Sport Management Review xxx (2017) xxx–xxx

Contents lists available at ScienceDirect

Sport Management Review

journal homepage: www.elsevier.com/locate/smr

Full Length Article

The impact of organizational capacity on voluntary engagement in sports clubs: A multi-level analysis

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ARTICLE INFO

Article history:
Received 2 March 2017
Received in revised form 4 August 2017
Accepted 4 August 2017
Available online xxx

Keywords:
Multi-level model
Volunteer
Nonprofit sports organization
Football
Track and field

ABSTRACT

As volunteerism occurs in an organizational context, both individual factors and organizational characteristics affect (potential) volunteers in sports clubs. Whereas a number of researchers have studied individual-level determinants, knowledge on the role of organizational-level factors is limited. Based on the concept of organizational capacity, in the present study, the authors investigate whether and how human resources, financial, and structural capacities of sports clubs influence individual voluntary engagement. Using data from German football and track and field clubs ($n = 296$) and their members ($n = 1222$), the effects of organizational capacity on voluntary engagement within two subsamples, adult members and parents of underage members, are examined. The results of multi-level mixed effects regression analyses show that all capacity dimensions are significantly associated with voluntary engagement of both adult members and parents of underage members. A larger number of members and a greater share of volunteers reduce the amount of time a volunteer devotes to voluntary work; adult members are less likely to volunteer when their club has a balanced budget; and strategic planning increases the likelihood of individuals to volunteer informally. Overall, the results support the notion that the organizational context is more relevant to volunteering of adult members than individual characteristics and equally relevant to parents of underage members. Managerial implications to facilitate volunteering, such as shifting club goals towards youth development and sports for all provision, are discussed.

1. Introduction

Volunteers are the cornerstone for the functioning of several sports systems worldwide and a reason why nonprofit sports organizations operate cost-effectively (Andreff, 2006; Schlesinger, Klenk, & Nagel, 2015; Taylor, Panagouleas, & Nichols, 2012). However, sports clubs in numerous countries, such as Germany (e.g., Wicker & Breuer, 2013), Australia (Cuskelly & O'Brien, 2013; Cuskelly, 2004), Canada (Lasby & Sperling, 2007 Misener & Doherty, 2009), the United Kingdom (Burgham & Downward, 2005; SARC, 2013; Taylor, Barrett, & Nichols, 2009), Finland (Koski, 2012), and Switzerland (Lamprecht, Fischer, & Stamm, 2011; Schlesinger et al., 2015) have to cope with increasing difficulties in recruiting and retaining volunteers. In addition, researchers have reported trends of decreased voluntary engagement (Ringuet-Riot, Cuskelly, Auld, & Zakus, 2014).

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http://dx.doi.org/10.1016/j.smr.2017.08.001
1441-3523/

Since volunteers are indispensable for the functioning of sports clubs (Wicker & Hallmann, 2013) and typically only a small share of club members engages in voluntary work (Wicker & Breuer, 2013), a comprehensive understanding of factors determining individual voluntary engagement is needed. Existing studies aiming to identify relevant factors of an individual's decision to volunteer mostly examined the role of individual-level determinants, such as socio-demographic characteristics, experiences, and motivations (e.g., Burgham & Downward, 2005; Taylor et al., 2012; for an overview see Wicker, 2017).

However, from a theoretical perspective, individual behavior, including volunteering in a sports club, is not only affected by individual factors, but also by organizational characteristics (Penner, 2002; Schlesinger & Nagel, 2013; Studer & von Schnurbein, 2013; Wicker & Hallmann, 2013). According to ecological systems theory (Bronfenbrenner, 1979), individual behavior is a function of individual features and their social ecologies with which the individual is in constant interaction. The individual, who is at the center of the model, is nested within a specific social context consisting of different systems. The microsystem, which is closest to the individual, refers to groups and settings that surround individual behavior directly and immediately (e.g., sports clubs). Interaction between these systems emerges from individual experiences, interpersonal relations, and roles (Deal et al., 2017). Likewise, institutional theory argues that individual behavior is determined by these social institutions (Rotolo & Wilson, 2012). Researchers support the importance of organizational factors, such as organizational culture and human resources practices, to individual employee behavior (e.g., Liao & Chuang, 2004; Nohria, Groysberg, & Lee, 2008).

With regard to volunteerism as individual behavior, researchers outside the sport sector have shown that organizational factors affect an individual's decision to volunteer and the extent of volunteering (e.g., Hager & Brudney, 2011;Musick & Wilson, 2008). Based on a comprehensive literature review of organizational studies examining volunteerism, Studer and von Schnurbein (2013) summarized that practices and instruments of volunteer management, organizational attitudes towards volunteers, and organizational values, as well as structural factors, all influence volunteers and their behavior. Penner (2002) confirmed that individual voluntary engagement depends on an organization's reputation, its values, and personnel practices, and highlighted the importance of organizational factors for long-term volunteering in particular. Within sport, only a few researchers have examined the influence of organizational factors (i.e., characteristics of sports clubs) on individual voluntary engagement in clubs (Schlesinger & Nagel, 2013; Wicker, 2017), although the organizational context is a central characteristic of volunteerism (Penner, 2002). It is, therefore, critical for club management to understand the role of organizational capacity in voluntary engagement and, ultimately, the factors that enable these organizations to meet their objectives (Doherty, Misener, & Cuskelly, 2014).

The purpose of this study is to examine the impact of organizational factors on an individual's decision to volunteer and the extent of individual voluntary engagement. We distinguish between two groups of volunteers, adult members and parents of underage members, who have been selected based on two criteria. The first criterion is their relation to the organization, which is either internal (adult member volunteers) or likely external (parent volunteers) (Donnelly & Kidd, 2003; Nichols and Shepherd, 2006). The second criterion is their intended beneficiaries (Cnaan, Handy, & Wadsworth, 1996), who are either themselves (adult member volunteers) or their own children as relatives (parent volunteers). According to Cnaan et al. (1996), the latter form is more purist and determines more narrowly how individuals perceive what makes a volunteer. Given these differences, we examine whether and to what extent these two subgroups of volunteers are distinctively influenced by organizational factors.

The research context for this study is Germany, where sports clubs have reported serious problems regarding the recruitment and retention of volunteers (e.g., Wicker & Breuer, 2013). The main research question is: how does organizational capacity influence an individual's decision to volunteer and the amount of time devoted to voluntary engagement? Findings of this study enable sports club managers to identify dimensions where capacity building is needed to mitigate problems associated with volunteerism.

2. Theoretical framework and literature review

As the focus of this study lies on the identification of organizational-level factors impacting voluntary engagement, individual-level determinants, which have been widely studied in previous research, are not discussed in this section (for an overview see Wicker & Hallmann, 2013; Wicker, 2017; Wilson, 2012). Instead, we draw from Hall et al.'s (2003) conceptual model of organizational capacity of nonprofit and voluntary organizations. The center of this model is the capacity of an organization, which is influenced by environmental constraints and facilitators, access to resources, and historical factors. Human resources capacity is at the core of organizational capacity and shapes the other two capacity dimensions – financial and structural capacity. Organizational capacity also determines an organization's outputs or outcomes, including any goods produced or services provided, populations served, policies influenced, or changes in behavior elicited (Hall et al., 2003). A comprehensive needs assessment is the foundation for developing and building organizational capacity (Millar & Doherty, 2016).

Past scholars have already drawn from the model of organizational capacity in their research on volunteers in sports clubs (Doherty et al., 2014; Millar & Doherty, 2016; Misener & Doherty, 2009, 2013; Sharpe, 2006; Wicker & Breuer, 2011, 2013). The selection of factors within each capacity dimension is based on existing conceptual (Wicker & Hallmann, 2013) and empirical research (Breuer, 2011, 2013; Breuer, 2011, 2013). In the present study, we explain their relevance for volunteering in

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different subgroups (i.e., adult members and parents of underage members) and discuss how and under what circumstances they may influence individuals' decision to volunteer and their time commitments.

Organizational capacity is the ability of organizations to fulfill their missions and mandates (Hall et al., 2003). For sports clubs, this is to serve the needs and interests of their members, such as the provision of opportunities to practice sport for the population, to offer competitive sports opportunities, or to increase sociability (Nagel, 2008). The conceptual model by Hall et al. (2003) is multi-dimensional and distinguishes between human resources, financial, and structural capacities which are discussed below. Since only a few sport management scholars have considered the organizational context, this discussion is enriched by studies from the field of general volunteering.

The first dimension reflects the human resources capacity and refers to "the ability to deploy human capital [. . .] within the organization" (Hall et al., 2003, p. 5). The dimension includes volunteers and paid staff, their competencies, knowledge, attitudes, motivation and behavior (Doherty et al., 2014; Misener & Doherty, 2009). Volunteers can be separated into formal volunteers holding an official position at the club and informal volunteers engaging sporadically (e.g., by supporting the organization of club festivities) without holding an official position (Wicker & Breuer, 2014). The more volunteers are engaged in a club, the less visible becomes the individual contribution of a volunteer (Wicker & Hallmann, 2013). Also, in case of a stronger dependence on volunteers compared to paid staff, organizations obtain higher net benefits from volunteers (Hager & Brudney, 2004). Therefore, we suggest that the higher the share of volunteers, the lower the level of engagement per volunteer. Specifically, parents of underage members, who are external to the organization and driven by the incentive to volunteer for the benefit of their children, and not for their own benefits, are expected to be less likely to volunteer than adult members in the case of a higher share of volunteers as they might assume that there are enough volunteers to perform the work.

Furthermore, potential conflicts between volunteers and paid staff, resulting from different values and motivations to work (Wicker & Hallmann, 2013), could lead to individuals being less likely to volunteer. Paid employees potentially suppress the opportunities for volunteers, and as more paid staff is hired, volunteers are pushed from the core of decision-making to its edges. As a result, volunteers are disempowered, as they need to implement plans developed by paid workers who take over responsibilities previously hold by volunteers (Cuskelly, 2004). Volunteers perceive this as inappropriate managerial treatment and feel being managed rather than being in charge of managerial issues, which reduces their intention to continue volunteering (Kim, Chelladurai, & Trail, 2007). Volunteers are sparsely interested in giving up control concerning organizational issues when professionals are hired (Thibault, Slack, & Hinings, 1991). Empirically, Schlesinger and Nagel (2013) found no significant impact of the presence of paid staff on the decision to volunteer in Swiss sports clubs. However, they neither reported what proportion of Swiss sports clubs employed paid staff nor discussed this insignificant effect. Moreover, they did not distinguish between different forms of volunteering. In light of potential conflicts, we nevertheless assume that the presence of paid staff has a negative impact on voluntary engagement. The influence is expected to be stronger for adult members, who are internal to the club and directly affected by decisions from paid staff, than parents of underage members.

Voluntary engagement may also be affected by club size in terms of the number of members, which could have a twofold impact on voluntary engagement though. On the one hand, as Machin and Paine (2008) found that volunteer management is better resourced, structured, and formalized in larger clubs, individuals may be more likely to volunteer in these clubs. In addition, perceived social appreciation for voluntary engagement by other members increases with the number of members (Erlinghagen, 2003) and social cohesion in volunteer sport executive committees is perceived to be stronger in larger groups (Doherty & Carron, 2003). On the other hand, there is a decline in the community character and growth in anonymity in larger clubs that lead to a reduced social obligation to volunteer and encourages free-riders (Heckathorn, 1989). Also, heterogeneous and potential conflicting interests in larger clubs tend to decrease the satisfaction amongst members and volunteers (Heinemann & Horch, 1988; Wicker & Breuer, 2013). Even though a relationship between club size and volunteering seems theoretically plausible, Schlesinger and Nagel (2013) did not observe that the number of members influenced the decision to volunteer in Swiss sports clubs. The authors concluded that their organizational-level sample might have been too homogenous in size to detect any differences which justifies further empirical investigation. Swiss sports clubs have fewer members than German sports clubs, and there is less variation in club size (Wicker, Breuer, Lamprecht, & Fischer, 2014). Hence, greater variation in club size might unravel the role of the number of members in individual volunteering decisions.

Financial capacity refers to "the ability to develop and deploy financial capital" (Hall et al., 2003, p. 5), such as revenues, expenses, assets, and liabilities. Among others, this capacity depends on the degree of revenue diversification (Wicker & Breuer, 2013) and the ability to generate various sources of revenues. In nonprofit sports clubs, volunteers are usually responsible for generating sufficient funds. Prior researchers argue that the financial situation of sports clubs and their problems regarding volunteers are interrelated. On the one hand, Wicker et al. (2014) found that problems regarding the recruitment and retention of volunteers are higher in clubs with large revenues. Accordingly, severe financial problems or an unbalanced budget could increase voluntary engagement as individuals fear to lose the benefits associated with their club membership. Further, people might feel socially responsible for other members, prompting them to volunteer in order to help ensure the future existence of the club. On the other hand, Coates, Wicker, Feiler, and Breuer (2014) argued that clubs with a better financial situation experience smaller problems with volunteers. Since financial resources are needed to provide sports programs or to improve the quality of these (Wicker & Breuer, 2013), affected volunteers, for instance coaches, could be annoyed by financial shortages of the club, as funds for the provision of their programs could be insufficient. Also, as

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financial resources influence the action space for coordinating volunteers (Studer & von Schnurbein, 2013), for example by restricting the funds available for the employment of a volunteer coordinator, stable revenues and expenses, as well as adequate financial management (Doherty et al., 2014), likely have a positive influence on individual voluntary engagement because volunteers appreciate a structured volunteer management (Østerlund, 2013). Since lacking adequate volunteer funds increases volunteer recruitment problems (Hager & Brudney, 2011), resulting financial cutbacks on activities performed by volunteers likely influence adult member volunteers to a greater extent than parent volunteers because the former do not only provide or produce club programs or activities as volunteers, but also participate in them as club members (Dawson & Downward, 2013).

Structural capacity is "the ability to deploy the non-financial capital that remains when the people from an organization have gone home" (Hall et al., 2003, p. 5). This dimension is sub-divided into three sub-dimensions: relationship and network capacity, infrastructure and process capacity, and planning and development capacity. Structural characteristics of an organization, such as goals, task structure, and level of bureaucracy, restrict the margin of action of volunteers (Studer & von Schnurbein, 2013) and may, therefore, have an impact on individual voluntary engagement.

The sub-dimension relationship and network capacity includes an organization's network of partners. Inter-organizational relationships support clubs to acquire resources that are needed (Misener & Doherty, 2013). For example, sports clubs establish relations to local authorities and schools if they are in need for adequate facilities (Allison, 2001). The effect of co-operations on individual voluntary engagement has not yet been studied. On the one hand, relations to other organizations could positively impact volunteering, as individuals might expect to benefit from positive spillover effects, such as enhanced relations to decision-makers of partner organizations. According to Harvey, Lévesque, and Donnelly (2007), volunteering can lead to the qualitative and quantitative development of social networks. One could assume that relationships are not only vital to sports clubs, but also to volunteers in particular, as resources, knowledge, and social benefits are acquired. On the other hand, inter-organizational relationships may negatively influence voluntary engagement, as the workload of volunteers in clubs with relatively more co-operations might be higher due to an extended network management. Misener and Doherty (2009) identified the time required to form and maintain the relationships as a major challenge on this capacity dimension.

The infrastructure and process capacity dimension reflects the physical infrastructure, but also organizational processes and culture (Hall et al., 2003). First, as facilities are required for providing most sports programs (Wicker & Breuer, 2013), volunteers are expected to be negatively affected if facilities are not available or in inappropriate condition. Problems with the availability or condition of the infrastructure could lead to individuals being enervated by this (Misener & Doherty, 2009). Hence, the attractiveness of voluntary work likely depends on the quality and quantity of the infrastructure available to perform voluntary tasks.

Second, organizational processes might differ from sports clubs offering one sport to those offering more than one type of sport, because in multi-sports clubs resources need to be divided amongst divisions. This possibly leads to perceived injustice of resource distribution amongst volunteers. Organizational processes are characterized by the level of formalization and communication (Doherty et al., 2014), as well as bureaucracy, flexibility, hierarchy and specialization (Studer & von Schnurbein, 2013). For instance, higher levels of bureaucracy and specialization result in an alienation of volunteers from their club and, consequently, negatively impact their willingness to volunteer (Musick & Wilson, 2008). As these factors might differ in sports clubs depending on whether it is a single- or multi-sports club, the organizational form could affect voluntary engagement. This impact likely varies between parents of underage members and adult members, as possible resource injustice and organizational processes more directly affect the latter. For example, if resources are cut on sporting programs in which adult member volunteers participate themselves, they are affected in their role as members as well. Schlesinger and Nagel (2013) found the number of divisions had no significant impact on the decision to volunteer amongst sports club members in Switzerland. However, these findings could be due to the fact that Swiss sports clubs generally offer fewer sports compared to German sports clubs (Wicker et al., 2014).

Third, the attractiveness of volunteering depends on the aims of an organization (Schlesinger & Nagel, 2013), which in turn determine culture (Studer & von Schnurbein, 2013). The majority of studies on organizational culture in sport define it as a "pattern of shared basic assumptions" (Schein, 1985, p. 19) that its members consider to be useful to solve organizational problems (Maitland, Hills, & Rhind, 2015). Alternatively, Doherty and Chelladurai (1999) defined culture as "an underlying system of shared values, beliefs, and assumptions about how things are done in the organization [which] are formed as a result of members' collective experiences in dealing with the universal organizational problems" (p. 286). Besides shared attitudes, values, and practices, the culture develops from a set of shared goals that characterize a club (Sport Scotland, 2014). Club culture can influence reported problems regarding the recruitment and retention of volunteers (Coates et al., 2014), suggesting that organizational culture and voluntary engagement are related. This assumption is supported by previous research. For instance, growth-oriented club goals have a negative effect on the decision to volunteer (Schlesinger & Nagel, 2013). Clubs that set a higher value on conviviality report relatively fewer problems concerning the recruitment and retention of volunteers (Breuer, 2013, 2014; Breuer, 2013, 2014). Since volunteers expect to benefit from their engagement in social terms (Wilson, 2012), conviviality potentially influences the decision to volunteer. Also, an integrative club culture or the aim to be sustainable, for example by focusing on the provision of programs for youth members, may potentially impact volunteers.

The planning and development capacity represents an organization's "ability to develop and draw on organizational strategic plans" (Hall et al., 2003, p. 6). Most nonprofit sports clubs are informal (Sharpe, 2006) and focus on day-to-day

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operations (Allison, 2001; Doherty et al., 2014). To ensure that club objectives are met, to minimize uncertainty, to promote stability and future growth, and to meet expectations of stakeholders (e.g., members, parents, sport governing bodies), pursuing a strategic plan is useful (Misener & Doherty, 2009). Clubs with a strategic management plan face fewer problems regarding the recruitment and retention of volunteers (Breuer, 2013, 2014; Breuer, 2013, 2014). Hence, it is conceivable that volunteers are more likely to engage in clubs with a focused strategic alignment and a plan for future development. Moreover, task structure, autonomy, and feedback mechanisms positively influence volunteer satisfaction, commitment, and intention to remain (Studer & von Schnurbein, 2013). Also, further outcomes of strategic planning, such as recognition activities, professional volunteer development, or volunteer screening are positively associated with the retention of volunteers (Hager & Brudney, 2004). Consequently, we expect that voluntary engagement is more likely in strategically led clubs.

Collectively, our review highlights valuable insights and research gaps in the field. First, as individuals volunteer in an organizational context, the application of multi-level modeling including both the individual- and the organizational-level is necessary (Wicker & Hallmann, 2013). Schlesinger and Nagel (2013) employed a multi-level approach examining 45 Swiss sports clubs. However, they added organizational factors to the model with little theoretical reasoning. Consequently, only a small share of the organizational-level variance was explained. Second, scholars have generally focused on one capacity dimension (Misener & Doherty, 2013) or were qualitative in nature (Doherty et al., 2014; Misener & Doherty, 2009). This scholarship is noteworthy, as the researchers explored fundamental relations between organizational characteristics and individual behavior in sports clubs. However, by nature, they investigated rather small samples of club representatives. Furthermore, previous scholars examining organizational characteristics did not differentiate between the decision to volunteer and the extent of volunteering, as well as between formal and informal volunteerism. Moreover, distinctions between adult members and parents of underage members were not made. In the present study, we address these shortcomings.

3. Method

3.1. Research context, sample, and procedure

In order to examine the influence of a sports club's organizational capacity on individual voluntary engagement, both data about clubs and individuals are required. In the context of a research project funded by the West-German Football and Track and Field Association (WFLV), primary data were collected via online surveys. This study was formally approved by the university's ethics committee (approval number: 037/2016). The geographical area of the WFLV mainly comprises the federal state of North-Rhine Westphalia and is home to 5260 sports clubs offering football and/or track and field.

The e-mail addresses of 4788 clubs were made available by the WFLV. After excluding duplicate as well as erroneous addresses, we invited 3569 clubs to the online survey, which we created via the online software SoSci Survey. The survey period was from March 15, 2016 to April 29, 2016. At the end of the survey period, 871 clubs took part in the study, yielding a response rate of 24.4%. Finally, 615 clubs remained in the sample after excluding incomplete cases based on listwise deletion, resulting in a completed response rate of 17.2%. Comparisons with response rates of other sports club surveys, ranging from 14% in Flanders (Scheerder & Vos, 2010) to 23.5% in Finland (Koski, 2012) or 31% in North-Rhine Westphalia (Breuer & Feiler, 2015), reveal that the present response rate lies in the range of previous sports club surveys.

To mitigate nonresponse bias, which is present when the answers of respondents differ from those that nonrespondents would have given, reminding nonrespondents to participate in the survey is a common procedure (Hansen, Fonager, Freund, & Lous, 2014). Therefore, two e-mail reminders accompanied by an official motivation letter from the managing director of the WFLV were sent in a time interval of approximately two weeks and significantly raised the response rate. To assess the extent of nonresponse bias, wave analyses were executed to investigate statistical differences between first wave respondents, who are considered actual respondents, and second and third wave respondents, who are treated as quasi nonrespondents (Rogelberg & Luong, 1998; Rogelberg & Stanton, 2007). Analyses of variances for the clubs of the adult member sample show that first wave respondents only differ significantly from clubs responding in later waves with regard to 1 of 14 organizational-level variables (*PROB_FIN*). Likewise, first wave clubs of the parent sample only differ significantly from later wave clubs with regard to 1 of 14 organizational-level variables (*MULTISPORT*).

In order to gather individual data on sports club members, the clubs were asked to forward another online survey invitation to their members and to the parents of underage members. Three e-mail reminders, accompanied by a motivation letter of the managing director of the WFLV, were sent out and increased the response rate. After an eight week period from March 15, 2016 to May 11, 2016 in which these questionnaires were available online, a total of 3883 individuals clicked on the link. After cleaning the data by excluding cases with incomplete (i.e., at least one response of relevance for final analyses missing) or inconsistent responses (e.g., respondent's reported age lower than his/her number of years practicing the sport or holding a club membership), 2102 cases (54.1%) remained in the individual-level sample. Since information on clubs *and* their members is needed, only those individuals whose clubs have participated in the club survey could be used for the empirical analyses. Altogether, 637 adult members belonging to 229 clubs as well as 585 parents of underage members coming from 166 clubs could be included in the final analyses. Response rates for the individual-level samples could not be calculated due to the sampling procedure. Again, wave analysis (Rogelberg & Luong, 1998; Rogelberg & Stanton, 2007) were conducted to compare individuals who responded before the first reminder was sent (first wave respondents) with those

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responding after the second and third reminder. Analyses of variance for the 15 individual-level variables included in the adult member analyses show statistically significant differences between first and later wave respondents for only one variable (*FRIENDS*). Within the parent sample, significant differences are found for two individual-level variables (*VOL_FORMAL, SPORT*). Altogether, these wave analyses suggest that individual- and organizational-level nonresponse affects sample structures only to a small extent.

3.2. Variables

Table 1 gives an overview of the variables used in this study. An individual's voluntary engagement in a sports club is measured with four variables. These are measures of formal volunteering indicated by holding an official position at the club (*VOL_FORMAL*), informal volunteering characterized by sporadic engagement without holding an official position at the club (*VOL_INFORMAL*), volunteering in general including both formal and informal engagement (*VOL*), as well as the extent of volunteering measured by the number of hours spent on voluntary work per month (*VOL_HOURS*). We extend previous research in which only one measure for voluntary engagement was used (Schlesinger & Nagel, 2013).

We used a set of variables to capture each capacity dimension. First, human resources capacity was measured by the number of club members (*CLUBSIZE*), the number of paid staff (*STAFF*), and the share of members who work voluntarily for the club (*VOLRATIO*). Existing research used club size as proxy for human capital that can be exploited in a sports club (Schlesinger & Nagel, 2013). Regarding paid staff, metric measures contain more information compared to dummy variables,

Table 1
Overview of variables.

Variable	Description	Scale
Dependent variables		
VOL	Member/parent of underage member volunteers (incl. formal and informal) in club (1 = yes)	dummy
VOL_FORMAL	Member/parent of underage member volunteers (only formal) in club (1 = yes)	dummy
VOL_INFORMAL	Member/parent of underage member volunteers (only informal) in club (1 = yes)	dummy
VOL_HOURS	Number of hours the member/parent of underage member engages as volunteer per month (incl. formal and informal)	metric
Independent variables		
Organizational level		
Human resources capacity		
CLUBSIZE	Number of members	metric
STAFF	Number of paid staff	metric
VOLRATIO	Share of members who volunteer	metric
Financial capacity		
BREAKEVEN	The revenues were equal to or higher than the expenses in 2015 (1 = yes)	dummy
PROB_FIN	Financial situation (1 = no problem; 5 = very big problem)	ordinal
Relationship and network capacity		
COOP	Number of co-operations with other organizations	metric
Infrastructure and process capacity		
MULTISPORT	More than one sport is offered (1 = yes)	dummy
CULTURE_ALL	The club is a sports for all club (1 = strongly disagree; 5 = strongly agree)	ordinal
CULTURE_YOUTH	The club strongly engages in youth work (1 = strongly disagree; 5 = strongly agree)	ordinal
CULTURE_TRAD	The club should stay the way it is (1 = strongly disagree; 5 = strongly agree)	ordinal
CULTURE_CONV	Number of social events held in 2015	metric
AVAIL_FAC	Availability of sporting facilities (1 = no problem; 5 = very big problem)	ordinal
COND_FAC	Condition of sporting facilities (1 = no problem; 5 = very big problem)	ordinal
Planning and development capacity		
STRATEGY	The club has a strategic policy (1 = strongly disagree; 5 = strongly agree)	ordinal
Individual level		
AGE	Age (in years)	metric
AGESQ	Age (in years) squared	metric
MALE	Gender (1 = male)	dummy
INCOME	Net monthly household income (1 = up to 500€; 11 = more than 5000€)	ordinal
WORKHOURS	Weekly number of hours spent on work, school, or university	metric
EDUCATION	Highest academic degree (1 = no school degree; 7 = university degree)	ordinal
FAMILY	Number of family members in club	metric
CHILD	Own children in club (1 = yes)	dummy
FRIENDS	Number of friends in club	metric
EVENTS	Number of social club events attended in 2015	metric
MEMBYEARS	Years of club membership	metric
UTILIZATION	Number of days per month in which facilities/offers of club are used	metric
SPORT	Three variables reflecting whether the member performs (1) football (reference category), (2) track and field, or (3) both, football and track and field in the club (1 = yes)	dummy
COMPETITION	Member participates in competitions (1 = yes)	dummy

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which were used by Wicker and Breuer (2014). Compared to the absolute number, the share of volunteers is assumed to better capture the influence of organizational capacity on volunteering as it is set in relation to club size.

As measures of a club's financial capacity, achieving a balanced budget in the most recent calendar year (*BREAKEVEN*) and a club representatives' assessment of the severity of financial problems (*PROB_FIN*) were used. Whereas *BREAKEVEN* expresses an objective assessment of the financial situation, *PROB_FIN* is a measure for the subjective seriousness of the problem. It is possible that the club has achieved a balanced budget in the prior calendar year, but at the same time, financial problems are perceived as serious because the existing revenues are not considered sufficient to finance the club's programs.

Relationship and network capacity was represented by the number of co-operations with other organizations (*COOP*), similar to Wicker and Breuer (2014). This measure quantifies the number of inter-organizational contacts a volunteer potentially has with stakeholders of the club.

Regarding the infrastructure and process capacity, a dummy variable indicating whether a club offers multiple sports (*MULTISPORT*) was included. Thereby, this measure differentiates between the two basic organizational forms sports clubs in Germany possibly take on. Furthermore, four items reflecting different aspects of club culture are included on the infrastructure and process capacity dimension. Since culture becomes apparent in organizational goals (Studer & von Schnurbein, 2013), four distinct club goals capture culture. These are whether the club sees itself as sports for all club (*CULTURE_ALL*), its engagement in youth work (*CULTURE_YOUTH*), its intention to stay the way it is (*CULTURE_TRAD*), and conviviality in terms of the number of social events held in the most recent calendar year 2015 (*CULTURE_CONV*). As clubs can have multiple goals, which is the case for German sports clubs (Nagel, 2008; Wicker & Breuer, 2011), the importance of the goals was measured on a 5-point Likert scale except for the conviviality measure. For the infrastructure and process capacity dimension, two additional measures expressing the perceived severity of problems regarding the availability (*AVAIL_FAC*) and condition of sporting facilities (*COND_FAC*) used by the club were included. As infrastructural problems are complex, they cannot be sufficiently quantified by simply asking whether there are problems or not. Instead, the problems can take on different levels of severity and therefore, club representatives were asked to evaluate the severity of both problems on a 5-point Likert scale. This measure has been used in previous research (e.g., Wicker & Breuer, 2014).

With the intention to reflect the planning and development capacity, whether a club has a strategic policy (*STRATEGY*) was taken into consideration – similar to previous research (Breuer, 2013, 2014; Breuer, 2013, 2014). As vigor and emphasis given to forming and following a strategic policy also vary amongst sports clubs, differences in the extent of managing a club strategically were measured on 5-point Likert scale as well.

Since voluntary engagement is also affected by individual-level determinants, we included several individual-level controls, namely demographic indicators, such as age and gender (e.g., Rotolo & Wilson, 2012; Taylor et al., 2012); economic indicators, like household income and employment status (Burgham & Downward, 2005), as well as education level (e.g., Taylor et al., 2012); social indicators (e.g., Schlesinger & Nagel, 2013; Wicker & Breuer, 2014); and sport- and membership-specific characteristics (e.g., Nichols & Shepherd, 2006). Regarding the subsample including parents of underage members, all individual-level variables refer to the children, not to the parental authority.

3.3. Statistical analysis

Sports club members are nested within sports clubs. Concerning the empirical analyses, this hierarchical data structure has to be considered (Dixon & Cunningham, 2006; Todd, Crook, & Barilla, 2005). One crucial assumption in conventional regression analysis is that the observations are independent. However, this assumption is violated by the present grouped data. If ordinary least squares (OLS) regression was applied, biased parameter estimates and Type I errors would be produced (Peugh, 2010). Therefore, multi-level modeling is required. In particular, multi-level mixed effects analyses accounting for this dependence of observations were performed. These mixed effects models were composed of a random intercept and fixed slopes (coefficients). This statistical method considers that people from the same sports club share similar organizational features that could possibly affect their voluntary engagement. Hence, it takes into account that organizational features can vary across organizations, but are stable amongst individuals that belong to the same organization. As long as there are more individual- than organizational-level cases, the share of individual- to organizational-level observations is unproblematic for the empirical analysis (Tabachnick & Fidell, 2007). Only small sample sizes at the organizational-level (50 or less) lead to biased estimates of the organizational-level standard errors (Maas & Hox, 2005).

In total, we estimated eight multi-level models. Specifically, for each of the two subsamples (adult members and parents of underage members), four models were calculated, one for each dependent variable (Table 1). Regarding the models that attempt to explain the decision to volunteer (either generally, formally, or informally), multi-level mixed effects probit regression analyses were conducted because the outcome variables are binary (Guo & Zhao, 2000). The impact of organizational capacity on the number of volunteering hours was estimated by applying multi-level mixed effects linear regression analyses since the outcome variable is metric. All models were composed of the same set of explanatory variables with a few exceptions due to inoperable computations. Hence, comparisons between adult members and parents of underage members as well as across different facets of voluntary engagement were largely possible. In addition to measures on the organizational-level representing the various dimensions of organizational capacity of sports clubs, individual-level variables were included in the analyses. We did so in order to control for individual factors that were found to be significant drivers of voluntary engagement.

Please cite this article in press as: P. Swierzy, et al., The impact of organizational capacity on voluntary engagement in sports clubs: A multi-level analysis, Sport Management Review (2017), http://dx.doi.org/10.1016/j.smr.2017.08.001

4. Results and discussion

4.1. Descriptive statistics

In Table 2, we present descriptive statistics for both subsamples. Recall that the means of dummy variables represent relative frequencies. Altogether, 85.2% ($n = 543$) of adult members in the sample volunteer formally and/or informally. A larger share of adult members engages formally (72.8%; $n = 464$) than informally (15.2%; $n = 97$). This distribution is different in the parent sample, where the shares of formal and informal volunteers are more equally distributed. Overall, 84.8% ($n = 496$) of parents in the sample volunteer; in particular, 47.9% ($n = 280$) engage formally and 43.6% ($n = 255$) engage informally. The relatively high share of volunteers in both subsamples might be explained by the fact that volunteers are generally more engaged for their club, might feel responsible, or want to avoid embarrassment emerging from lack of involvement (Tourangeau, Rips, & Rasinski, 2000). They also have a stronger attitude toward the research topic, which increases the response rate amongst volunteers (Helgeson, Voss, & Terpening, 2002). Further, adult members engage about 23 hours monthly, parents of underage members volunteer approximately 17 hours per month.

Summary statistics also draw a comprehensive picture of the clubs participating in this study. On average, clubs have 580.57 ($SD = 307.92$) and 467.69 members ($SD = 283.31$) in the adult member and parent sample, respectively. Clubs of the adult member sample employ on average 2.78 ($SD = 4.91$) paid workers, clubs of the parent sample 3.81 ($SD = 7.68$). Problems regarding the infrastructure are rated moderate on average. Financial concerns are reported to be moderate amongst clubs in the adult member ($M = 2.28$, $SD = 1.17$) and the parent sample ($M = 2.51$, $SD = 1.11$). In the parent sample, 25% of clubs had an unbalanced budget in the most recent calendar year, 13% of clubs in the adult member sample did not break even. Concerning the organizational form, the majority of clubs has a multi-department structure. Clubs in the adult member sample maintain relationships with on average 3.59 partner organizations ($SD = 3.13$), those in the parent sample with 4.08 organizations ($SD = 3.82$). Regarding club culture, most of the clubs strive to improve youth work and to offer sports for all programs. They place a medium to high value on tradition.

On the individual level, the adult and the underage member sample have the following characteristics: adult members are on average 44.61 years old ($SD = 14.90$) and children 11.64 years ($SD = 3.46$). Males are more frequently represented in

Table 2
Summary statistics.

Variable	Adults			Children		
	n	*M*	*SD*	*n*	*M*	*SD*
VOL	637	0.852	–	585	0.848	–
VOL_FORMAL	637	0.728	–	585	0.479	–
VOL_INFORMAL	637	0.152	–	585	0.436	–
VOL_HOURS	637	23.19	29.45	585	16.72	24.82
CLUBSIZE	229	580.57	2514.97	166	467.69	283.31
STAFF	229	2.78	4.91	166	3.81	7.68
VOLRATIO	229	0.097	0.053	166	0.107	0.095
BREAKEVEN	229	0.870	–	166	0.750	–
PROB_FIN	229	2.28	1.17	166	2.51	1.11
COOP	229	3.59	3.13	166	4.08	3.82
MULTISPORT	229	0.700	–	166	0.597	–
CULTURE_ALL	229	3.92	1.03	166	3.65	1.11
CULTURE_YOUTH	229	4.07	1.35	166	4.61	0.72
CULTURE_TRAD	229	3.19	0.91	166	3.07	0.99
CULTURE_CONV	229	4.12	4.44	166	4.25	4.38
AVAIL_FAC	229	2.26	1.41	166	2.51	1.42
COND_FAC	229	2.41	1.46	166	2.49	1.35
STRATEGY	229	3.74	0.98	166	3.75	0.95
AGE	637	44.61	14.90	585	11.64	3.46
AGESQ	637	2211.83	1355.00	585	147.49	80.30
MALE	637	0.867	–	585	0.798	–
INCOME	637	6.56	2.74	585	7.80	2.54
WORKHOURS	637	33.37	18.21	585	28.43	14.05
EDUCATION	637	4.48	1.62	585	1.25	0.83
FAMILY	637	0.71	1.12	585	1.07	1.27
CHILD	637	0.319	–	–	–	–
FRIENDS	637	22.80	50.17	585	10.03	10.92
EVENTS	637	4.39	5.65	585	2.42	2.25
MEMBYEARS	637	20.14	15.60	585	5.07	3.32
UTILIZATION	637	7.86	5.30	585	9.72	3.76
SPORT_BOTH	637	0.019	–	585	0.022	–
SPORT_TRACKFIELD	637	0.174	–	585	0.115	–
SPORT_FOOTBALL	637	0.807	–	585	0.863	–
COMPETITION	637	0.421	–	585	0.867	–

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both samples. The average income level of the members' household lies within a range of 3000€ to 4000€ ($M = 6.56$, $SD = 2.74$) for the adult member sample and within a range of 4000€ to 5000€ ($M = 7.80$, $SD = 2.54$) for the parent sample. On average, children spend about 28.43 h ($SD = 2.54$) at school, university, or work per week and adults 33.37 h ($SD = 18.21$). Adult members report to have 22.80 friends in the club ($SD = 50.17$) and parents report for their children that they have 10.03 club friends on average ($SD = 10.92$). Also, adult members attend 4.39 social club events per year ($SD = 5.65$), underage members attend 2.42 events annually ($SD = 2.25$). Furthermore, adult members hold their club membership since 20.14 years on average ($SD = 15.60$), underage members have spent 5.07 years in the club ($SD = 3.32$). Underage members use the club facilities and offers 9.72 times per month ($SD = 3.76$), adult members 7.86 times ($SD = 5.30$). Football is the major discipline in both samples with at least 80% of all survey participants (and children of participants) being member of a football club. Last, 42% of adult members take part in competitions, 87% of underage members perform competitive sports.

4.2. Multi-level models

In Table 3, we offer an overview of the results of the eight multi-level models. For the multi-level mixed effects probit regression analyses, average marginal effects are presented. These express how much the predicted probability of the outcome variable changes as a result of a one unit change in a predictor variable. Regarding the multi-level mixed effects

Table 3
Results of multi-level models for adult sports club members and parental authorities of underage sports club members.

Model	VOL		VOL_FORMAL		VOL_INFORMAL		VOL_HOURS	
	1.1 Adults	2.1 Children	1.2 Adults	2.2 Children	1.3 Adults	2.3 Children	1.4 Adults	2.4 Children
Organizational level								
CLUBSIZE	−0.000	−0.000	−0.000	−0.000	−0.000	0.000	−0.000	−0.033***
STAFF	−0.003	0.000	−0.005	−0.002	0.004	0.002	−0.225	0.292
VOLRATIO	−0.328	−0.351**	−0.238	−0.145	−0.133	−0.073	−51.699**	−29.303**
BREAKEVEN	−0.110**	0.047	−0.095	0.082	0.042	−0.068	−2.705	−3.450
PROB_FIN	−0.008	0.019	−0.032	0.044**	−0.004	−0.023	0.921	1.327
COOP	−0.004	−0.003	0.001	−0.001	−0.006	−0.008	1.086**	−0.034
MULTISPORT	−0.113***	0.043	−0.046	−0.032	−0.028	0.061	−7.546***	2.621
CULTURE_ALL	0.031**	0.020	0.028	0.033*	−0.015	−0.020	−2.960**	0.261
CULTURE_YOUTH	0.024**	−0.014	0.031**	−0.009	−0.023*	0.013	0.632	1.769
CULTURE_TRAD	0.012	0.011	0.002	0.026	−0.038**	−0.022	−0.026	−2.203
CULTURE_CONV	0.006	0.006	0.006	0.004	0.002	0.005	−0.089	1.448**
AVAIL_FAC	0.009	0.003	0.003	0.004	−0.019	−0.001	−2.474**	−1.684
COND_FAC	−0.007	0.005	−0.011	0.007	0.007	0.014	0.866	−0.447
STRATEGY	−0.017	0.019	−0.022	−0.026	0.035**	0.068**	−0.774	1.616
Individual level								
AGE	0.001	−0.005	0.011	−0.099**	0.003	0.118***	−0.116	−2.507
AGESQ	0.000	0.000	−0.000	0.004**	−0.000	−0.005***	0.005	0.101
MALE	0.056	0.029	0.033	−0.021	−0.074*	0.015	3.548	−1.584
INCOME	0.003	0.001	0.002	−0.006	0.003	0.005	−1.155***	−0.551*
WORKHOURS	−0.000	0.001	−0.001	0.004***	−0.001	−0.003**	−0.026	0.152***
EDUCATION	−0.009	−0.012	0.006	−0.019	0.006	−0.008	0.962	−0.078
FAMILY	0.074***	–	0.051***	0.110***	0.017	−0.079***	1.207	4.231***
CHILD	0.106***	–	0.073*	–	−0.009	–	−0.333	–
FRIENDS	−0.000	0.006**	−0.000	0.007***	−0.000	−0.003	0.017	0.295***
EVENTS	0.004*	0.052***	0.004	0.002	−0.002	0.009	0.607***	0.559
MEMBYEARS	0.003***	0.016***	0.003**	0.016**	−0.001	0.003	0.199**	0.144
UTILIZATION	0.012***	−0.001	0.014***	−0.003	−0.002	−0.001	1.536***	0.062
SPORT_BOTH	−0.065	−0.054	−0.168	−0.224	–	0.182	−12.704*	1.589
SPORT_TRACKFIELD	0.026	0.009	−0.155***	−0.084	–	0.174*	−13.021***	−12.521**
COMPETITION	−0.082**	0.166***	−0.080*	0.269***	0.057	−0.034	−10.805***	7.199***
Intercept	–	–	–	–	–	–	31.060**	27.453
Variance components								
ICC ρ	0.311	0.192	0.401	0.289	0.157	0.271	0.252	0.685
Wald χ^2	97.54***	86.08***	85.66***	123.20***	31.59	66.25***	173.64***	143.55***
−2LogLikelihood	148.13***	112.57***	109.41***	146.13***	30.03	59.54***	148.56***	128.34***
(Δdf)	(29)	(27)	(29)	(28)	(27)	(28)	(29)	(28)
LR test	0.14	0.11	4.65**	0.41	0.30	6.16***	10.82***	119.61***
$R^2_{individuallevel}$	–	–	–	–	–	–	0.144	0.216
$R^2_{organizationallevel}$	–	–	–	–	–	–	0.572	0.192
$n_{individuallevel}$	637	585	637	585	637	585	637	585
$n_{organizationallevel}$	229	166	229	166	229	166	229	166

Note: *$p \leq 0.1$; **$p \leq 0.05$; ***$p \leq 0.01$; reported are average marginal effects (1.1, 1.2, 1.3, 2.1, 2.2, 2.3) or unstandardized regression coefficients (1.4, 2.4).

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linear regression analyses, unstandardized regression coefficients are reported which can be interpreted as usual (i.e., the mean change in the outcome variable for a one unit change in the predictor variable). As the focus of this study lies on club factors, results on the organizational level are emphasized in the following.

4.2.1. Model assessment

The ρ-values of the intra-class correlations (ICC) indicate that the members of each club resemble each other in all models except model 1.3. The coefficient ρ for each fully unconditional random intercept-only model (including no explanatory variables) shows correlations between the respective outcome variables for individual-level units within the same organizational-level units. By comparing the deviances in the log likelihood values (*-2LL*) of the full (including all explanatory variables) and the random intercept-only models to the critical values of the χ^2-distribution with the respective change in degrees of freedom, it becomes clear that the estimated models are sufficient in predicting better than chance. The likelihood-ratio (LR) test reveals that half of the multi-level models calculated produce more accurate estimations than one-level OLS analyses would produce, indicating that there are significant variations in individual voluntary engagement between clubs in these models. Therefore, the application of multi-level modelling instead of conventional regression analysis was useful (Tabachnick & Fidell, 2007). The R^2 values for the organizational level support the importance of organizational capacity: In models 1.4 and 2.4, 57.2% and 19.2% of the variance is explained by organizational-level factors; only 14.4% and 21.6% by individual-level factors. Hence, from a quantitative perspective, the organizational context can be considered more relevant to explain individual behavior than individual characteristics amongst adult members and almost equally important amongst parents of underage members, supporting the choice of a social ecological approach.

4.2.2. Human resources capacity

Two of three human resources capacity measures significantly influence individual voluntary engagement. First, club size has a negative impact on the extent of volunteering by parents of underage members. This effect could be caused by a growth in anonymity or an encouraged free-rider problem in larger clubs (Heckathorn, 1989). Subdividing the sample into adult members and parents of underage members might explain why Schlesinger and Nagel (2013) did not find an impact of club size on volunteering in general. The present findings indicate that parents, who are external and therefore not directly affected by a larger number of club members and who volunteer for the benefit of their children, not themselves, have a stronger incentive to hide within the mass of other people related to the club, which they might perceive to be an easier task within larger clubs.

Second, the number of paid staff does not have a significant impact on voluntary engagement of individuals in both subsamples. Although the situation between paid staff and volunteers is often described as conflictual, as hiring paid staff might be associated with disempowerment (Cuskelly, 2004; Kim et al., 2007) and loss of control over organizational issues of volunteers (Thibault et al., 1991), we did not observe a negative impact of the number of paid staff on volunteers, which supports the findings by Schlesinger and Nagel (2013). It is possible that the relatively low number of paid staff does not affect the volunteering base. An alternative explanation is that the positions filled with paid staff are not directly related to volunteering activities in the clubs under investigation.

Third, the share of volunteers to members significantly influences the decision to volunteer of parents of underage members and the extent of voluntary engagement of adult members. Parents of underage members decide less often to volunteer if the existing share of volunteers at the club is already high. In particular, they are 35.1% less likely to volunteer in a hypothetical scenario in which all members would volunteer compared to a situation where nobody would volunteer. In contrast to adult members, they seem to recognize if a club is not in serious need for additional volunteers. Alternatively, this could be an indicator for the fact that being already integrated into a club increases the likeliness to volunteer. Whereas parents are probably less connected to other members or volunteers of the club as only a share holds a membership at the club, adult members are better networked and consequently, integrated. Nevertheless, similar to the parents of underage members, adult members seem to adapt to a circumstance where a larger share of individuals is already volunteering by engaging less intensely. If the share of volunteers increases by one percent, adult members volunteer 5.2 hours less per month and parents of underage members volunteer 2.9 hours less per month. Hence, adult members might be unwilling to quit their engagement, but they react by reducing their amount of time devoted to voluntary work. The findings support Wicker and Hallmann (2013) in arguing that individual volunteering decreases as a consequence of a visibility loss of a volunteer's contribution.

4.2.3. Financial capacity

The results concerning the financial capacity dimension indicate two significant effects. First, if clubs report to have achieved a financial breakeven in the most recent calendar year, adult members are 11.0% less likely to volunteer. In the case of reporting a balanced budget, adult members might increasingly demand that a club fulfills its purpose by first using the existing financial resources before unpaid work by volunteers is requested. If sufficient funds are available, adult members might not fear to lose benefits associated with their membership since the club's existence does not seem threatened. Since there is not an urgent need for more voluntary engagement in this case, members seem to be less likely to volunteer. This finding is contrary to Hager and Brudney's (2011) work, where these authors documented that a lack of adequate funds would impact volunteering negatively. Rather, we support the idea that human resources are partially substitutable by financial resources within sports clubs (Coates et al., 2014).

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Second, there is a positive relation between financial problems and formal voluntary engagement by parents of underage members. This finding re-emphasizes that financial resources which are needed to ensure the provision of sports programs (Wicker & Breuer, 2013) can be partially substituted by voluntary work (Coates et al., 2014). The results also suggest that parents of underage members have to rely more on perceptions for assessing the club's financial situation. Whereas members tend to be informed about the actual financial situation, because they are allowed to take part in annual meetings, parents of underage members as externals are not allowed to take part in members' annual meetings and must, therefore, more strongly rely on perceptions.

4.2.4. Structural capacity

Results show that the relationship and network capacity is a significant driver of the time of voluntary engagement by adult members. The more co-operations a club has, the more time adult members devote to voluntary work. On average, one additional partner organization leads to an increased amount of volunteering of approximately one hour per month. Since Misener and Doherty (2009) identified the time required to form and maintain relationships with partner organizations as the major challenge on the relationship and network capacity, an increased workload could be the reason why volunteers devote more time to their voluntary work.

Beyond this, different measures reflecting the infrastructure and process capacity of sports clubs influence individual voluntary engagement. In multi-sports clubs, adult members are less likely to volunteer and they also devote less time to their voluntary engagement. In particular, adult members engage about eight hours less per month, and amongst these, 11.3% less decide to volunteer at all. This finding differs from Schlesinger and Nagel (2013), who found no impact of organizational form on individual volunteering. However, Swiss sports clubs are mainly single-sports clubs, and those that incorporate multiple sports offer fewer different sports than German multi-sports clubs (Wicker et al., 2014). This effect might be explained by perceived injustice concerning the resource distribution amongst the departments or by higher levels of bureaucracy and specialization in multi-sports clubs that possibly lead to a lower willingness to volunteer (Musick & Wilson, 2008). The organizational form might have a negligible influence on volunteering of parents of underage members because they are external to the organization and, therefore, less aware of resource injustice or only indirectly influenced by organizational processes.

Furthermore, club culture is relevant to individual volunteering. First, if a club aims to provide sports for all programs, adult members are more likely to volunteer in general and parents of underage members are more likely to volunteer formally. Sports for all clubs have a club culture that is relatively integrative (Breuer & Wicker, 2011), as the focus is on providing sports participation opportunities to all population groups. Hence, individuals coming from a larger range of social and personal backgrounds are attracted to such a club. However, adult members devoted less time to their voluntary work. As integrative clubs often co-operate with schools (Breuer & Wicker, 2011), synergy effects might become apparent which could possibly reduce the volunteering time needed to provide sporting opportunities.

Second, if a club is more engaged in youth work, adult members are 2.4% more likely to volunteer in general and 3.1% more likely to have a formal voluntary position. Although the results indicate that adult members are less likely to engage informally (2.3%) in this case, the increased likelihood to engage formally causes the general increased likelihood to volunteer. Youth orientation could affect members in two ways. On the one hand, as mentoring experiences lead to renewed positive emotions and reinforced meaning to life amongst older volunteers (Larkin, Sadler, & Mahler, 2005), these positive outcomes likely influence the willingness to volunteer formally positively. On the other hand, members are negatively affected by youth orientation as the redistribution of resources (cross-subsidization) in favor of youth restricts resources available for other member groups, which is why adult members may be unwilling to additionally volunteer informally. Parents of underage members are not affected by cross-subsidization as they tend to be externals.

Third, in clubs being relatively resistant to changes and largely want to stay the way they are, adult members are also less likely to volunteer informally. Younger people, who grow up surrounded by an increasing number of leisure time alternatives, possibly prefer to engage informally. For these people, traditional clubs might appear to be less dynamic. They demand rather liberal volunteer working time concepts. Hence, informal volunteering could be more common in clubs that try to adapt to these more flexible lifestyles and needs of (potential) volunteers. Also, traditionally led clubs might more often actually demand formal commitments.

Fourth, the number of social events significantly increases volunteering hours of parents of underage members. Specifically, one additional event annually is associated with an increase of 1.4 volunteering hours per month. This finding supports Wicker and Breuer (2013), who found that clubs placing value on companionship and conviviality have smaller problems regarding the recruitment and retention of volunteers. The present results contribute and extend the understanding of this relation by showing that the effect is largely a function of voluntary engagement from parents of underage members. For providing an increased number of social events, clubs might explicitly request voluntary engagement from parents of underage members. For events occurring on an irregular basis, spontaneous and sporadic engagement from individuals is needed to cover additional requirements arising from event-related activities. On the other side, the extent of voluntary engagement of adult members is independent of the number of social events, maybe also because formal engagement is more frequently observed amongst adult members, whereas informal voluntary engagement is more often observed amongst parents of underage members (Table 2).

Regarding the available physical infrastructure and its condition, there is no significant connection to the decision to volunteer. Infrastructure availability impacts volunteering time of adult members though. In particular, increasing problems

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with the availability of sporting facilities significantly reduce the time devoted to volunteering amongst adult members. One source for frustration of volunteers is access to facilities (Misener & Doherty, 2009). Appropriate training grounds, problem-free material storage, and a facility base that "feels like a home" (Allison, 2001, p. 6) are also crucial in this context. However, in Germany, most clubs use public facilities that belong to the community and are also used by schools, implying that clubs have limited usage hours (Wicker & Breuer, 2011). Adult members who volunteer are, in their roles as producers (e.g., coaching, refereeing, administrating) and beneficiary participants of the sporting programs, affected from the producer and consumer side (Dawson & Downward, 2013).

Last, informal volunteering is significantly more likely in clubs with a strategic plan – 3.5% more likely amongst adult members and 6.8% amongst parents of underage members. Since problems regarding the recruitment and retention of volunteers can be reduced by a strategic plan (Breuer, 2013, 2014; Breuer, 2013, 2014), informal engagement is expected to be of significant value to clubs and, may therefore, be deliberately requested. Also, people appreciate if the club has a strategy, for example regarding the recruitment of volunteers (Østerlund, 2013). They are also satisfied by the existence of a strategic plan as this promotes stability and reduces uncertainty (Misener & Doherty, 2009). Strategic planning also enables a sports club to organize and structure informal volunteering which is characterized by irregularity, flexibility, and spontaneity.

5. Conclusion

The purpose of this study was to examine the influence of organizational factors on the individual decision to volunteer and the extent of individual voluntary engagement in sports clubs. The applied multi-level analyses reveal that each organizational capacity dimension significantly impacts the decision to volunteer and the extent of volunteering in German football and track and field clubs. The influential organizational factors identified, such as club size, share of volunteers, financial performance and problems, number of co-operations, availability of infrastructure, existence of strategic planning, organizational form, and culture, can be considered relevant for the capacity building process (Millar & Doherty, 2016).

We contribute to the body of research both theoretically and empirically. From a theoretical perspective, we contribute to ecological systems theory by conceptualizing how microsystems, in this case sports clubs, affect individual behavior in terms of volunteering. Specifically, we used the model of organizational capacity of nonprofit and voluntary organizations to conceptualize what organizational factors are expected to affect volunteering in nonprofit sports clubs and how. This conceptualization is unique to the sport volunteering context because employees in other sport microsystems, like for-profit organizations or sport events, may be affected by different organizational factors. Another theoretical contribution is made to the volunteering literature in the sense that the impact of organizational capacity is not conceptualized for volunteers in general, but for two distinct subgroups of volunteers, i.e., adult club members and parents of underage members. Sport management theory must therefore recognize that the same microsystem (i.e., the same sports club) may have varying effects on different groups of volunteers within this microsystem. From an empirical perspective, we contribute to the body of research by linking large-scale individual-level data with organizational-level data using multi-level analysis. We offer empirical evidence on the role of organizational capacity in individual volunteering decisions. Overall, we address the call for more multi-level studies and for a more detailed examination of different subgroups of volunteers (Wicker, 2017).

Several management implications arise based on the present results. Clubs should consider signaling scarcity of volunteers and financial resources. Specifically, club management should communicate a low ratio of volunteers to their current volunteers in order to increase the monthly duration of their engagement. In this case, management should promote volunteering especially amongst parents of underage members as these are more likely to start engaging as a volunteer. Moreover, reporting an unbalanced club budget (e.g., during members' annual meetings) as well as informally communicating perceived financial problems to parents of underage members would lead to an increased likelihood of volunteering amongst both subgroups. Regarding structural capacity, managing networks requires significant volunteering time of adult member volunteers, and, therefore, club management should take this into account when planning to initiate new co-operations with other institutions. Furthermore, clubs should be aware that different organizational objectives affect volunteering in both subgroups. For example, adult members are more likely to volunteer and take on formal voluntary positions in clubs promoting youth development and sport for all, while being less likely to volunteer informally in clubs that want to stay the way they are. Moreover, clubs should emphasize strategic planning because it is associated with higher informal voluntary engagement amongst both subgroups.

This study has some limitations. First, nonresponse bias could be an issue, although mitigation strategies were applied to the extent possible and wave analyses revealed only few differences between first wave and later wave respondents. Second, the individual-level response rate could not be calculated because of the sampling procedure. We do not know how many club representatives forwarded the survey invitation. Future research should add more levels to the presented two-level framework in an effort to provide a more holistic modeling of the factors affecting voluntary engagement, including community-level characteristics (e.g., Balish, Rainham, & Blanchard, 2016) and state-level factors (e.g., legal regularities and cultural norms). Also, since the focus was on football and track and field clubs and their members, an application of multi-level modeling to other sports clubs would allow identifying potential differences and similarities across sports. Another avenue for future studies is to examine whether and how organizational capacity affects volunteers in different roles (e.g., board members, coaches, referees).

Please cite this article in press as: P. Swierzy, et al., The impact of organizational capacity on voluntary engagement in sports clubs: A multi-level analysis, Sport Management Review (2017), http://dx.doi.org/10.1016/j.smr.2017.08.001

Disclosure statement

The authors declare that they have no conflict of interest.

Acknowledgements

We would like to thank the West-German Football and Track and Field Association (WFLV) for funding the related research project through which the data for the present study were collected.

References

Allison, M. (2001). *Sports clubs in Scotland*. Edinburgh, UK: SportScotland.
Andreff, W. (2006). Voluntary work in sport. In W. Andreff, & S. Szymanski (Eds.), *Handbook on the economics of sport* (pp. 219–224). Cheltenham, UK: Edward Elgar Publishing.
Balish, S. M., Rainham, D., & Blanchard, C. (2016). Volunteering in sport is more prevalent in small (but not tiny) communities: Insights from 19 countries. *International Journal of Sport and Exercise Psychology*1–11. http://dx.doi.org/10.1080/1612197X.2015.1121510.
Breuer, C., & Feiler, S. (2015). Sportvereine in Nordrhein-Westfalen [Sports clubs in North-Rhine Westphalia]. In C. Breuer (Ed.), *Sportentwicklungsbericht 2013/2014. Analyse der Sportvereine in Deutschland* (pp. 583–616). Cologne: Sportverlag Strauß.
Breuer, C., & Wicker, P. (2011). Vereinstypen [Types of clubs]. In C. Breuer (Ed.), *Sportentwicklungsbericht 2009/2010. Analyse der Sportvereine in Deutschland* (pp. 134–151). Cologne: Sportverlag Strauß.
Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.
Burgham, M., & Downward, P. (2005). Why volunteer, time to volunteer? A case study from swimming. *Managing Leisure*, *10*(2), 79–93.
Cnaan, R. A., Handy, F., & Wadsworth, M. (1996). Defining who is a volunteer: Conceptual and empirical considerations. *Nonprofit and Voluntary Sector Quarterly*, *25*, 364–383.
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*, 230–248.
Cuskelly, G., & O'Brien, W. (2013). Changing roles: Applying continuity theory to understanding the transition from playing to volunteering in community sport. *European Sport Management Quarterly*, *13*(1), 54–75.
Cuskelly, G. (2004). Volunteer retention in community sport organisations. *European Sport Management Quarterly*, *4*(2), 59–76.
Dawson, P., & Downward, P. (2013). The relationship between participation in sport and sport volunteering: an economic analysis. *International Journal of Sport Finance*, *8*, 75–92.
Deal, C. J., Pankow, K., Chu, T. A., Pynn, S. R., Smyth, C. L., & Holt, N. L. (2017). A mixed methods analysis of disciplinary incidents in men's soccer. *Sport Management Review*. http://dx.doi.org/10.1016/j.smr.2017.04.002in press.
Dixon, M. A., & Cunningham, G. B. (2006). Data aggregation in multi-level analysis: A review of conceptual and statistical issues. *Measurement in Physical Education and Exercise Science*, *10*(2), 85–107.
Doherty, A. J., & Carron, A. V. (2003). Cohesion in volunteer sport executive committees. *Journal of Sport Management*, *17*, 116–141.
Doherty, A. J., & Chelladurai, P. (1999). Managing cultural diversity in sport organizations: a theoretical perspective. *Journal of Sport Management*, *13*, 280–297.
Doherty, A. J., Misener, K., & Cuskelly, G. (2014). Toward a multidimensional framework of capacity in community sport clubs. *Voluntas*, *43*(25), 124S–142S.
Donnelly, P., & Kidd, B. (2003). *Realizing the expectations: Youth, character, and community in Canadian sport. The sport we want: Essays on current issues in community sport*. Ottawa, ON: Canadian Centre for Ethics in Sport, 25–44.
Erlinghagen, M. (2003). Die individuellen Erträge ehrenamtlicher Arbeit. Zur sozioökonomischen Theorie unentgeltlicher, haushaltsextern organisierter Produktion [Individual benefits of voluntary work—Toward socioeconomic theory of non-paid, household external organized production]. *Kölner Zeitschrift für Soziologie und Sozialpsychologie*, *55*(4), 737–757.
Guo, G., & Zhao, H. (2000). Mutlilevel modeling for binary data. *Annual Review of Sociology*, *26*, 441–462.
Hager, M. A., & Brudney, J. L. (2004). *Balancing act: The challenges and benefits of volunteers*. Washington, DC: The Urban Institute.
Hager, M. A., & Brudney, J. L. (2011). Problems recruiting volunteers: Nature versus nurture. *Nonprofit Management & Leadership*, *22*(2), 137–157.
Hall, M. H., Andrukow, A., Barr, C., Brock, K., de Wit, M., & Embuldeniya, D. (2003). *The capacity to serve: A qualitative study of the challenges facing Canada's nonprofit and voluntary organizations*. Toronto,ON: Imagine Canada.
Hansen, E., Fonager, K., Freund, K. S., & Lous, J. (2014). The impact of non-responders on health and lifestyle outcomes in an intervention study. *BMC Research Notes*, *7*, 632.
Harvey, J., Lévesque, M., & Donnelly, P. (2007). Sport volunteerism and social capital. *Sociology of Sport Journal*, *24*, 206–223.
Heckathorn, D. D. (1989). Collective action and the second-order free-rider problem. *Rationality and Society*, *1*, 78–100.
Heinemann, K., & Horch, H.-D. (1988). Strukturbesonderheiten des Sportvereins [Structural particularities of sports clubs]. In H. Digel (Ed.), *Sport im Verein und im Verband* (pp. 108–122). Schorndorf: Hofmann.
Helgeson, J. G., Voss, K. E., & Terpening, W. D. (2002). Determinants of mail-survey response: Survey design factors and respondent factors. *Psychology & Marketing*, *19*(3), 303–328.
Kim, M., Chelladurai, P., & Trail, G. T. (2007). A model of volunteer retention in youth sport. *Journal of Sport Management*, *21*(2), 151–171.
Koski, P. (2012). Finish sports club as a mirror of society. *International Journal of Sport Policy and Politics*, *4*(2), 257–275.
Lamprecht, M., Fischer, A., & Stamm, H. P. (2011). *Sportvereine in der Schweiz [Sports clubs in Switzerland]*. Magglingen: Bundesamt für Sport BASPO.
Larkin, E., Sadler, S. E., & Mahler, J. (2005). Benefits of volunteering for older adults mentoring at-risk youth. *Journal of Gerontological Social Work*, *44*(3–4), 23–37.
Lasby, D., & Sperling, J. (2007). *Understanding the capacity of Ontario sports and recreation organizations*. Toronto, ON: Imagine Canada.
Liao, H., & Chuang, A. (2004). A multilevel investigation of factors influencing employee service performance and customer outcomes. *Academy of Management Journal*, *47*(1), 41–58.
Maas, C. J. M., & Hox, J. J. (2005). Sufficient sample sizes for multilevel modeling. *Methodology*, *1*(3), 86–92.
Machin, J., & Paine, A. E. (2008). *Management matters: A national survey of volunteer management capacity*. London, UK: Institute for Volunteering Research.
Maitland, A., Hills, L. A., & Rhind, D. J. (2015). Organisational culture in sport—A systematic review. *Sport Management Review*, *18*(4), 501–516.
Millar, P., & Doherty, A. (2016). Capacity building in nonprofit sport organizations: Development of a process model. *Sport Management Review*, *19*, 365–377.
Misener, K., & Doherty, A. (2009). A case study of organizational capacity in nonprofit community sport. *Journal of Sport Management*, *23*, 457–482.
Misener, K., & Doherty, A. (2013). Understanding capacity through the processes and outcomes of interorganizational relationships in nonprofit community sport organizations. *Sport Management Review*, *16*(2), 135–147.
Musick, M. A., & Wilson, J. (2008). *Volunteers. A social profile*. Bloomington, IN: Indiana University Press.
Nagel, S. (2008). Goals of sports clubs. *European Journal for Sport and Society*, *5*, 121–141.
Nichols, G., & Shepherd, M. (2006). Volunteering in sport: The use of ratio analysis to analyse volunteering and participation. *Managing Leisure*, *11*, 205–216.
Nohria, N., Groysberg, B., & Lee, L. E. (2008). Employee motivation: A powerful new model. *Harvard Business Review*, *86*(7–8), 78–84.

Please cite this article in press as: P. Swierzy, et al., The impact of organizational capacity on voluntary engagement in sports clubs: A multi-level analysis, Sport Management Review (2017), http://dx.doi.org/10.1016/j.smr.2017.08.001

Østerlund, K. (2013). Managing voluntary sport organizations to facilitate volunteer recruitment. *European Sport Management Quarterly*, *13*(2), 143–165.
Penner, L. A. (2002). Dispositional and organizational influences on sustained volunteerism: An interactionist perspective. *Journal of Social Issues*, *58*(3), 447–467.
Peugh, J. L. (2010). A practical guide to multilevel modeling. *Journal of School Psychology*, *48*, 85–112.
Ringuet-Riot, C., Cuskelly, G., Auld, C., & Zakus, D. H. (2014). Volunteer roles, involvement and commitment in voluntary sport organizations: Evidence of core and peripheral volunteers. *Sport in Society*, *17*(1), 116–133.
Rogelberg, S. G., & Luong, A. (1998). Nonresponse to mailed surveys: A review and guide. *Current Directions in Psychological Science*, *7*(2), 60–65.
Rogelberg, S. G., & Stanton, J. M. (2007). Understanding and dealing with organizational survey nonresponse. *Organizational Research Methods*, *10*(2), 195–209.
Rotolo, T., & Wilson, J. (2012). State-level differences in volunteerism in the United States: Research based on demographic, institutional, and cultural macrolevel theories. *Nonprofit and Voluntary Sector Quarterly*, *41*(3), 452–473.
SARC (2013). *Sports club survey*. Retrieved May 10, 2017 from http://www.sportandrecreation.org.uk/policy/research-publications/sports-club-survey-2013.
Scheerder, J., & Vos, S. (2010). *Sportclubs in beeld. Basisrapportering over het Vlaamse Sportclub Panel 2009 [Sports clubs at a glance: basic report of the Flemish sports club panel 2009]*. Leuven: KU Leuven/Afdeling Sociale Kinesiologie & Sportmanagement.
Schein, E. H. (1985). *Organizational culture and leadership*. San Francisco, CA: Jossey-Bass.
Schlesinger, T., & Nagel, S. (2013). Who will volunteer? Analysing individual and structural factors of volunteering in Swiss sports clubs. *European Journal of Sport Science*, *13*(6), 707–715.
Schlesinger, T., Klenk, C., & Nagel, S. (2015). How do sport clubs recruit volunteers? Analyzing and developing a typology of decision-making processes on recruiting volunteers in sports clubs. *Sport Management Review*, *18*(2), 193–206.
Sharpe, E. K. (2006). Resources at the grassroots of recreation: Organizational capacity and quality of experience in a community sport organization. *Leisure Sciences*, *28*(4), 385–401.
Sport Scotland (2014). *Club culture*. Retrieved December 6, 2016 from https://www.sportscotland.org.uk/clubs/help-for-clubs/becoming-a-sustainable-club/club-culture/.
Studer, S., & von Schnurbein, G. (2013). Organizational factors affecting volunteers: a literature review on volunteer coordination. *Voluntas*, *24*(2), 403–440.
Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics*, (5th ed.) Boston, MA: Allyn & Bacon.
Taylor, P., Barrett, D., & Nichols, G. (2009). *Survey of sports clubs 2009*. London, UK: CCPR.
Taylor, P. D., Panagouleas, T., & Nichols, G. (2012). Determinants of sports volunteering and sports volunteer time in England. *International Journal of Sport Policy and Politics*, *4*(2), 201–220.
Thibault, L., Slack, T., & Hinings, B. (1991). Professionalism, structures and systems: The impact of professional staff on voluntary sport organizations. *International Review for the Sociology of Sport*, *26*(2), 83–98.
Todd, S. Y., Crook, T. R., & Barilla, A. G. (2005). Hierarchical linear modeling of multilevel data. *Journal of Sport Management*, *19*, 387–403.
Tourangeau, R., Rips, L. J., & Rasinski, K. (2000). *The psychology of survey response*. New York, NY: Cambridge University Press.
Wicker, P., & Breuer, C. (2011). Scarcity of resources in German non-profit sport clubs. *Sport Management Review*, *14*(2), 188–201.
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. (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., & Hallmann, K. (2013). A multi-level framework for investigating the engagement of sport volunteers. *European Sport Management Quarterly*, *13*, 110–139.
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*, 266–280.
Wicker, P. (2017). Volunteerism and volunteer management in sport. *Sport Management Review*, *20*(4), 325–337.
Wilson, J. (2012). Volunteerism research: A review essay. *Nonprofit and Voluntary Sector Quarterly*, *41*(2), 176–212.

Please cite this article in press as: P. Swierzy, et al., The impact of organizational capacity on voluntary engagement in sports clubs: A multi-level analysis, Sport Management Review (2017), http://dx.doi.org/10.1016/j.smr.2017.08.001