clubs reported higher participation rates. Despite the digital possibilities of participating in sports, members missed the social aspects and community feelings that arise through direct contact [26]. While this study gives interesting insights on how clubs dealt with challenges enforced by the corona pandemic, the results are hardly representative of a wider sports club population.

In a further qualitative study, 13 interviews with sports clubs in England and Scotland were conducted in summer 2020. The sample included clubs with their own sports facilities and clubs that rented facilities, clubs with contact sports and sports where participation can be distanced, as well as indoor and outdoor sports. These factors were relevant and made a difference to the impact of COVID-19 restrictions on sports clubs. For example, financial sustainability varied depending on whether clubs owned sports facilities since facility maintenance costs remained, with revenues declining at the same time. Volunteer numbers were sustained, although potential problems in recruiting new volunteers were projected if restrictions were to continue [17].

An Australian study dealt with the impact of COVID-19 on youth sport and found challenges in binding volunteers and participants. Moreover, it was suggested that sports clubs need additional support and resources during the lockdowns and the aftermath to recover [20]. Apart from academic research, different sports organizations published reports of national investigations into the impact of COVID-19 on grassroots and community sports, e.g., in Australia, Canada, the UK, and Germany [18,21,36,37]. Consistent challenges reported were fewer financial resources and issues in the areas of retaining volunteers and members.

Research that dealt with the recovery and resilience of sports organizations from external shocks such as natural disasters [7,38] before the COVID-19 pandemic is only partly comparable to the current situation. What can be drawn from prior research on dealing with natural disasters of sports clubs in Australia is that organizational resources and the ability to continue operating in times of crises, i.e., robustness, characterise resilient sports clubs. Overall, clubs were found to be relatively resilient organizations [7]. In the aftermath of natural disasters, volunteers and their engagement were valuable in the course of recovery. Partner organizations (e.g., other sports clubs and state sports organizations) provided grants and donations. Governmental entities were also integral to recovery through providing grants

and labor to rebuild facilities [38]. However, troubles caused by natural disasters may lead to an interruption of parts of sports offers if, e.g., facilities were destroyed. The situation caused by COVID-19 is not comparable since clubs are forced to stop all club programs for an unpredictable period. Therefore, investigations into sports clubs' resilience in the course of the COVID-19 pandemic are still needed. The underlying study is a step in this direction, although it does not investigate resilience as a concept, rather organizational capacities and resources as indicators of projected existential threats.

7.2.2 Conceptual framework

This study builds on the conceptual model of non-profit and voluntary organizational capacity [39]. Organizational capacity is understood as a multidimensional construct, with different capacities being important for organizations to fulfill their missions and to perform their functions in an effective, efficient, and sustainable way. In the context of non-profit sports clubs, the clubs' key mission is to provide sports programs, opportunities to take part in competitive sports, and social exchange [40]. The model of organizational capacity also takes into account internal and external factors that might hinder or constrain organizations in fulfilling their mission [39]. The model has previously been applied in various studies in the non-profit and community sports context in different countries, such as Canada and Germany [2,41–46]. The model has also been used to investigate the relationship between a sports clubs' organizational capacity and, for one, organizational problems in the areas of volunteers, members, and finances [28,47], and second, voluntary engagement [48,49]. To examine which clubs perceive larger threats through the impact of the pandemic, considering the clubs' resources and constraints is important.

Hall and colleagues [39] differentiate between three main capacity dimensions: human resources capacity, financial capacity, and structural capacity. The latter can further be subdivided into relationship and network capacity, infrastructure and process capacity, and planning and development capacity. When using the framework of organizational capacity in this study, an additional aspect which is particularly relevant for nonprofit sports clubs is considered. This aspect refers to an ongoing debate among scholars (e.g., [50–52]) about the differentiation between two ideal types of sports clubs, namely solidarity-based sports clubs and service-oriented sports clubs [51,53]. Clubs that see themselves as a community of solidarity are likely to differ in certain aspects of organizational capacity and structure (e.g., club size) from clubs that follow a service-oriented philosophy. Particularly concerning human resources, financing, internal processes, and club culture, differences between these two club types are evident [50]. While solidarity-based clubs are characterised by close social relationships among members, a strong sense of belonging to the club

and thus low membership turnover, high member participation in decision-making processes, and strong volunteerism, the opposite applies to service-oriented clubs. Here, social integration is relatively weak, member' interests are heterogeneous, voluntary engagement is low, and fluctuation is high [51,53,54]. Therefore, aspects of this differentiation are considered in this study when explaining the different dimensions of organizational capacity below.

7.2.2.1 Human resources capacity

Human resources capacity is defined as "the ability to deploy human capital (i.e., paid staff and volunteers) within the organization and the competencies, knowledge, attitudes, motivation and behaviours of these people" ([39] p. 5). Prior research in the field of non-profit sports organizations has identified that both volunteers, the key resource of sports clubs, and paid employees are important resources for clubs [46,55]. Volunteers in sports clubs act on different levels, namely the executive, i.e., the board level, and the implementation level, which encompasses coaches, trainers, and referees. In German sports clubs, averagely, eight positions at the board level and about nine positions at the executive level exist [4]. Employing paid staff is less common in non-profit sports clubs, although the existence of paid employees increases with increasing club size [4,55] and in higher professionalised clubs [5,56]. This fact is also true for service-oriented rather than solidarity-based clubs since volunteer work is in these clubs more often substituted by paid employees due to a lower willingness of members to volunteer [51].

Studies have shown that organizational problems of sports clubs are significantly related to human resources capacity [28,47]. It needs to be noted that human resources can also increase organizational problems. Concerning volunteers, it was found that the number of volunteers is not necessarily related to the amount of work that needs to be done since fewer volunteers to do more work [2]. This result could mean that with higher shares of volunteers among members, the individual contribution of each volunteer is less visible and decreases [57] as volunteers might assume that there are enough volunteers to do the work, i.e., a free-rider situation. Research has indeed found that a higher volunteer rate decreases the willingness to volunteer [48] and increases problems of recruiting and retaining members and the financial situation [28]. A similar effect could occur with regard to perceived existential threats caused by the COVID-19 pandemic. Employing paid staff might, on the one hand, help to release volunteers from increasing bureaucratic tasks [58] and foster more efficient workflows [56]. On the other hand, paid staff is more expensive than volunteers [59]. Therefore, clubs with paid staff might face financial challenges [56], a result found for German civil society organizations during the corona pandemic [60]. Moreover, conflicts between volunteers and paid staff can

arise due to different values and motives and a potential disempowerment of volunteers through paid staff [57,58], which could potentially lead to perceived volunteer problems. However, existing research did not find a significant effect of paid staff on volunteer engagement in sports clubs [48].

In addition to the number of volunteers, particularly the passion and commitment of the individuals, as well as following a common focus, i.e., having similar goals play an essential role [2,43]. Such a scenario is most likely to be found in solidarity-based sports clubs. In Germany, a high continuity among volunteers in sports clubs can be observed. A board position is on average kept for 12 years [61], and coaches are active in their role for 11 years [62]. Moreover, it is vital to understand the club members' attitudes towards their club [2]. It can be expected that members who have a higher identification with the club are less likely to end their membership [51], and that volunteers who are passionate about their commitment continue their voluntary engagement. Both aspects are typical in solidarity-based clubs and are expected to decrease the likelihood of existential problems [28].

7.2.2.2 Financial capacity

The second dimension, financial capacity, is defined as "the ability to develop and deploy financial capital" ([39] p. 5). According to Hall et al., financial capital includes revenues, expenses, as well as assets and liabilities. In the context of amateur sports organizations, stable revenues and expenses, diverse revenue streams, and fiscal responsibility by reaching a balanced budget were identified as critical elements within the financial capacity dimension [2]. Revenue is necessary to finance the clubs' sports programs. Therefore, total revenue was used as an indicator of financial capacity in prior studies on organizational problems [28,47]. However, stable revenues and expenses were found to be more important than the total amount of revenue [2]. In non-profit sports clubs, stable revenues are mainly dependent on the most important income source, i.e., membership fees [16].

Because different measures are needed to assess the financial capacity of non-profit organizations to fulfill their mission [63], in addition to the total amount of revenue, the diversity of income sources should be considered. Like non-profit organizations in general and in contrast to for-profit organizations [64], non-profit sports clubs generate revenue from many different sources, including membership and admission fees, donations, public subsidies, sponsorship income, and further income from business operations (e.g., self-operated restaurants, merchandising, etc.) [65]. To address the level of income diversity, a common measure used is the Hirschman-Herfindahl index. Revenue diversification in relation to the financial health of non-profit organizations has reached increasing attention among scholars [66]. However, study results are diverse. While some studies find that revenue diversification increases

financial health and stability [67,68], more recent studies come to different results (e.g., [69,70]). Also, studies on non-profit sports clubs did not find a decreasing effect of revenue diversification on organizational problems, but rather the opposite [28]. Therefore, the relationship between revenue diversification and perceived threats through COVID-19 is difficult to predict.

Summing up, prior studies on non-profit sports clubs mainly focused on revenue diversification, revenues and expenses, and the resulting solvency measure of breaking even to operationalize financial capacity [42]. However, assets and liabilities have so far been neglected. A reason for omitting these factors is that non-profit sports clubs have lower accounting standards, and information on assets and liabilities is often missing [46]. The underlying study adds to the body of research by examining assets and liabilities within the financial capacity dimension. Especially in times of crises such as the corona pandemic, it can be expected that assets and liabilities influence the perceived problem levels. Assets might give clubs a feeling of security, while liabilities could be associated with higher risks.

7.2.2.3 Structural capacity

The third capacity dimension, structural capacity, is defined as "the ability to deploy the non-financial capital that remains when the people from the organization have gone home" ([39] p. 5). This dimension contains three types of structural capacities. The first is relationship and network capacity, which reflects the ability of an organization to build different relationships, e.g., with members, volunteers, partner organizations, or governmental institutions, to acquire social capital [71]. Relationships and networks help to access additional knowledge, resources, and experience [39]. In non-profit sports clubs, external relationships exist, e.g., with other sports clubs, schools, kindergartens, the community, commercial sport providers, and health insurances and are generally regarded as strengths of clubs [46]. Sports clubs may use external partnerships with other clubs to acquire intellectual and material resources, e.g., about the provision of digital substitute sports offers [20]. However, relationships with bureaucratic partners, characterised by high inflexibility and formalisation, are problematic [2]. In times of crises, relationships with public institutions and administration (e.g., local sports associations) are expected to be particularly important since these institutions are responsible for offering support measures for sports clubs, e.g., in the form of financial support or consultancy. Research supports this notion since public financial support for sports clubs helped to recover in the aftermath of natural disasters [7].

The second element of structural capacity relates to the organizations' infrastructure, processes, and culture. This dimension incorporates information technology, intellectual property (e.g., the ability to innovate), and elements of internal structure

and day-to-day operations, e.g., policies, procedures, and databases [39]. Moreover, communication with volunteers and members about club issues is a relevant element within this dimension [2]. Communication can occur in different ways in sports clubs, e.g., in the general annual meeting or on a regular basis between the club board and its members. Especially in times of crises, it seems important to keep members and volunteers informed about recent developments since good communication is regarded as a strength of sports clubs, while bad communication weakens them [2].

Concerning infrastructure, relevant elements are the availability and quality of sports facilities [2]. Sports facilities used by clubs are either club-owned or public sports facilities [4]. In Germany, sports clubs rely on both types of facilities. Owning facilities is associated with building, running, and maintenance costs, while the usage of public sports facilities is either free or available for a low usage fee [72]. During the interruption of sports operations, the usage fee was partly waived for clubs so that costs could be saved. Contrary, running costs for club-owned facilities continued to occur. Therefore, it is expected that particularly financial threats caused by COVID-19 are perceived larger if clubs are in possession of their own facilities while using public facilities is expected to decrease the likelihood of financial problems.

Regarding internal processes, challenges for organizations were particularly identified in the area of information technology [39], thus often posing constraints for organizations. Crises situations can increase innovation [27], and digitization has seen a boost due to the corona pandemic, also in the non-profit sector [73]. Sports organizations like the European Sport NGO provided ideas for sports clubs to get involved in virtual training sessions [32]. It is expected that innovative sports clubs in terms of digital tools are less likely to face existential threats. Recent research from the context of Australian youth sport suggests that using digital tools during the interruption of sport can be helpful to overcome uncertainty and keep in contact with children and parents. Especially digital sports programs can help to keep some sports offers running even during the lockdown periods [20]. Such digital programs are used to varying degrees by sports club members, but they cannot substitute the social and community feeling [26].

Culture is an important element of structural capacity. Club culture is based on shared values and goals of the club and its members and is developed in the course of the club's history [50,51]. Hence, clubs follow needs-oriented goals. These goals can include offering sports programs to members, opening possibilities for participating in competitions, cultivating club traditions, focusing on certain groups, e.g., children, but also providing opportunities for social interaction which create feelings of community, i.e., rather intangible benefits [74,75]. However, club goals can differ between clubs, related to different member interests. Member interests can be twofold: goal-oriented and valueoriented [76]. Goal-oriented, or purpose-oriented, means that members are mainly interested in taking part in sports programs, but

to a lesser or no degree to get involved in club life, e.g., as a volunteer or with other members. In this case, members are rather seen as customers, cost-benefit considerations dominate, and relationships between members are weak [50,53]. It follows that members with purely goal-oriented interests are more likely to leave the club if their goal, i.e., taking part in sports, cannot be followed anymore. Such a scenario is likely to be found in clubs with a service-oriented culture [51], with activities that are also open to non-members [54], e.g., courses and health sports. Thereby, trends of individualisation and striving for personal health and fitness are addressed [50,53]. On the contrary, members who follow both goal-oriented and value-oriented goals put value on social aspects of club life, are more likely to get involved in voluntary work, and build social contacts with other members. Such members are less likely to leave the club since the binding and loyalty is much stronger [53]. Clubs with members that are goal-oriented and value-oriented follow a solidarity-based philosophy [51]. Thus, it can be assumed that clubs that are rather characterised as solidarity-based perceive threats of COVID-19 to be smaller, while service-oriented clubs will struggle more.

The third element of structural capacity refers to planning and development, and incorporates the ability to draw on and develop strategic plans, policies and proposals [39]. Even though long-term strategic planning does not seem to be a key priority of nonprofit sports organizations [47], this dimension was found to be relevant for the overall functioning of sports clubs [28,41,77]. Therefore, particularly in times of crises, it can be expected that a strategic policy helps to address upcoming challenges.

7.3 Materials and methods

7.3.1 Data base

This study is based on primary data which was collected as part of the "Sport Development Report (SDR)". The SDR is a longitudinal research project on non-profit sports clubs in Germany, which started in 2005. The project is financed by the Federal Institute of Sport Science (BISp), the Germany Olympic Sports Confederation (DOSB), and the 16 federal state sports confederations. So far, eight waves have been conducted. The different waves cover similar questions on core areas of sports clubs such as members, sports offers, volunteers, paid staff, finances, problems, sports facilities, and club philosophy. Moreover, each wave includes questions on specific focal topics, which varied from wave to wave, according to the current societal and political situation (e.g., social inclusion of vulnerable groups such as refugees, prevention of sexualised violence, health sports, etc.). In the recent survey from the eighth wave, questions relating to the COVID-19 pandemic were integrated.

For the underlying study, data from this eighth wave of the SDR is used, which was gathered from 21 October to 21 December 2020 through an online survey. Of the existing 88,071 sports clubs in Germany in the year 2020 [8], 78,353 sports clubs were invited via email to take part in the survey. The 16 federal state sports confederations provided the clubs' email addresses. Each club received an individual link to the online questionnaire, which allowed clubs to interrupt the survey and continue later, e.g., to search for information on the clubs' finances. Participation was voluntary, and clubs could stop the survey at any point. After deducting 3,328 invalid email addresses, the adjusted sample amounted to 74,070 clubs. During the survey period, two reminder emails were sent to clubs, which increased participation. Finally, n=20,179 sports clubs participated in the survey. The response rate amounted to 26.9%. The data preparation and cleaning process included plausibility checks. Moreover, only clubs that gave complete financial information could be included in the analysis. Therefore, and due to missing values in some of the independent variables, the underlying study can make use of a maximum of n=4295 cases. In 97% of these cases, voluntary board members filled out the survey, in 2%, paid staff was involved, and in 3%, volunteers from the implementation level contributed to answering the survey.

7.3.2 Variables

The dependent variables were developed based on the German Socio-Economic Panel (SOEP), which had installed a special COVID-19 survey in 2020. One question in this survey investigated the subjective perception of people becoming critically ill due to the coronavirus within the next 12 months [30]. Based on this question to individual perceptions, a question that measures the perceived threat for sports clubs through COVID-19 within the following year was developed. The developed question reads, "What do you think the likelihood is that your club will experience existence-threatening problems in the areas listed over the next 12 months due to the COVID-19 pandemic?". The listed areas included (1) the financial situation of the club, (2) recruiting and retaining volunteers, and (3) recruiting and retaining members. Clubs were asked to give a percentage representing the likelihood of existential threats between 0 and 100, with 0 meaning "not likely at all" and 100 meaning "very likely". Thus, the three dependent variables reflect proportions, i.e., share values (see Table 7.1).

Table 7.1 Overview of variables.

Variable	Description	Scale
Dependent variables		
covid_finances	Estimated probability of facing existential threats through the COVID-19 pandemic regarding the club's financial situation within the next 12 months	metric
covid_volunteers	Estimated probability of facing existential threats through the COVID-19 pandemic regarding retaining/recruiting volunteers within the next 12 months	metric
covid_members	Estimated probability of facing existential threats through the COVID-19 pandemic regarding retaining/recruiting members within the next 12 months	metric
Independent variables		
Human resources capacity		
share_volunteers	Share of volunteers in fixed positions among members (in %)	metric
commitment_volunteers	Problem with volunteer commitment (1=big/very big)	dummy
paidstaff	Club has paid employees (1=yes)	nominal
identification	Problem with member identification with the club (1=big/very big)	dummy
share_socialevents	Share of members who participated in social events of the club in 2019 (in %)	metric
Financial capacity		
rev_div	Revenue diversification (1-Herf ; 0=perfect revenue concentration; 1=perfect revenue diversification)	metric
revenue_pc	Total revenue per member in 2019 (in €)	metric
breakeven	The club's revenues exceeded the costs in 2019 (1=yes)	dummy
assets_pc	Sum of club's assets per member end of 2019 (in €)	metric
liabilities_pc	Sum of club's liabilities per member end of 2019 (in €)	metric
Structural capacity		
cooperations	Number of co-operations with other organizations	metric

continued on next page...

Table 7.1 Continued

Variable	Description	Scale
political_support	Problem with political and administrative support (1=big/very big)	dummy
phil_communication	Our club communicates regularly with our members (1=agree/totally agree)	dummy
share_annualmeeting	Share of members that took part in the club's annual meeting in 2019 (in %)	metric
own_facilities	Club is in possession of its own sports facilities (1=yes)	dummy
public_facilities	Club uses public sports facilities (1=yes)	dummy
multisportsclub	Club offers more than one type of sport (1=yes)	dummy
responsibilties	Problem with the organization of division of labor and responsibilities within the club (1=big/very big)	dummy
resources_digital	Lack of necessary resources in terms of time, personnel, money to forward digitization (1=rather applies/applies completely)	dummy
digital_sport	Offers of digital sports programs during the interruption of normal sport operations due to the COVID-19-pandemic (1=rather applies/ applies completely)	dummy
phil_solidarity	Our club sees itself as a solidarity community (1=agree/strongly agree)	dummy
phil_serviceprovider	Our club sees itself as a service provider (1=agree/strongly agree)	dummy
phil_tradition	Our club attaches importance to the cultivation of tradition (1=agree/strongly agree)	dummy
phil_commmunity	Our club attaches importance to community (1=agree/strongly agree)	dummy
phil_competitivesports	Our club is involved in competitive sports (1=agree/strongly agree)	dummy
phil_youth	Our club is involved in children's and youth sports (1=agree/strongly agree)	dummy
share_healthsports	Our club is involved in health sports (in %)	metric
course_offers	Club generates revenues from course offers (1=yes)	dummy
strategy	Problem with the clarity about strategy and future development of the club (1=big/ very big)	dummy

continued on next page...

Table 7.1 Continued

Variable	Description	Scale
Control variables		
members	Total number of members in the club	metric
inhsqkm	Inhabitants per square kilometer in the clubs' community	metric
sports	20 most often sports in the sample plus 5 representing contact and outdoor sports (football, fitness, apparatus gymnastics, table tennis, volleyball, tennis, shooting, track & field, dancing, badminton, swimming, hiking, equestrian, cycling, handball, skittles, basketball, skiing, karate, judo, sailing, canoe, boxing, rowing, golf)	dummy
state	16 federal states of Germany (reference category: Bavaria)	dummy
lockdown	Club participated in the survey during the 2nd lockdown (1=yes)	dummy

The independent variables reflect the organizational capacity dimensions presented in the conceptual framework (see Table 7.1). Human resources capacity is captured by five variables. The first variable demonstrates the share of core volunteer among members (*share_volunteers*). This variable was calculated by dividing the total number of volunteers from the board and implementation levels by the total number of members. The voluntary ratio among members has been used in prior research in the context of human resources capacities in sports clubs [28,47,48]. The second variable reflects the commitment of volunteers (*commitment_volunteers*) since not only the number but also the engagement level and enthusiasm of volunteers is important. This variable is captured by the clubs' assessment of the problem level with volunteer engagement. The original item was measured on a 5-point Likert scale ranging from 1="no problem" to 5="a very big problem". For the underlying study, the variable was recoded into a dummy variable, reflecting whether the club has a big or very big problem in this area, meaning that volunteer commitment would be low. In addition to volunteers, human resources also included paid employees. A dummy variable reflects whether the club has paid staff in club administration and management, sports operations, or other areas like maintenance and care (*paidstaff*). The role of member identification with the club as part of the human resources capacity dimension is reflected by two variables. The first is again a problem statement by the club (*identification*), which was measured and recoded as described for the variable *commitment_volunteers*. The second variable

reports the share of members who took part in the clubs' social events in 2019 (*share_socialevents*). Taking part in the clubs' social activities is associated with a stronger identification of members with the club and has previously been applied to reflect human resources capacity [28,47].

The financial capacity is covered with five variables. Here, it is important to note that all variables in this dimension reflect the clubs' finances in the year 2019, i.e., the year before the survey and before the COVID-19 pandemic reached the clubs. The first variable reflects the level of revenue diversification (*rev_div*), which is a common measure in nonprofit financial studies (e.g., [68]). In the online survey, clubs were asked to give information on the amount of revenue in 30 different income sources. To determine the diversification of income, first, the Herfindahl index was calculated by adding up the squared shares of the club's revenue sources. Since the Herfindahl index is a measure of concentration, the index was subtracted from 1 to obtain revenue diversification. Revenue diversification ranges from 0 to 1, with 0 meaning perfect concentration, i.e., the club only has one revenue category, and 1 meaning perfect diversification, i.e., having all revenue categories. Additionally, total revenue was used, which reflects the total amount of revenue the club generated. Since larger clubs usually have more revenue [4], the total amount of revenue was divided by the total number of members (*revenue_pc*). The third variable reflects whether the club had a balanced budget at the end of 2019 (*breakeven*), meaning that total revenues reached or exceeded total expenditure. Lastly, both the clubs' assets (*assets_pc*) and liabilities (*liabilities_pc*) as of the end of 2019 are used to reflect financial capacity. Assets incorporate the sum of, e.g., clubs' land, sports facilities, sports equipment, bank balances, cash assets, while liabilities include the sum of, e.g., liabilities to banks and trade payables. To account for club size here as well, both variables were divided by the number of members.

Relationship and network capacity is reflected by two variables. The first variable covers the number of co-operations the club has with different organizations (*cooperations*). This variable was calculated based on a list of possible partners of clubs. The list included other sports clubs, schools, kindergartens, health insurances, youth offices, health offices, senior facilities, disabled facilities, multigenerational houses, business companies, commercial sports providers, basic security/unemployment offices, and other institutions. The clubs were asked to mark with which of the stated institutions they have collaborations. Based on the responses, the total number of collaboration partners was calculated. The second variable reflects the relationship with public and administrative institutions. Here again, a problem statement was used to operationalize this relationship. Clubs were questioned to rate how big the problem was with receiving political and administrative support. The original item stems from the above described 5-point Likert scale, ranging from 1 = "no problem" to 5 = "a very big problem". Again, the variable was recoded into a dummy

(*political_support*), reflecting whether the club reported a big or very big problem, meaning that political and administrative support would be small.

Infrastructure and process capacity is reflected by a set of variables. First, communication within the club is measured by two variables. The first is a subjective item reflecting whether the club regularly communicates with its members (*phil_communication*). This item was measured on a 5-point Likert scale ranging from 1 = "do not agree at all" to 5 = "totally agree". The original item was recoded into a dummy reflecting whether the club agrees or totally agrees to this statement, thus whether regular communication with members takes place. In addition, a second variable objectively measures the share of members that participated in the club's 2019 annual meeting (*share_annualmeeting*). High participation reflects good communication mechanisms within the club.

Facilities are reflected by two variables, namely whether the club is in possession of its own sports facilities (*own_facilities*), and whether the club uses public sports facilities (*public_facilities*). Internal processes might differ in clubs that offer more than one type of sport from clubs that offer different types of sports [48]. Therefore, a variable reflecting whether a club offers more than one sport is included (*multisportclub*). Additionally, it is measured whether the club has problems with the internal organization of division of labor and responsibilities within the club. Again, a dummy was calculated, reflecting if the club has a big or very big problem in this area (*responsibilities*).

The use of information technology was identified as a challenge for non-profit organizations as part of infrastructure and process capacity [39]. Thus, information technology is operationalized by two variables. The first reflects whether the club is lacking the necessary resources to forward digitization (*resources_digital*). The complete item reads: "Our club lacks the necessary resources (time, personnel, money) to drive digitization forward". The second variable covers the provision of digital sports programs during the interruption of sports operations (*digital_sport*). This item is: "During the interruption of sports activities due to the COVID-19 pandemic, our club had digital substitutes for members". Both variables were measured on a 5-point Likert scale ranging from 1 = "does not apply at all" to 5 = "applies completely". Again, dummy variables were constructed reflecting whether the statement applies or completely applies.

Culture is an important element within the capacity of non-profit sports clubs. In this study, culture is reflected by eight variables, of which six stem from a battery measuring the clubs' self-conception, i.e., club philosophy (*phil_solidarity*, *phil_serviceprovider*, *phil_tradition*, *phil_community*, *phil_competitivesports*, *phil_youth*). Items from this scale have previously been used in sports club studies (e.g., [48,78]). The original items were measured on a 5-point Likert scale, ranging from 1 = "do not agree at all" to 5 = "totally agree". The original items were

recoded into dummy variables reflecting whether the club agrees or totally agrees to these statements. Another variable covers the involvement of clubs in health sports (*share_healthsports*). This variable reflects the proportion of health-related sports offers in relation to all sports offers. Lastly, the variable *course_offers* reflects whether the club generates income from sports courses that can also be open to non-members.

Finally, the planning and development capacity is reflected by the variable *strategy*. This variable stems from the problem battery and measures whether the club has problems with the clarity about the strategy and future development of the club. As before, the original problem item was recoded into a dummy variable, reflecting if the club has a big or very big problem in the area, i.e., no clear strategy for the future.

In addition to the described variables, which reflect the capacity dimensions, it is controlled for club size, urbanization, sports, federal states, and whether the club took part in the period before or during the second lockdown. Controlling for club size in terms of members (*members*) is important since the size of the club was found to be an important correlate of different capacity dimensions [42] and club types [50]. Urbanization is considered by inhabitant density at the clubs' location (*inhsqkm*). It is expected that clubs that are situated in communities with a higher density, which is usually the case in urban areas, face higher threats since urban areas were more affected by the second corona wave than rural areas [79]. Moreover, more substitution opportunities exist in urban areas, which might also influence organizational problems [28]. Furthermore, it is controlled for different types of sports since differences in the perception of threats due to different rules with regard to participation, e.g., in outdoor and contact sports, is expected. Prior research on Australian sports clubs found that clubs suffered to varying extents from externally caused crises [7]. The study further controls for the federal states in Germany since restrictions differed between states. Lastly, it is controlled for the time of the clubs' participation in the survey (*lockdown*). This seems important since the second lockdown in Germany started during the survey period, namely on 2 November 2020. Since sports operations were completely stopped again in the second lockdown, it can be expected that clubs that participated during the lockdown period perceived the existential threat stronger than clubs that had taken part in the survey before the second lockdown began.

7.3.3 Data analyses

The data analysis consists of descriptive and analytical statistics. The first is used to give an overview of the sample characteristics, the included variables, and to answer RQ1. To analyse RQ2, three fractional logistic regression models are applied. The

models measure the perceived likelihood of clubs to face existential threats within the next 12 months due to the COVID-19 pandemic in three core areas of clubs: finances, volunteers, and members. Fractional regression applies the quasi-likelihood estimator as in generalised linear models (GLM). Using fractional regression is more appropriate than ordinary least squares (OLS) regression since the dependent variables display proportions, with values between 0 and 1 and including both endpoints [80]. This means that the outcome variable y is $0 \leqslant y \leqslant 1$. If OLS was used, predictions could fall outside this interval which would lead to misspecification. The fractional logistic regression models are estimated with robust standard errors. To interpret the magnitude of the coefficients, marginal effects are obtained.

To check for multicollinearity of the independent variables, variance inflations factors (VIFs) were used. The check revealed that none of the VIFs exceeded the critical threshold of 10 [81] since all VIFs were below 3. Thus, there were no collinearity issues.

Since larger sports clubs are usually overrepresented in online club surveys, weights were calculated based on club size (number of members) to improve the representativeness of the sample. Clubs were split into five groups based on club size: $\leqslant$100 members, 101–300 members, 301–1000 members, 1001–2500 members, >2500 members. The share of clubs for each of the five groups was calculated for each of the 16 federal states, both in the total population of clubs and in the final sample. Weights were calculated based on the distribution of club size in the population and the sample. The models in this study are based on the weighted sample.

7.4 Results and discussion

7.4.1 Descriptive results

An overview of the summary statistics is displayed in Table 7.2. With regard to RQ1 and the sports clubs' subjective evaluation of facing existential threats through the COVID-19 pandemic, clubs see the smallest probability of facing such threats with regard to the financial situation. On average, clubs rate the probability of existential problems in the area of finances within the next twelve months with 17.6%, while facing existential problems in the area of retaining and recruiting volunteers is rated with on average 28.2%. Even higher is the perceived existential threat through COVID-19 in the area of retaining and recruiting members. Here, clubs assess the probability of facing existential problems with 33.5% (see Table 7.2).

Table 7.2 Summary statistics.

Variable	Mean	Standard Deviation	Min.	Max.
covid_finances	0.176	0.251	0	1
covid_volunteers	0.282	0.308	0	1
covid_members	0.335	0.317	0	1
share_volunteers	16.59	12.97	0.29	100
commitment_volunteers	0.135	0.342	0	1
paidstaff	0.387	0.487	0	1
identification	0.142	0.349	0	1
share_socialevents	42.57	25.00	0	100
rev_div	0.514	0.230	0	0.925
revenue_pc	203.26	492.92	0.93	23,333.33
breakeven	0.736	0.441	0	1
assets_pc	415.91	1647.71	0	44,444.45
liabilities_pc	52.01	639.79	0	33,333.33
cooperations	1.34	1.36	0	13
political_support	0.291	0.454	0	1
phil_communication	0.796	0.403	0	1
share_annualmeeting	29.46	23.28	0	100
own_facilities	0.375	0.484	0	1
public_facilities	0.607	0.489	0	1
multisportsclub	0.361	0.480	0	1
responsibilties	0.125	0.330	0	1
resources_digital	0.380	0.486	0	1
digital_sport	0.153	0.360	0	1
phil_solidarity	0.846	0.361	0	1
phil_serviceprovider	0.656	0.475	0	1
phil_tradition	0.676	0.468	0	1
phil_commmunity	0.906	0.291	0	1
phil_competitivesports	0.309	0.462	0	1
phil_youth	0.714	0.452	0	1
share_healthsports	11.86	20.46	0	100
course_offers	0.211	0.408	0	1
strategy	0.126	0.332	0	1
members	263.81	411.47	6	7404
inhsqkm	808.40	972.95	13.40	4777.04
lockdown	0.668	0.471	0	1

The differences in the perceived existential threats in the three investigated areas is further displayed in Figure 7.1. It can be seen that around 46% of the clubs see no existential threat with regard to the financial situation, while the share is clearly

lower pertaining to no perceived threats in the areas of volunteers and members. Contrary, more than 15% of the clubs rate the probability of losing members higher than 75%, 12.4% see a high probability of existential problems in the area of binding and recruiting volunteers, while only about 5% see such a high probability with regard to a dangerous financial situation (see Figure 7.1). Thus, the most pressing issues that German clubs are facing caused by the COVID-19 pandemic are not related to their finances, like, for example, in Australia [21], but to their human resources. This corresponds to prior findings in terms of organizational problems of sports clubs, which are most pressing in the areas of recruiting and retaining volunteers and members [4,5]. These problems seem to get worse due to the COVID-19 pandemic.

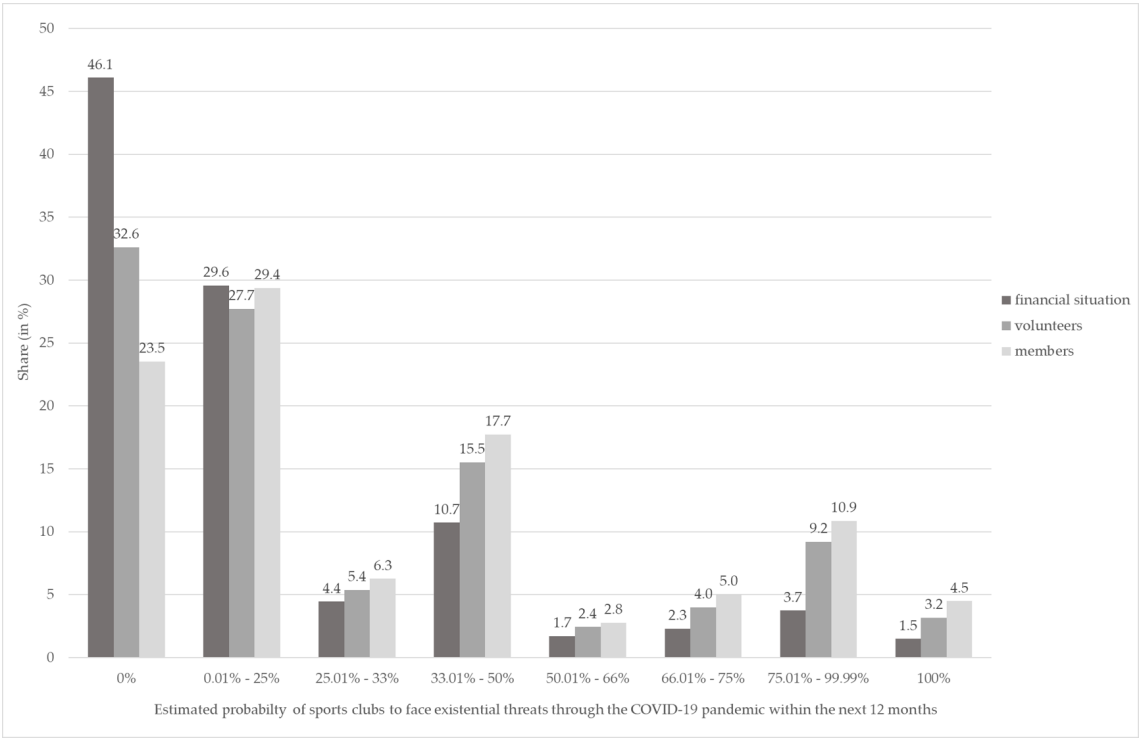

Figure 7.1 Estimated probability of sports clubs to face existential threats through COVID-19.

A correlation analysis between the three dependent variables further shows a positive medium-sized correlation between perceived existential threats in the areas of volunteers and members (r=0.67***), which is logical since volunteers are mainly recruited from the existing member base. Moreover, small positive correlations between a perceived threatening financial situation and existential threats in the area of volunteers (r=0.39***) and members (r=0.41***) is observed. The latter can be explained by the fact that clubs generate the largest share of their revenues from membership fees [29]. With declining numbers of members, the total amount of membership fees would also decrease and may destabilise the financial situation

of clubs. Previous research in the context of financial and volunteer problems has revealed that the two problems are positively correlated [59]. This means that clubs that struggle to manage their finances also tend to struggle with the retainment and recruitment of volunteers and vice versa.

The summary statistics of the independent variables are displayed in Table 7.2. The share of volunteers in fixed positions is 16.6%, and 13.5% of the clubs report a big or very big problem with the commitment of their volunteers. Almost 39% of the clubs have paid employees and 14.2% see a big or very big problem with member identification. Almost 43% of the members participated in the club's social events in 2019, i.e., before the corona pandemic. The average total revenue per member amounts to € 203, and revenue diversification is moderate (0.514), similar to prior research [28]. Almost three-quarters of clubs were able to reach a balanced budget in 2019, which is comparable to Swiss sports clubs [5]. The average total assets per member amounted to € 416, and liabilities per member were € 52 at the end of 2019. Sports clubs collaborated with 1.3 other institutions, and 29% of clubs reported a big or very big problem with political and administrative support. Almost 80% reported communicating with their members regularly, and the member participation rate in the club's annual meeting of 2019 amounted to 29.5%. 37.5% of the clubs owned facilities and 60.7% used public sports facilities. More than a third were multisports clubs. Regarding internal processes and information technology, 12.5% of the clubs reported a big or very big problem with the organization of division of labor and responsibilities, and 38% had a lack of necessary resources to forward digitization. Thus, sports clubs, as non-profit organizations, tend to struggle with information technology [39]. Digital sports offers were provided by 15.3% of clubs during the interruption of sports operations. This share is clearly lower than reported in the qualitative study on sports clubs in Bavaria, where almost two-thirds of the clubs had digital offers [26]. Pertaining to club culture, almost 85% agreed or fully agreed that the club sees itself as a solidarity community. This result underlines the still existent substantial value of solidarity-thinking in sports clubs, which research has previously confirmed [50,51,54]. However, also the club conception as a service provider is followed by almost 66% of the clubs. Thus, a clear distinction between two extreme poles of club types seems blurring, and elements of both types can be incorporated into club culture. More than two-thirds of the clubs attach importance to the cultivation of tradition, and even 90.6% attach importance to community. Around 31% agree or strongly agree with being involved in competitive sports and 71.4% in children's and youth sports. Health sports offers make up 11.9% of all sports offers, and every fifth club generates revenue from course offers. Clarity about strategy and future development is a big or very big problem for 12.6%. Club size is 264 members on average, and clubs are situated in communities with averagely 808

inhabitants per square kilometer. Two-thirds of the clubs took part in the survey during the second lockdown, i.e., later than 1st November 2020.

7.4.2 Regression models

The results of the three fractional logistic regression models are displayed in Table 7.3. Overall, and addressing RQ2, the results show that all capacity dimensions are related to the perceived existential threats of sports clubs through the COVID-19 pandemic.

Pertaining to human resources capacity, all three potential risks are significantly related to the commitment of volunteers, the existence of paid staff, and member identification with the club. Concerning volunteers, the volunteer ratio shows a significant positive, i.e., problem increasing effect in models 1 and 3. This means that with an increasing volunteer ratio and a lack of volunteer commitment, the perceived problem levels caused by COVID-19 increase in the areas of finances and members. This result underlines the importance of enthusiastic and engaged volunteers as a critical element of human resources capacity to fulfill the organizational mission, as prior research has indicated [2]. With increasing bureaucratization and complexity of tasks [43,58], e.g., with regard to funding applications, a high commitment level of volunteers is essential to successfully react to the challenges posed by the corona pandemic. Moreover, a higher share of volunteers among members leads to increases in perceived financial and member problem levels, which is in line with previous findings [28]. With more volunteers, each volunteer's contribution decreases and volunteers might feel less responsible for fulfilling certain tasks, e.g., to apply for financial support programs set up by public institutions during the corona pandemic. Moreover, with more volunteers, it is likely that interests and foci differ, which could hinder the club's well-functioning. In line with this explanation, previous research found that fewer volunteers are doing more work and that a common focus among volunteers is essential [2].

Having paid employees increases the perceived level of existential threats in all three models. The effect is most prominent in model 1: in clubs that employ paid staff, the perceived financial threat increases by 2.3% compared to clubs without paid staff. This effect is not surprising since paid staff is more expensive than volunteers, and thereby, the potential for financial problems is higher even under normal circumstances [56]. This effect is now even more relevant during the COVID-19 pandemic since expenses for employees continue to occur, while specific revenue streams, e.g., from self-operated restaurants, entrance fees to sports events or club festivities, are missing. Similar effects are found in other countries, e.g., Australia [21]. Having paid staff also shows positive, i.e., problem-increasing effects in terms of retaining and recruiting volunteers and members, although the effects are weaker than in model

1. Pertaining to the problem of volunteers, conflicts between volunteers and paid staff might be responsible here since volunteers could get the feeling that their contribution is less relevant, and they are substituted by paid staff [56,58]. Therefore, considerations of hiring paid staff must be thoroughly weighed by clubs, especially in times of crises. Public support measures, such as short-time work allowances by the state, can help in such situations.

Concerning members, the results show that a lack of member identification with the club increases the perceived threats through the COVID-19 pandemic in all three models. These results underline the assumption that a high identification of members with their club, which is particularly found in solidarity-based clubs, decreases member fluctuation [51]. As a consequence, clubs that can rely on loyal members are perceiving challenges caused by COVID-19 to be smaller. Regarding the share of members who took part in the clubs' social events in 2019, significant positive, i.e., problem increasing effects, are found in models 1 and 3. At first sight, this might be surprising since taking part in the club's social events is associated with higher identification of members with the club and other members. However, this variable measures the participation in social events before the pandemic and such events were not possible anymore for more than a year. Thereby, for one, clubs are losing money which is usually generated through social events [82]. Thus, a perceived threat of financial problems can be explained. Second, clubs could also fear losing members if social activities continue to be cancelled since participation in such events is an essential aspect for many club members. Recent research has shown that members are missing the social parts of club life [26].

Pertaining to financial capacity, revenue diversification and breaking even show significant effects in all three models. While increasing revenue diversification increases the perceived threats through COVID-19, having a balanced budget in 2019 decreases them. Clubs that reached a balanced budget in 2019 perceived financial challenges by 2.7% lower than clubs with a deficit from 2019. The effect of revenue diversification confirms a previous study in the context of organizational problems of sports clubs, where revenue diversification was also found to increase volunteer and financial problems [28]. However, a variety of other studies in the non-profit context found that a diversified revenue portfolio is associated with financial health [67,68]. The following considerations might help to explain the results: The largest share in the income portfolio of sports clubs stems from membership fees, with about 55% of the clubs' income [4]. Since all sports clubs receive fees from their members, this internal income source is regarded as a stable, projectable, and reliable source of funding, whereas revenue from external funders like public subsidies, donations, or sponsorship income is less easy to project [59]. Such problems with projections are likely to be reinforced in times of crises, i.e., the COVID-19 pandemic. Therefore, an explanation for the positive effect of revenue diversification in all three models

can be that clubs that had a diversified revenue portfolio in 2019 fear losing certain revenue streams due to COVID-19 now. This decrease of revenue sources could be associated with increased financial issues, but also with the adequate provision of sports programs. Thereby, the perceived risk of losing members and volunteers can be explained. On the contrary, clubs with a balanced budget in 2019 perceive all existential threats to be smaller. This means that as long as sufficient revenue could cover running costs prior to the pandemic, clubs might have the feeling that this surplus helps to overcome the challenges during the crisis. A similar result was found in research on the recovery of sports clubs from natural disasters, where financial reserves were regarded as a buffer in times of crises [7].

As additional elements of financial capacity, this study investigates the effects of assets and liabilities on potential existential threats caused by COVID-19. The results for assets show negative, i.e., problem decreasing, effects in models 1 and 2, while liabilities increase perceived problems in the areas of volunteers and members. Thus, assets seem to function as a security buffer in times of uncertainty, while the opposite applies to liabilities. If clubs have to settle liabilities in times of decreasing revenue due to corona restrictions, this might lead to reductions in other areas, e.g., provision of activities or payment of expense allowances for volunteers. Therefore, clubs might project bigger problems with retaining and recruiting members and volunteers. Overall, the results indicate that the financial capacity of sports clubs, especially with regard to a positive balance between revenues and expenses as well as assets and liabilities, is vital in uncertain times like the corona pandemic.

Regarding structural capacity, various factors are related to the perceived risks of sports clubs. Both elements of the relationship and network capacity dimension show positive and significant effects in all three models. First, with an increasing number of external partnerships, the perceived existential threats through COVID-19 increase, which contrasts the assumptions that relationships are beneficial in times of crises to bundle resources with other clubs, e.g., in providing substitute sports offers [20]. However, it might be particularly difficult in times of social distancing to keep in contact with other clubs. Moreover, schools are closed, and existing partnerships need to be paused. Thereby, no new members can be recruited resulting from partnerships, which might lead to larger perceived problems. The second variable reflecting this capacity dimension reveals that clubs that have a big or very big problem with political and administrative support perceive the three problems higher. The effect is biggest with regard to the financial situation. If a club lacks political or administrative support, the perceived financial problem level increases by 2.8%. Thus, especially in times of crises, support by public institutions, e.g., through grants, loans, and short-time work allowances, is vital for sports clubs. This finding is in accordance with previous studies in the context of troubles caused by natural disasters. Here, public support was a crucial element to recovery [38].

Table 7.3 Results of the fractional logistic regression analyses.

Model	Model 1: Financial Situation		Model 2: Volunteers		Model 3: Members	
Variable	Coef.	ME	Coef.	ME	Coef.	ME
share_volunteers	0.005* (1.790)	0.010	0.004 (1.359)	0.012	0.007*** (2.846)	0.025
commitment_volunteers	0.224*** (2.830)	0.005	0.313*** (4.231)	0.010	0.216*** (3.034)	0.007
paidstaff	0.350*** (5.811)	0.023	0.108* (1.936)	0.008	0.101* (1.941)	0.008
identification	0.244*** (3.305)	0.006	0.395*** (5.771)	0.013	0.462*** (6.960)	0.016
share_socialevents	0.003*** (2.779)	0.020	0.001 (0.767)	0.007	0.003*** (2.969)	0.030
rev_div	0.292** (2.007)	0.022	0.308** (2.279)	0.031	0.260** (2.085)	0.029
revenue_pc	0.000 (1.053)	0.005	0.000 (0.574)	0.001	-0.000 (-0.001)	0.000
breakeven	-0.284*** (-4.872)	-0.027	-0.147*** (-2.655)	-0.020	-0.113** (-2.137)	-0.017
assets_pc	-0.000** (-2.107)	-0.003	-0.000* (-1.722)	-0.002	-0.000 (-0.706)	-0.001
liabilities_pc	0.000 (1.605)	0.001	0.000** (2.508)	0.002	0.000** (2.303)	0.001
cooperations	0.086*** (4.377)	0.018	0.053*** (2.828)	0.014	0.041** (2.259)	0.012
political_support	0.553*** (9.890)	0.028	0.241*** (4.373)	0.015	0.242*** (4.672)	0.016
phil_communication	0.197*** (2.687)	0.021	-0.075 (-1.161)	-0.011	0.032 (0.520)	0.005
share_annualmeeting	0.001 (-0.604)	-0.004	-0.002 (-1.413)	-0.013	-0.004** (-2.289)	-0.023
own_facilities	0.259*** (3.854)	0.016	-0.009 (-0.158)	-0.001	-0.048 (-0.839)	-0.004
public_facilities	-0.237 *** (-3.445)	-0.020	0.051 (0.784)	0.006	-0.005 (-0.086)	-0.001
multisportsclub	-0.016 (-0.215)	-0.001	0.145** (2.136)	0.011	0.067 (1.052)	0.005
responsibilties	0.142* (1.747)	0.003	0.303*** (3.919)	0.009	0.235*** (3.143)	0.007
resources_digital	0.427*** (7.792)	0.026	0.299*** (5.796)	0.024	0.249*** (5.120)	0.021
digital_sport	-0.061 (-0.790)	-0.001	-0.109 (-1.548)	-0.003	-0.102 (-1.580)	-0.003

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Table 7.3 Continued.

Model	Model 1: Financial Situation		Model 2: Volunteers		Model 3: Members	
Variable	Coef.	ME	Coef.	ME	Coef.	ME
phil_solidarity	-0.165** (-2.052)	-0.019	-0.129* (-1.739)	-0.021	-0.047 (-0.658)	-0.008
phil_serviceprovider	0.027 (0.462)	0.002	-0.045 (-0.842)	-0.006	-0.119** (-2.382)	-0.016
phil_tradition	0.240*** (3.815)	0.024	0.143** (2.467)	0.019	0.161*** (3.004)	0.024
phil_commmunity	0.143 (1.388)	0.018	0.113 (1.193)	0.020	0.164* (1.833)	0.032
phil_competitivesports	0.256*** (4.357)	0.012	0.089 (1.582)	0.005	0.048 (0.909)	0.003
phil_youth	0.058 (0.789)	0.006	0.051 (0.751)	0.007	0.015 (0.233)	0.002
share_healthsports	0.004*** (2.663)	0.007	0.001 (0.536)	0.002	0.002* (1.818)	0.006
course_offers	-0.042 (-0.618)	-0.001	-0.012 (-0.190)	-0.001	0.047 (0.805)	0.002
strategy	0.224*** (2.725)	0.005	0.269*** (3.333)	0.008	0.220*** (2.869)	0.006
members	-0.000** (-2.252)	-0.010	-0.000 (-0.414)	-0.002	-0.000 (-1.017)	-0.005
inhsqkm	0.000** (2.487)	0.010	0.000 (0.276)	0.001	0.000 (1.152)	0.006
lockdown	0.172*** (3.029)	0.016	0.075 (1.418)	0.010	0.173*** (3.478)	0.025
sports	included	-	included	-	included	-
state	included	-	included	-	included	-
constant	-3.146*** (-16.202)	-	-1.624 *** (-9.491)	-	-1.487*** (-8.988)	-
Log pseudolikelihood	-1860.60		-2432.18		-2625.47	
Wald chi^2	752.45		505.22		437.36	
p	<.001		<.001		<.001	
Pseudo R^2	0.074		0.046		0.037	
Observations	4295		4287		4279	

Note: z-values in parentheses; robust standard errors; ***p < 0.01, **p < 0.05, *p < 0.1.

The variables reflecting internal club communication show different effects. First, regular communication of clubs with their members shows a positive and significant effect in model 1. This result is surprising since good communication was associated with wellfunctioning organizations [2]. An explanation might be drawn from a methodological standpoint. Since the data are cross-sectional, there might be an issue of reverse-causality, meaning that due to more serious perceived financial problems, regular communication could be necessary. The second variable reflecting internal communication shows that a higher share of members participating in the club's annual meeting in 2019 is associated with lower perceived threats of losing members. Here, a one percent increase in the member participation rate leads to a 2.3% decrease in the perceived member problem. Higher participation of members in club meetings and democratic decision-making processes is associated with stronger bonds of members to their club. It particularly occurs in clubs that follow a solidarity-based philosophy [54]. In such clubs, member fluctuation is low and therefore, perceived threats to lose members are smaller.

Regarding sports facilities, significant effects are only evident in model 1. Clubs that are in possession of their own facilities project an existential threat in the field of finances to be 1.6% higher than clubs without their own facilities. A similar effect was found in previous research [28]. On the contrary, clubs that use public sports facilities perceive the financial problem to be smaller. Here, the perceived risk of facing a financial problem decreases by 2% if a club uses public sports facilities. Explanations for these results can be drawn from associated expenses of owning facilities or using public facilities. Facility expenses for own sports facilities are among the highest costs that occur in non-profit sports clubs. In Germany, expenses for maintenance and operation of own sports facilities were the second-highest expense position in 2017 [82]. The situation was similar in Switzerland [5]. Although sports facilities are closed due to corona, related expenses for own facilities still occur. On the other hand, the usage of public facilities is either free or available for a small fee [4,72]. During the closure of public facilities, communities partly released clubs from paying a usage fee or reduced the fee, thus providing indirect financial support.

Two further variables of the infrastructure and processes dimension are significantly associated with perceived threats. First, if the division of labor and responsibilities within sports clubs is unclear and problematic, clubs rate the probability of facing existential threats in all three areas higher. Second, a lack of resources to forwarding digitization is associated with higher potential risks due to the COVID-19 pandemic, suggesting that digitally better-prepared and equipped clubs face smaller problems during the pandemic [83]. Digital tools can, e.g., help to keep in contact with members and volunteers, take part in online information events of sports association, and apply for funds. Thus, clear structures, responsibilities, and sufficient resources to innovate are important for sports clubs to remain sustainable in times

of crises. Interestingly, offering digital sports programs did not significantly affect the probability of facing existential problems. Previous research has revealed that participation in digital sports offers varied among members and was lower in some areas than in usual sports activities. Moreover, direct social contact and a feeling of community could not be replaced by digital activities [26]. Thus, although digital sports programs could be a way of alternative sports provision during corona restrictions [20,32], clubs do not seem to rate such offers as a protective shield against the crisis. Nevertheless, better-equipped clubs in terms of innovative measures, especially regarding digitization, perceive all three existential threats to be smaller. This result underlines the importance of innovative measures and instruments to deal with challenging situations [27].

With regard to club culture, various interesting results are obtained. Clubs which see themselves as a solidarity community rate the probability of existential threats in the areas of finances and volunteers smaller. In clubs following this solidarity thinking, social relationships between the club and its members are strong, voluntary engagement is high and fluctuation is low [51]. Therefore, members and volunteers are likely to be loyal, also in times of crises. If members do not leave the club, clubs will receive membership fees which help to secure their financial situation. Interestingly, clubs that see themselves as a serviceprovider rate the probability of existential problems concerning retaining and recruiting members to be smaller. Based on the two ideal types of sports clubs, this result would contradict the assumption that member fluctuation in service-oriented clubs is high since the membership is goal-oriented [51]. However, it needs to be noted that the two extreme poles of ideal club types are rather hypothetical. In reality, elements of both types can be part of a club's culture, especially in larger clubs [50]. Clubs that attach importance to the cultivation of tradition rate the probability of existential problems higher. This finding is in line with prior research [28] and suggests that adhering to traditions constraints clubs in dealing with unexpected challenges like the COVID-19 pandemic. Therefore, a certain openness helps to adapt to new situations. Clubs with a focus on competitive sports rate the probability of receiving financial problems higher. Competitive sport generally requires more financial resources [40] and since few exceptions for training possibilities for squad athletes existed during corona restrictions, expenses for these activities remained. Here, public support is again vital and accessible as clubs with squad athletes were found to receive more public subsidies before the pandemic [84]. Thus, clubs offering competitive sports could address potential financial threats by applying for additional funds.

Higher shares of health sports offers are significantly associated with a higher perceived probability of existential problems related to finances and members. This finding confirms that clubs that offer health sports tend to follow service-oriented goals to satisfy individual member interest. Members are rather regarded as cus-

tomers who focus on cost-benefit considerations, i.e., on sports offers, but not on social aspects. Therefore, membership relations are rather weak and members are less loyal if the sports activities are interrupted. If members in this situation leave the club, the club faces both declining membership numbers and fewer membership fees.

Lastly, a lack of a clear strategy is associated with higher perceived threats in all three areas. This finding is in line with previous studies [28,47] and suggests that having a clear plan for the future and a strategic concept is useful to deal with unpredictable challenges like the corona pandemic. Investing in long-term planning and establishing a strategy is therefore helpful especially (but not only) in times of crises [77].

Finally, differences between sports can be observed. The results show that some sports are associated with a smaller (i.e., a negative effect) or bigger (a positive effect) probability of existential threats. For example, tennis was significant and negative in two models (1 and 3), while judo was significant and positive in all three models. Football showed positive effects in models 1 and 2, but no significant effect in model 3. Dancing was positive in model 1 and 3, and shooting in models 2 and 3. Rowing and volleyball clubs see fewer financial problems, while boxing, handball, and equestrian perceive higher potential risk levels. Sailing is associated with fewer risks of losing volunteers. Swimming, skittles, and karate clubs project more substantial issues with member retention, while clubs offering basketball and canoe see fewer problems in this area. Thus, the different restrictions concerning the type of sport (e.g., contact sports like judo, karate), where it could be practiced (e.g., outdoor like tennis, rowing, canoe), and whether it is a team sport (e.g., basketball) played a role in assessing the likelihood of facing problems. Team sports could be expected to lose fewer members since the bonding between other team members and the club is stronger, an observation that is confirmed even by large and highly professionalized clubs [13,85].

7.5 Conclusions

The purpose of this study was to give first insights on the current situation of nonprofit sports clubs in Germany under the impact of the COVID-19 pandemic. The study contributes to the body of research on the organizational capacity of a particular type of non-profit organizations and its role in keeping sustainable in times of crises. The study sheds light on how sports clubs perceive key challenges in uncertain times and which factors help or hinder them in fulfilling their mission.

Overall, the results of the underlying study show that non-profit sports clubs in Germany rate the probability of facing existential problems caused by the COVID-19 pandemic to be of varying degrees in the core areas of finances, volunteers, and

members. While just under half of the clubs see no financial threats coming, retaining and recruiting volunteers and especially, members, is a bigger issue for clubs. Different factors play a role in the perception of the potential existential problems under investigation. A general pattern can be seen with regard to the overall club conception. Clubs that show a strong sense of solidarity perceive the threats to be somewhat smaller. On the other side, clubs that incorporate elements that indicate a stronger service-orientation and, aligned with this aspect, show a trend toward professionalization of club management (e.g., by employing paid staff and a diverse revenue structure) perceive larger risks in the future. However, the results also suggest that elements of both ideal club types (solidary-based vs. serviceoriented clubs) can reduce or increase perceived problem pressure.

7.5.1 Implications

This study has scientific and practical implications. The results confirm previous research that non-profit sports clubs are facing challenges in different areas [28]. The clubs' organizational capacity helps dealing with these challenges, though weaknesses in certain areas, i.e., gaps in capacities, should be addressed. Particularly in challenging times as caused by the COVID-19 pandemic, capacity building can help organizations to respond effectively to these new situations [71]. The results of this study underline that weaknesses in certain areas of capacity, e.g., clear internal structures and responsibilities, innovative measures and resources to forward digitization, and strategic planning, constrain clubs in following their goals, fulfill their mission and thereby remain sustainable. Therefore, approaches to capacity building [71] and recent investigations into the readiness of organizations to build capacity [44] need to be enlarged. While this study confirms that adaptions in certain parts of capacity are required, it is unclear in how far clubs will be able to react to these challenges. Therefore, it is necessary to further examine sports clubs' readiness to adapt and potentially change in situations of crises to become more resilient to unpredicted external shocks [16].

Practical implications for public institutions and sports associations can be derived. The results show that different clubs need different support measures. Financial support programs, which have been installed by the federal states and corresponding sports federations, might be helpful for clubs that have to meet financial obligations. However, the financial situation of clubs is not the most pressing issue. This result is supported by the fact that many public financial aid funds were not exhausted [85]. Contrary, more clubs are struggling with retaining and recruiting members and volunteers. A certain amount of member fluctuation is common in sports clubs, meaning that members are leaving and new people are joining the clubs. Though, in times of corona, club entries rather did not occur [85]. There-

fore, clubs must be shown a clear perspective on how and under what circumstances sports operations can be resumed. Moreover, sports associations should set up support programs and consultancy for clubs for the time of recovery after the crisis to get people (back) into the sports clubs.

7.5.2 Limitations and future research

This study has some limitations. First, the study uses cross-sectional data. Thus, reverse-causality can be an issue in the regression models. Moreover, the dependent variables reflect subjective perceptions about potential existential threats in the future. Especially in the current uncertain times, situations can change rapidly. Such a change happened during the survey when the second lockdown was decided, and club activities were interrupted again. The results of the regression models show that the lockdown significantly influenced the perception of clubs about potential threats. Clubs that took part after the lockdown had started rated two of the three potential existential problems higher. However, it is unclear if the perceptions about potential problems measured in winter 2020 will actually result in real problems for clubs in the upcoming year.

Future research should address the shortcomings of the underlying study by investigating the impact of the COVID-19 pandemic on sports clubs using objective measures and longitudinal data. This means that real changes in membership numbers, volunteers, employees, revenues and expenses of sports clubs need to be examined and related to organizational and structural factors. These factors should also cover aspects like received support during the crisis (e.g., financial aid or consultancy by public institutions or sports associations) and implemented measures as reactions to the crisis (e.g., stronger digitization of club operations, new funding opportunities like fundraising). Finally, it would be interesting to examine more closely whether clubs that were already better positioned digitally before the pandemic were better able to cope with the crisis.

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7.6 References

1. Grix, J.; Brannagan, P.M.; Grimes, H.; Neville, R. The impact of Covid-19 on sport. *Int. J. Sport Policy Politics* **2021**, *13*, 1-12.
2. Doherty, A.; Misener, K.; Cuskelly, G. Toward a Multidimensional Framework of Capacity in Community Sport Clubs. *Nonprofit Volunt. Sect. Q.* **2014**, *43*, 124S-142S.
3. Horch, H.D. On the socio-economics of voluntary associations. *Volunt. Int. J. Volunt. Nonprofit Organ.* **1994**, *5*, 219-230.
4. Breuer, C.; Feiler, S.; Rossi, L. *Sports Clubs in Germany: More than just Exercise*; Key Results of the 7th Wave of the Sport Development Report (2017/2018) and Selected Developments over the Last 15 Years; Bundesinstitut für Sportwissenschaft: Bonn, Germany, 2020.
5. Lamprecht, M.; Bürgi, R.; Gebert, A.; Stamm, H. *Sportvereine in der Schweiz. Entwicklungen, Herausforderungen und Perspektiven*; Bundesamt für Sport: Magglingen, Switzerland, 2017.
6. Horch, H.D. *Geld, Macht und Engagement in Freiwilligen Vereinigungen*; Grundlage einer Wirtschaftssoziologie von Non-Profit-Organisationen; Duncker & Humblot: Berlin, Germany, 1992.
7. Wicker, P.; Filo, K.; Cuskelly, G. Organizational Resilience of Community Sport Clubs Impacted by Natural Disasters. *J. Sport Manag.* **2013**, *27*, 510-525.
8. DOSB. *Bestandserhebung 2020*; Deutscher Olympischer Sportbund: Frankfurt am Main, Germany, 2020.
9. Nagel, S.; Schlesinger, T.;Wicker, P.; Lucassen, J.; Hoeckman, R.; van derWerff, H.; Breuer, C. Theoretical Framework. In *Sport clubs in Europe. A Cross-National Comparative Perspective*; Breuer, C., Hoeckman, R., Nagel, S., van der Werff, H., Eds.; Springer: Cham, Switzerland, 2015; pp. 7-27.
10. Burrmann, U.; Seyda, M.; Heim, R.; Konowalczyk, S. Individualisierungstendenzen im Sport von Heranwachsenden–revisited. *Sport Ges.* **2016**, *13*, 113-143.
11. Mutz, M. Sport- und Bewegungsaktivitäten von Kindern und Jugendlichen in Deutschland–ein Update des Forschungsstands. In *Vierter Deutscher Kinder- und Jugendsportbericht. Gesundheit, Leistung und Gesellschaft*; Breuer, C., Joisten, C., Schmidt, W., Eds.; Hofmann: Schorndorf, Germany, 2020; pp. 39-50.
12. Nagel, S.; Elmose-Østerlund, K.; Ibsen, B.; Scheerder, J. *Functions of Sports Clubs in European Societies-A Cross-National Comparative Study*; Springer: Cham, Switzerland, 2020.

13. Rieger, M. So Geht es den Sportvereinen nach einem Jahr Lockdown. Available online: https://www.deutschlandfunk.de/corona-und-breitensport-so-geht-es-den-sportvereinen-nach.1346.de.html?dram:article_id=494486 (accessed on 19 April 2021).

14. Müller, A. *Mitgliederschwund in Sächsischen Sportvereinen-Insbesondere im Kinder- und Jugendsport*; LSB Sachsen: Leipzig, Germany, 2021.

15. Deutscher Bundestag. Sportvereine haben eine Million Mitglieder verloren. Available online: https://www.bundestag.de/presse/hib/836454-836454 (accessed on 22 April 2021).

16. Doherty, A.; Millar, P.; Misener, K. Return to community sport: Leaning on evidence in turbulent times. *Manag. Sport Leis.* **2020**.

17. Findlay-King, L.; Reid, F.; Nichols, G. *Community Sports Clubs' Response to Covid-19*; UK Sports Volunteering Research Network: Newcastle, Sheffield, UK, 2020.

18. Jackman, F.;Way, R. *Impacts of COVID-19 on Local Sports Organizations*; Nationwide Survey Results; Sport for Life: Victoria, BC, Canada, 2020.

19. Escamilla-Fajardo, P.; Núñez-Pomar, J.M.; Calabuig-Moreno, F.; Gómez-Tafalla, A.M. Effects of the COVID-19 Pandemic on Sports Entrepreneurship. *Sustainability* **2020**, *12*, 8493.

20. Elliott, S.; Drummond, M.J.; Prichard, I.; Eime, R.; Drummond, C.; Mason, R. Understanding the impact of COVID-19 on youth sport in Australia and consequences for future participation and retention. *BMC Public Health* **2021**, *21*, 448.

21. Walker, P.; Stockwell, M. *Impact of COVID-19 on Community Sport*; Australian Sports Foundation: Canberra, Australia, 2020.

22. Heeß, J. Lockerungsübungen mit Abstand. Available online: https://www.deutschlandfunkkultur.de/breitensport-in-dercoronapandemie-lockerungsuebungen-mit.966.de.html?dram:article_id=484826 (accessed on 19 April 2021).

23. Wheeler, T. Vereinssport in der Coronakrise. Schlingerkurs für Amateure und Profis. Available online: https://www.deutschlandfunkkultur.de/vereinssport-in-der-coronakrise-schlingerkurs-fuer-amateure.966.de.print?dram:article_id=488753 (accessed on 19 April 2021).

24. Von Lieben, M. Verunsicherung an der Basis. Coronakrise im Breitensport. Available online: https://www.deutschlandfunk.de/coronakrise-im-breitensport-verunsicherung-an-der-basis.1346.de.html?dram:article_id=476824 (accessed on 19 April 2021).

25. Evans, A.B.; Blackwell, J.; Dolan, P.; Fahlén, J.; Hoekman, R.; Lenneis, V.; McNarry, G.; Smith, M.; Wilcock, L. Sport in the face of the COVID-19 pandemic: Towards an agenda for research in the sociology of sport. *Eur. J. Sport Soc.* **2020**, *17*, 85-95.

26. Kehl, M.; Strobl, H.; Tittlbach, S.; Loss, J. „Der Mensch, der Handball spielt, braucht den Ball, den Kontakt und die Gemeinschaft"–Veränderungen im Sportangebot durch die COVID-19 Pandemie und deren Bedeutung für Sportvereine. *Gesundheitswesen* **2021**, *83*, 159-165.

27. Ratten, V. Coronavirus disease (COVID-19) and sport entrepreneurship. *Int. J. Entrep. Behav. Res.* **2020**, *26*, 1379-1388.

28. Wicker, P.; Breuer, C. Understanding the importance of organizational resources to explain organizational problems: Evidence from nonprofit sport clubs in Germany. *Voluntas* **2013**, *24*, 461-484.

29. Feiler, S.; Wicker, P.; Breuer, C. Nonprofit Pricing: Determinants of Membership Fee Levels in Nonprofit Sports Clubs in Germany. *Int. J. Sport Financ.* **2019**, *14*, 262-277.

30. Hertwig, R.; Liebig, S.; Lindenberger, U.; Wagner, G.G. *Wie Gefährlich ist COVID-19? Die Subjektive Risikoeinschätzung Einer Lebensbedrohlichen COVID-19-Erkrankung im Frühjahr und Frühsommer 2020 in Deutschland. SOEPpapers Nr. 1095*; DIW Berlin: Berlin, Germany, 2020.

31. Skinner, J.; Smith, A.C.T. Introduction: Sport and COVID-19: Impacts and challenges for the future (Volume 1). *Eur. Sport Manag. Q.* **2021**.

32. Fitzgerald, H.; Stride, A.; Drury, S. COVID-19, lockdown and (disability) sport. *Manag. Sport Leis.* **2020**.

33. Reade, J.J.; Singleton, C. Demand for public events in the COVID-19 pandemic: A case study of European football. *Eur. Sport Manag. Q.* **2020**.

34. Parrish, C.; Lam, M. Impact of the COVID-19 pandemic on a community soccer organization in the United States: The case of Asheville City Soccer Club. *Soccer Soc.* **2021**, *22*, 138-151.

35. Herold, E.; Boronczyk, F.; Breuer, C. Professional Clubs as Platforms in Multi-Sided Markets in Times of COVID-19: The Role of Spectators and Atmosphere in Live Football. *Sustainability* **2021**, *13*, 2312.

36. WLSB. *Studie zu den Auswirkungen der Corona-Pandemie auf die Vereine. Zwischenbericht*; Württembergischer Landessportbund: Stuttgart, Germany, 2020.

37. Barrett, D.; Coleman, R. *Returning to Action: Evaluating Organisational Preparedness in the Wake of the Covid-19 Pandemic*; Sheffield Hallam University: Sheffield, UK, 2021.

38. Filo, K.; Cuskelly, G.;Wicker, P. Resource utilisation and power relations of community sport clubs in the aftermath of natural disasters. *Sport Manag. Rev.* **2015**, *18*, 555-569.

39. Hall, M.H.; Andrukow, A.; Barr, C.; Brock, K.; de Wit, M.; Embuldeniya, D.; Jolin, L.; Lasby, D.; Lévesque, B.; Malinsky, E.; et al. *The Capacity to Serve: A Qualitative Study of the Challenges Facing Canada's Nonprofit and Voluntary Organizations*; Canadian Centre for Philanthropy: Toronto, ON, Canada, 2003.

40. Nagel, S. Goals of sports clubs. *Eur. J. Sport Soc.* **2008**, *5*, 121-141.

41. Misener, K.; Doherty, A. A case study of organizational capacity in nonprofit community sport. *J. Sport Manag.* **2009**, *23*, 457-482.

42. Doherty, A.; Cuskelly, G. Organizational Capacity and Performance of Community Sport Clubs. *J. Sport Manag.* **2019**, *34*, 240-259.

43. Sharpe, E.K. Resources at the grassroots of recreation: Organizational capacity and quality of experience in a community sport organization. *Leis. Sci.* **2006**, *28*, 385-401.

44. Millar, P.; Doherty, A. Readiness to build capacity in community sport organizations. *Manag. Sport Leis.* **2021**, *26*, 22-40.

45. Nowy, T.; Feiler, S.; Breuer, C. Investigating Grassroots Sports' Engagement for Refugees: Evidence From Voluntary Sports Clubs in Germany. *J. Sport Soc. Issues* **2020**, *44*, 22-46.

46. Wicker, P.; Breuer, C. Scarcity of resources in German non-profit sport clubs. *Sport Manag. Rev.* **2011**, *14*, 188-201.

47. Wicker, P.; Breuer, C. Exploring the organizational capacity and organizational problems of disability sport clubs in Germany using matched pairs analysis. *Sport Manag. Rev.* **2014**, *17*, 23-34.

48. Swierzy, P.; Wicker, P.; Breuer, C. The impact of organizational capacity on voluntary engagement in sports clubs: A multi-level analysis. *Sport Manag. Rev.* **2018**, *21*, 307-320.

49. Wicker, P.; Swierzy, P.; Breuer, C. Willingness-to-volunteer versus willingness-to-pay in sports clubs: How organizational capacity affects individual decisions. *Eur. J. Sport Soc.* **2018**, *15*, 332-351.

50. Heinemann, K.; Schubert, M. *Der Sportverein*; Hofmann: Schorndorf, Germany, 1994.

51. Baur, J.; Burrmann, U.; Nagel, M. Mitgliedschaftsbeziehungen in Sportvereinen. In *Integrationsleistungen von Sportvereinen als Freiwilligenorganisationen*; Baur, J., Braun, S., Eds.; Meyer & Meyer: Aachen, Germany, 2003; pp. 159-190.

52. Emrich, E.; Pitsch, W.; Papathanassiou, V. *Die Sportvereine-Ein Versuch auf empirischer Grundlage*; Hofmann: Schorndorf, Germany, 2001.

53. Baur, J.; Braun, S. *Der vereinsorganisierte Sport in Ostdeutschland*; Sport und Buch Strauß: Köln, Germany, 2001.

54. Braun, S.; Nagel, M. Zwischen Solidargemeinschaft und Dienstleistungsorganisation-Mitgliedschaft, Engagement und Partizipation im Sportverein. In *Organisationsentwicklungen und De-Institutionalisierungsprozesse im Sport*; Alkemeyer, T., Rigauer, B., Sobiech, G., Eds.; Hofmann: Schorndorf, Germany, 2005; pp. 123-150.

55. Breuer, C.; Feiler, S.; Llopis-Goig, R.; Elmose-Østerlund, K. *Characteristics of European Sports Clubs*; A Comparison of the Structure, Management, Voluntary Work and Social Integration among Sports Clubs Across Ten European Countries; University of Southern Denmark: Odense, Denmark, 2017.

56. Heinemann, K.; Horch, H.D. *Elemente einer Finanzsoziologie Freiwilliger Vereinigungen*; Enke: Stuttgart, Germany, 1991.

57. Wicker, P.; Hallmann, K. A multi-level framework for investigating the engagement of sport volunteers. *Eur. Sport Manag. Q.* **2013**, *13*, 110-139.

58. Cuskelly, G. Volunteer retention in community sport organisations. *Eur. Sport Manag. Q.* **2004**, *4*, 59-76.

59. Coates, D.; Wicker, P.; Feiler, S.; Breuer, C. A bivariate probit examination of financial and volunteer problems of non-profit sport clubs. *Int. J. Sport Financ.* **2014**, *9*, 230-248.

60. Hoff, K.; Krimmer, H.; Kuhn, D.; Tahamz, B. *Ländlich Engagiert, Wirtschaftliche Aktiv, Professionalisiert*; Welche Engagementfaktoren beeinflussen pandemiebedingte Problemlagen zivilgesellschaftlicher Organisationen besonders? Stifterverband: Berlin, Germany, 2021.

61. Breuer, C.; Feiler, S. *Board Members in Sports Clubs in Germany*; Sport Development Report for Germany 2017/2018-Part 3; Bundesinstitut für Sportwissenschaft: Bonn, Germany, 2020.

62. Breuer, C.; Feiler, S. *Coaches and Trainers in Sports Clubs in Germany*; Sport Development Report for Germany 2017/2018-Part 2; Bundesinstitut für Sportwissenschaft: Bonn, Germany, 2020.

63. Young, D.R. Why study nonprofit finance? In *Financing Nonprofits. Putting Theory into Practice*; Young, D.R., Ed.; AltaMira Press: Lanham, MD, USA, 2007; pp. 3-20.

64. Vilain, M. *Finanzierungslehre für Nonprofit-Organisationen*; Zwischen Auftrag und ökonomischer Notwendigkeit; VS Verlag für Sozialwissenschaften: Wiesbaden, Germany, 2006.

65. Wicker, P.; Breuer, C.; Hennigs, B. Understanding the interactions among revenue categories using elasticity measures-Evidence from a longitudinal sample of non-profit sport clubs in Germany. *Sport Manag. Rev.* **2012**, *15*, 318-329.

66. Hung, C.; Hager, M.A. The Impact of Revenue Diversification on Nonprofit Financial Health: A Meta-analysis. *Nonprofit Volunt. Sect. Q.* **2019**, *48*, 5-27.

67. Chang, C.F.; Tuckman, H.P. Revenue diversification among non-profits. *Voluntas* **1994**, *5*, 273-290.

68. Carroll, D.A.; Stater, K.J. Revenue diversification in nonprofit organizations: Does it lead to financial stability? *J. Public Adm. Res. Theory* **2009**, *19*, 947-966.

69. Chikoto, G.L.; Neely, D.G. Building Nonprofit Financial Capacity:The Impact of Revenue Concentration and Overhead Costs. *Nonprofit Volunt. Sect. Q.* **2014**, *43*, 570-588.

70. Prentice, C.R. Understanding Nonprofit Financial Health: Exploring the Effects of Organizational and Environmental Variables. *Nonprofit Volunt. Sect. Q.* **2016**, *45*, 888-909.

71. Millar, P.; Doherty, A. Capacity building in nonprofit sport organizations: Development of a process model. *Sport Manag. Rev.* **2016**, *19*, 365-377.

72. Heinemann, K. Sport and the welfare state in Europe. *Eur. J. Sport Sci.* **2005**, *5*, 181-188.

73. Hoff, K.; Kuhn, D.; Tahamz, B. *Digital durch die Krise*; Digitalisierungsschub der Zivilgesellschaft als Chance und Herausforderung neuen Engagements: Essen, Germany, 2021.

74. Nagel, S. *Sportvereine im Wandel*; Akteurtheoretische Analysen zur Entwicklung von Sportvereinen; Hofmann: Schorndorf, Germany, 2006.

75. Koski, P. Organizational effectiveness of Finnish sports clubs. *J. Sport Manag.* **1995**, *9*, 85-95.

76. Klenk, C.; Schlesinger, T.; Nagel, S. Zum Zusammenhang von Mitgliederinteressen und Vereinszielen. In *Der Sportverein-Versuch einer Bilanz*; Thieme, L., Ed.; Hofmann: Schorndorf, Germany, 2017; pp. 273-294.

77. Morrison, K.A.; Misener, K.E. Exploring the conditions for strategic planning in nonprofit community sport. *Sport Manag. Rev.* **2021**.

78. Wicker, P.; Feiler, S.; Breuer, C. Organizational mission and revenue diversification among non-profit sports clubs. *Int. J. Financ. Stud.* **2013**, *1*, 119-136.

79. Rösel, F.; Spüntrup, S.S. Stadt oder Land–Wer ist stärker von Corona betroffen? *Ifo Dresden Berichtet* **2020**, *27*, 9-11.

80. Papke, L.E.; Wooldridge, J.M. Econometric methods for fractional response variables with an application to 401(k) plan participation rates. *J. Appl. Econom.* **1996**, *11*, 619-632.

81. Hair, J.F.; Black,W.C.; Babin, B.J.; Anderson, R.E. *Multivariate Data Analysis. A Global Perspective*, 7th ed.; Pearson Prentice Hall: Upper Saddle River, NJ, USA, 2010.

82. Breuer, C.; Feiler, S. *Sports Clubs in Germany: Organisations and Internal Stakeholders*; Sport Development Report for Germany 2017/2018-Part 1; Federal Institute of Sports Science: Bonn, Germany, 2020.

83. Rieger, M. Corona trifft den Deutschen Breitensport hart. Available online: https://www.deutschlandfunk.de/vereine-imlockdown-corona-trifft-den-deutschen.724.de.html?dram:article_id=497929 (accessed on 28 May 2021).

84. Feiler, S.; Wicker, P.; Breuer, C. Public subsidies for sports clubs in Germany: Funding regulations vs. empirical evidence. *Eur. Sport Manag. Q.* **2019**, *19*, 562-582.

85. Rieger, M. Große Vereine, Große Probleme. Available online: https://www.deutschlandfunk.de/breitensport-waehrend-coronagrosse-vereine-grosse-probleme.1346.de.html?dram:article_id=491772 (accessed on 19 April 2021).

8 Conclusion

8.1 Overall discussion of the results

The findings of the five papers of this dissertation contribute to two key areas within nonprofit finance of a certain type of organisation: 1) core income sources and 2) financial problems of nonprofit sports clubs. Two main research questions guided the investigation.

Pertaining to the first research question, the three core revenue sources are examined in three separate studies. The first study on membership fees (Feiler et al., 2019a) takes a slightly different approach than the studies examining donations (Feiler et al., 2015) and public subsidies (Feiler et al., 2019b). Membership fees are the core income source of nonprofit sports clubs since clubs first and foremost provide benefits for their members, i.e., associational benefits in terms of benefits theory (Young, 2017). Therefore, the question is not whether clubs receive membership fees (as is for the other two revenue sources) since all clubs, by constitution, rely on resources from their members (Heinemann & Horch, 1981, 1991). The question is, instead, how clubs decide about the level of membership fees charged. Pricing approaches and characteristics of nonprofit sports clubs served as potential determinants for membership fee levels. The following key findings provide a deep insight into how membership fees are set.

First, membership fees in nonprofit sports clubs in Germany are comparatively low, thereby providing low entry barriers for people from many different population groups. Pricing decisions can thereby be regarded as a trade-off between fulfilling social goals and simultaneously staying financially healthy (Pajas & Vilain, 2004). Second, membership fees for kids are lowest and compensated by higher fees for adults, thus following the solidarity principle (Horch, 1994). Third, membership fees are mainly related to occurring costs for core sports-related matters like coaches and facilities. Interestingly, sports equipment expenses do not enter the calculation of membership fees, meaning that further income sources are required to cover these costs. Public subsidies would be an adequate source here since the results of the third study on the generation of public support revealed that sports equipment can be subsidised (Feiler et al., 2019b). Fourth, competitive sport is more expensive, underlined by the results that clubs focusing on talent promotion charge higher membership fees for all groups. Thereby, all members pay for something they do not necessarily receive direct benefit from, which is in accordance with the principle of solidarity (Horch, 1994) and benefits theory, which postulates that sports clubs produce associational benefits (Bowman, 2017; Young, 2017). Fifth, a diversified income portfolio, i.e., generating revenue from different sources, is a possibility to

charge lower membership fees since other revenue, e.g., subsidies can help cover occurring costs, such as sports equipment costs (Feiler et al., 2019b). Lastly, clubs that face financial problems use the option of increasing membership fees to stabilise the financial situation in the confidence that members will nevertheless remain loyal to them in tense financial situations (Swierzy et al., 2018).

The two studies on donations and public subsidies investigate factors related to their reception and, in a second step, the overall amount of money received. While donations were examined based on nonprofit economic theories, sports policy regulations and related funding principles served as a guiding framework for the investigations on public subsidies. The key results can be summed up as follows. First, the share of clubs receiving donations is higher than that of clubs receiving public subsidies from different governmental levels. This result underlines that sports clubs provide group and public benefits to smaller or larger parts of society (Young, 2017), which in turn support clubs by donating to them. On the other hand, it is surprising that about half of the clubs miss out on public subsidies despite their eligibility for support. Potential reasons could be complex application mechanisms or missing knowledge of funding possibilities. Second, providing elite sport in the form of squad athletes is supported both with donations and public subsidies. These results underpin that the traditional area of sports clubs in terms of competitive sport is both valued by donors and public institutions. Sports clubs build the basis of the sports system in Germany (as in many other countries). Without clubs, participation in elite sport at national and international levels would not be possible. Bringing these results together with what study one on the setting of membership revealed (Feiler et al., 2019a), namely that competitive sport is expensive and that clubs providing competitive sport charge higher membership fees, it is valuable for clubs that they can rely on two other income sources to support the provision of competitive sport. Third, youth promotion as part of the clubs' philosophy is an area which is supported both by donations and public subsidies, showing that this population group is traditionally and still today of major importance to society and on the agenda of sports policy. Fourth, health sport is not supported by donations or public subsidies. These results are surprising since promoting health sports programmes is part of many sports policies due to their positive externalities. Fifth, particularly caring for people with a migration background only increases the likelihood of receiving donations but does not relate to receiving subsidies, although integration promotion is part of sports policies. Sixth, clubs with their own sports facilities are both supported by donations and public subsidies. Donors value an adequate infrastructure, while public institutions value that clubs take over public tasks in the provision and maintenance of facilities.

Pertaining to the second research question, two studies applying different approaches were conducted. For one, study four of this dissertation (Feiler et al.,

2023) evaluates which objective financial measures best reflect subjectively reported financial problems to gain insights into the concrete financial circumstances of sports clubs. Study five (Feiler & Breuer, 2021) investigates financial problems as well as volunteer and member problems under the circumstances of the COVID-19 pandemic, i.e., in times of crisis. Focusing on the financial problem in study five, the key results of both studies indicate the following: First, financial problems are, in both studies, rated as rather low to medium-sized. Study four shows that, using a subjectively measured scale, every tenth sports club reported a financial problem that was big, very big or even existence-threatening, while almost half of the clubs (46.7%) stated having no financial problems at all. Study five measures the likelihood of existential financial threats due to the pandemic with 17.6%, while a similar share of clubs as in study four indicates no financial threats at all (46.1%). Thus, sports clubs remained relatively financially sustainable even in times of crisis. Second, the operating margin in study four and the break-even variable in study five were both negatively related to financial problems, i.e., problem decreasing. This result underpins that covering costs with revenue is a key goal and indicator for the clubs' financial health (Young, 2007b). Third, revenue diversification was found to be associated with bigger financial problems in both studies. However, looking at changes in perceived financial problems over time, an increase in revenue diversity is associated with an improvement in the financial situation. Fourth, employing paid staff is associated with bigger financial threats in study five and is negatively associated with improvements in the financial situation over time in study four. Thus, employing paid staff in addition to the core human resource of volunteers in sports clubs needs to be evaluated wisely. Fifth, expenses for facilities are associated with bigger financial problems in both studies. In this regard, the results of the first three studies indicate that all three income sources are positively related to facility expenses, thereby contributing to cover facility costs and potentially stabilising the financial situation of clubs.

Looking at the results of the five studies together to answer the research questions, it can be summarised that, as discussed above, various factors are relevant for the three income sources (RQ1) and financial problems (RQ2). Some of these factors, e.g., competitive sport, youth promotion, and sports facilities, are relevant elements for all three income sources, while others, like a commercial orientation that has a negative effect on donations, are mainly related to one revenue source. Moreover, some factors are related to the income sources but simultaneously to financial problems. For example, competitive sport is positively related to all three income sources, meaning clubs receive more money through being involved in competitive sport. But at the same time, competitive sport increases financial problems in times of crisis. Also, a higher degree of revenue diversification can have decreasing effects on membership fees, while it can, in the short run, increase financial

problems. Therefore, the sources of income should not be considered individually in isolation but always as an overarching financing construct, taking into account the overall financial health of the club as well as potential interaction effects between the revenue sources, as suggested by benefits theory (Young, 2017) and proven in existing research on nonprofit sports clubs (Wicker et al., 2012). In conclusion, the findings of the five studies suggest that financial management in sports clubs must consider the complex structures of the different funding sources while respecting the financial health and the pursuit of the overarching mission of the club.

8.2 Contribution and implications

The overall contribution of the dissertation is threefold. First, from a theoretical point of view, this dissertation examines the financing of nonprofit sports clubs by investigating the central revenue categories of clubs, the clubs' overall financial situation and in both cases related determinants on the basis of different theoretical approaches from the nonprofit economics and finance literature. This approach responds to Vilain's (2006) call to examine nonprofit finance in different forms of organisations and areas. The five studies make use of different theoretical approaches and frameworks from the areas of nonprofit economics (public goods theory, contract failure theory, theory of club goods), sports policy (funding principles), financial management (portfolio theory), and organisational capacity. As an overarching framework, the benefits theory of nonprofit finance, which essentially states that the organisation's sources of revenue should ideally correspond with the nature of benefits the providers of the resources receive (Young, 2007a), is applied to the context of a certain type of nonprofit organisation, namely nonprofit sports clubs. Thereby, the dissertation can be regarded as a "contribution *of* theory" (Doherty, 2013, p. 8) in the field of nonprofit finance in general and in the area of nonprofit sports clubs finance in particular.

Second, each of the five quantitative studies of this cumulative dissertation makes use of unique data sets of a nonprofit sports club panel from Germany, the Sport Development Report. Different statistical analyses are applied in the papers (e.g., Heckman selection models, ordinary least squares, multinomial logit, fractional logistic regression, seemingly unrelated regression) to investigate the research questions. Thereby, this dissertation contributes empirical evidence to the sport management and nonprofit finance literature.

Third, from a practical point of view, the results of the dissertation can support sports clubs in optimising their income sources and establishing financial management practices. In doing so, it is important to notice that the sports clubs' landscape is diverse. Despite the common constitutive features (Horch, 1992), sports clubs are characterised by great structural differences and a high degree of diversity, e.g., re-

garding club size, sports offers, philosophy and location (Nagel & Lamprecht, 2022). Consequently, the revenue composition of sports clubs can differ between clubs. As Young (2007a, p. 372) sums it up, there is no "one size fits all" approach to financing NPOs. However, the results of this dissertation offer insights into how the three main income categories can be optimised, taking into account potential interactions and financial problems. Based on their mission and main goals, sports clubs are advised to constantly review their income portfolio to make sure not to miss out on potential revenue sources. Particularly in times of scarce financial resources, taking such an approach might make an important difference to remain financially viable (Young, 2017). If, e.g., a club is focused on competitive sport but also on certain population groups like people with a disability or females, the results of this dissertation suggest that the club should apply for different types of public subsidies. Moreover, temporary funding opportunities (e.g., various programmes during the pandemic) could be beneficial to clubs. Another funding option to further optimise donations is active fundraising by addressing population groups that particularly benefit from the club offers or aim to support the socially valuable work of clubs. Active fundraising is so far relatively little used in sports clubs.

In addition to sports clubs, sports federations and confederations can use the findings to develop support programmes for sports clubs in the field of financial management. Finally, the findings provide valuable insights for sports policymakers as they underpin, e.g., the importance of a necessary de-bureaucratisation of public funding mechanisms.

8.3 Limitations and future research

Although this dissertation provides a deep insight into the core revenue sources of nonprofit sports clubs and the overall financial situation, there is still room for future research. This dissertation focuses on income from the non-material area of clubs, neglecting further income sources, such as commercial business income, which makes up about 13% of the income portfolio of sports clubs. In this regard, Misener and Doherty (2014) claim that nonprofit sports organisations are recommended to develop their financial capacity by seeking revenue beyond traditional income sources. Some researchers propose that due to the ongoing commercialisation of the nonprofit sector (Enjolras, 2002; Weisbrod, 1998), generating commercial income might become more important for nonprofits. In the context of nonprofit sports clubs, research has looked at interaction effects between commercial income and revenue from other sources (Wicker et al., 2012). However, research on determinants of this income source is scarce. In this respect, further studies should take a closer look at factors related to the generation of commercial and sponsorship income. In doing so, aspects of the fit between the clubs' philosophy and mission and the commercial

activities should be considered. Moreover, for nonprofit sports clubs in Germany, it needs to be considered that generating income stemming from commercial business operations underlies taxation (in contrast to income from the non-material area) and thereby increases expenses. Thus, overall effects of generating commercial income on the clubs' financial situation should also be investigated.

Another research opportunity is to investigate the so-far underdeveloped area of active fundraising in the area of nonprofit sports clubs. Recent findings for sports clubs in Germany show that new ways of developing financial sources, for example, through active fundraising, are only used by a minority of sports clubs. In contrast, about 77% of clubs stated that such measures were not planned, not even during the COVID-19 pandemic (Breuer et al., 2021). Thus, it would be interesting to investigate which factors help or hinder the use of active fundraising in sports clubs. Such research could offer valuable insights into how sports clubs can optimise revenue generation from donations by applying different types of fundraising techniques (Pajas & Vilain, 2004).

Finally, it should be noted that the research context of the underlying dissertation is Germany. Although there are similarities to the structures of the sports systems and the funding sources in other countries, there are also differences (cf., Hallmann & Petry, 2013; Scheerder et al., 2017). In this respect, it would be interesting to empirically test the framework developed here for financing nonprofit sports clubs in other country contexts.

8.4 References

Bowman, H. W. (2017). Toward a Theory of Membership Association Finance. *Nonprofit and Voluntary Sector Quarterly, 46*(4), 772-793. https://doi.org/10.1177/0899764016685860

Breuer, C., Feiler, S., & Rossi, L. (2021). *Impact of the COVID-19 pandemic on sports clubs in Germany. Results of the COVID-19 supplementary survey as part of the 8th wave of the Sport Development Report.* Bundesinstitut für Sportwissenschaft.

Doherty, A. (2013). Investing in sport management: The value of good theory. *Sport Management Review, 16*(1), 5-11. https://doi.org/10.1016/j.smr.2011.12.006

Enjolras, B. (2002). The commercialization of voluntary sport organizations in Norway. *Nonprofit and Voluntary Sector Quarterly, 31*(3), 352-376. https://doi.org/10.1177/0899764002313003

Feiler, S., & Breuer, C. (2021). Perceived Threats through COVID-19 and the Role of Organizational Capacity: Findings from Non-Profit Sports Clubs. *Sustainability, 13*(12), 6937. https://www.mdpi.com/2071-1050/13/12/6937

Feiler, S., Coates, D., Wicker, P., & Breuer, C. (2023). The perceived financial situation of nonprofit sports clubs explained by objective financial measures. *Sport Management Review, 26*(4), 607-627. https://doi.org/10.1080/14413523.2022.2152936

Feiler, S., Wicker, P., & Breuer, C. (2015). How to raise voluntary giving for nonprofit sports clubs: An analysis of factors influencing donations. *Voluntas: International Journal of Voluntary and Nonprofit Organizations, 26*(4), 1219-1239. https://doi.org/10.1007/s11266-014-9489-3

Feiler, S., Wicker, P., & Breuer, C. (2019a). Nonprofit Pricing: Determinants of Membership Fee Levels in Nonprofit Sports Clubs in Germany. *International Journal of Sport Finance, 14*(4), 262-277. https://doi.org/10.32731/IJSF/144.112019.06

Feiler, S., Wicker, P., & Breuer, C. (2019b). Public subsidies for sports clubs in Germany: funding regulations vs. empirical evidence. *European Sport Management Quarterly, 19*(5), 562-582. https://doi.org/10.1080/16184742.2018.1541915

Hallmann, K., & Petry, K. (2013). *Comparative Sport Development. Systems, Participation and Public Policy.* Springer.

Heinemann, K., & Horch, H.-D. (1981). Soziologie der Sportorganisation. *Sportwissenschaft 11*(2), 123-150.

Heinemann, K., & Horch, H.-D. (1991). *Elemente einer Finanzsoziologie freiwilliger Vereinigungen.* Enke.

Horch, H.-D. (1992). *Geld, Macht und Engagement in freiwilligen Vereinigungen. Grundlage einer Wirtschaftssoziologie von Non-Profit-Organisationen.* Duncker & Humblot.

Horch, H.-D. (1994). On the socio-economics of voluntary associations. *Voluntas: International Journal of Voluntary and Nonprofit Organizations, 5*(2), 219-230.

Misener, K., & Doherty, A. (2014). In support of sport: Examining the relationship between community sport organizations and sponsors. *Sport Management Review, 17*(4), 493-506. https://doi.org/10.1016/j.smr.2013.12.002

Nagel, S., & Lamprecht, M. (2022). Sport im Verein. In M. Lamprecht & S. Nagel (Eds.), *Sportsoziologie. Einführung* (pp. 143-156). Nomos Verlagsgesellschaft.

Pajas, P., & Vilain, M. (2004). Finance of Nonprofit Organizations. In A. Zimmer & E. Priller (Eds.), *Future of Civil Society. Making Central European Nonprofit-Organizations Work* (pp. 340-366). Springer Fachmedien Wiesbaden.

Scheerder, J., Willem, A., & Claes, E. (2017). *Sport policy systems and sport federations. A cross-national perspective.* Palgrave Macmillan.

Swierzy, P., Wicker, P., & Breuer, C. (2018). Willingness-to-Pay for Memberships in Nonprofit Sports Clubs: The Role of Organizational Capacity. *International Journal of Sport Finance, 13*(3), 261-278.

Weisbrod, B. A. (1998). The nonprofit mission and its financing: growing links between nonprofits and the rest of the economy. In B. A. Weisbrod (Ed.), *To profit or not to profit. The commercial transformation of the nonprofit sector* (pp. 1-22). Cambridge University Press.

Wicker, P., Breuer, C., & Hennigs, B. (2012). Understanding the interactions among revenue categories using elasticity measures - Evidence from a longitudinal sample of non-profit sport clubs in Germany. *Sport Management Review, 15*(3), 318-329. https://doi.org/10.1016/j.smr.2011.12.004

Young, D. R. (2007a). Toward a normative theory of nonprofit finance. In D. R. Young (Ed.), *Financing nonprofits. Putting theory into practice* (pp. 339-372). AltaMira Press.

Young, D. R. (2007b). Why study nonprofit finance? In D. R. Young (Ed.), *Financing nonprofits. Putting theory into practice* (pp. 3-20). AltaMira Press.

Young, D. R. (2017). *Financing nonprofits and other social enterprises. A benefits approach.* Edward Elgar Publishing Limited.

Abstract

Nonprofit sports clubs build the basis of sports systems in many European and overseas countries, providing a main pillar of mass sports, competitive sports, and health sports offers. To fulfil their mission and goals, nonprofit sports clubs must carefully manage their financial resources to avoid potential financial problems. Despite the importance of nonprofit sports clubs as relevant actors for the welfare of society, research on the finances of nonprofit sports clubs is scarce.

As membership associations, sports clubs rely to a large extent on membership fees. These fees are complemented by further revenue from donations and public subsidies. Together, these three income sources are summed up under the so-called non-material area and can be regarded as the core financial resources of nonprofit sports clubs. To address the research gap regarding the finances of nonprofit sports clubs, the purpose of this dissertation is to examine, first, which factors are related to the reception and amount of nonprofit sports clubs' key financial revenue sources, and second, how perceived financial problems can be explained based on objective financial measures and in times of crisis.

The two overarching research questions are investigated in five quantitative studies, making use of data from a longitudinal study among nonprofit sports clubs in Germany, the "Sport Development Report". The studies use different theoretical approaches from nonprofit economics, financial management, and organisational capacity, which can be summed up under the overarching framework of benefits theory for nonprofit finance adapted to the context of nonprofit sports clubs.

The results suggest that various different factors are relevant to the three core revenue sources and perceived financial problems. Some of these factors, e.g., competitive sport, youth promotion, and sports facilities, are relevant elements for all three income sources, whereas other factors, e.g., a commercial orientation, is mainly negatively related to donations. Additionally, it needs to be considered in the financial management of clubs that some factors are related to the income sources and simultaneously to perceived financial problems, e.g., revenue diversification.

The dissertation contributes theoretically and empirically to the nonprofit finance literature of a specific type of nonprofit organisations, namely nonprofit sports clubs. Furthermore, the dissertation has practical relevance for the management of nonprofit sports clubs as the findings help sports clubs manage and optimise their financial resources. Moreover, the dissertation provides valuable implications for stakeholders with a collective interest in sports clubs' financial health and effective sport programme delivery, such as sports associations, federations, and sports policymakers.

Kurzfassung

Gemeinnützige Sportvereine bilden die Basis der Sportsysteme in vielen europäischen Ländern wie auch weltweit und stellen eine wichtige Säule des Breiten-, Leistungs- und Gesundheitssports dar. Um ihre Mission und Ziele erfüllen zu können, müssen die Sportvereine ihre finanziellen Ressourcen sorgfältig managen, um mögliche finanzielle Probleme zu vermeiden. Trotz ihrer Bedeutung als relevante Akteure für die Gesellschaft und das Gemeinwohl, fehlt es an Forschung zur Finanzierung von gemeinnützigen Sportvereinen.

Als Mitgliedsorganisationen sind Sportvereine in hohem Maße auf Mitgliedsbeiträge angewiesen. Ergänzt werden diese Beiträge durch weitere Einnahmequellen wie Spenden und öffentliche Zuschüsse. Diese drei Einnahmequellen werden unter dem ideellen Bereich zusammengefasst und können als die zentralen finanziellen Ressourcen von Sportvereinen angesehen werden. Um die Forschungslücke bezüglich der Finanzen von gemeinnützigen Sportvereinen zu schließen, wird in dieser Dissertation erstens untersucht, welche Faktoren mit dem Erhalt und der Höhe der wichtigsten Einnahmequellen von Sportvereinen zusammenhängen, und zweitens, wie wahrgenommene finanzielle Probleme anhand objektiver finanzieller Kennzahlen und in Krisenzeiten erklärt werden können.

Die beiden übergeordneten Forschungsfragen werden in fünf quantitativen Studien untersucht. Hierbei wird auf Daten des „Sportentwicklungsberichts“ zurückgegriffen, einer längsschnittlich angelegten Studie zur Untersuchung von Sportvereinen in Deutschland. Die fünf Studien der Dissertation verwenden unterschiedliche theoretische Ansätze aus der Nonprofit-Ökonomie, dem Finanzmanagement und dem Konzept der organisationalen Kapazität. Diese Ansätze lassen sich unter dem übergreifenden Rahmen der Nutzentheorie für die Nonprofit-Finanzierung, angepasst auf den Sportvereinskontext, zusammenfassen.

Die Ergebnisse der Studien zeigen, dass verschiedene Faktoren für die drei Haupteinnahmequellen und die wahrgenommenen finanziellen Probleme von Bedeutung sind. Einige dieser Faktoren, z.B. Leistungssport, Jugendförderung und Sportstätten, sind für alle drei Einnahmequellen relevant, während andere Faktoren, beispielsweise eine kommerzielle Orientierung, hauptsächlich negativ mit dem Erhalt von Spenden verbunden sind. Darüber hinaus ist beim Management der Vereinsfinanzen zu berücksichtigen, dass einige Faktoren mit den Einnahmequellen und gleichzeitig mit finanziellen Problemen zusammenhängen, wie z.B. der Grad der Diversifizierung der Einnahmen.

Die vorliegende Dissertation leistet einen theoretischen und empirischen Beitrag zur Nonprofit-Finanzierungsliteratur für einen bestimmten Typ von Nonprofit-Organisationen, nämlich gemeinnützige Sportvereine. Darüber hinaus hat die Disserta-

tion praktische Relevanz für das Management von gemeinnützigen Sportvereinen. Die Ergebnisse können Sportvereinen helfen, ihre finanziellen Ressourcen zu managen und zu optimieren. Zudem liefert die Dissertation wertvolle Implikationen für verschiedene Gruppen, die ein kollektives Interesse an der finanziellen Stabilität von Sportvereinen und der effektiven Durchführung von Sportprogrammen haben, wie z.B. Sportverbände und Sportbünde sowie die Sportpolitik.