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Productive Organisational Energy and Performance in Estonian Football Organisations

Authors' contribution:
A) conception and design of the study
B) acquisition of data
C) analysis and interpretation of data
D) manuscript preparation
E) obtaining funding

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Abstract

Sports governance is a broad domain in which many ambitious goals are expected to be considered by top management. Attending to productive organisational energy may be the key to consolidating and amplifying efforts by members of sports organisations at individual, group and organisational levels in order to achieve those wide-ranging goals. The aim of the article is to discover whether Estonian football organisations with higher results for the dimensions of productive organisational energy also show higher performance. Overall, we reached about 14% of the population of players, coaching staff and management from football organisations in Estonia. Productive organisational energy was measured using affective, cognitive and behavioural dimensions (Cole et al., 2012). Rankings in the league tables for 2020, 2021 and 2022 reflected the performance of the football clubs. The results demonstrated that football clubs that had higher levels of productive organisational energy were mostly placed in the top half of the league table. All three dimensions of productive organisational energy were similarly relevant in regard to performance. The connection between productive organisational energy and performance has so far been analysed only in business organisations and in one health service organisation. We brought the topic to the sports context and distinguished three dimensions of productive organisational energy while comparing the performance of organisations, which has not been done before. We also conducted the first empirical study that considers whether dimensions of productive organisational energy are balanced in better performing clubs.

Keywords: Productive organisational energy, organisational performance, sports organisations, football, team management

Introduction

The bar for sports governance is quite high, as democracy and participation, ethics, and integrity, as well as accountability and transparency are all expected (Muñoz et al., 2023). Therefore, there is an abundance of possible ways to measure the performance of sports organisations. For example, one could consider financial aspects, human resources, communication with members and the public, performance of athletes and teams, and the skills of staff, among other things (Madella et al., 2005; Winland et al., 2010; Koski, 1995). Whatever aspects we take into account, according to the meta-analytic review by Van Iddekinge et al. (2023), the main contributor to performance is the effort of organisational members. This means that, with all the financial and human resources, with the

best facilities and other conditions, top results are not achieved when organisational members do not cooperate. Moreover, fluctuations in performance for seemingly no reason are a reality, especially in sports (Solomon & Malik, 2022). Therefore, the role of the psychological side of performance is increasingly coming to light in recent studies about sports (Géczi et al., 2022; Boyd et al., 2018). Consequently, it is important to find concepts that help us understand the mechanisms that mobilise people to perform their best, whatever the criteria for measuring performance. One of these certainly under-researched aspects especially in the sports sphere is productive organisational energy (henceforth POE). Among other important concepts of organisational behaviour that could be considered for mobilising organisational members (e.g. work engagement, organisational culture etc.), POE stands out because of its unique ability to manifest at individual, group and organisational levels, and to act as a link between the mentioned levels (Vogel, 2017; Schiuma et al., 2007). It is also valuable for its ability to amplify the joint efforts of organisational members (Schiuma et al., 2007; Vijayalakshmi & Bhattacharyya, 2012). As Pain and Harwood (2008) stress, well-coordinated individual, team and organisational efforts are crucial in sports. Hence, we find it appropriate to select POE as our research focus.

Energy, according to Schiuma et al. (2007), is something that reflects "the power, the drive, the 'get up and go' to overcome problems at work, to dispel tiredness and to go the extra mile" (p. 69). In the literature, at the collective level, this kind of energy is called POE. We draw on: 1) Interaction ritual theory, which illustrates how joint encounters and experiences encourage solidarity and shared energy among people (Collins, 1993) and 2) Social contagion theory, which expresses how emotions, attitudes and behaviours can transmit among individuals (Owens et al., 2016).

Prior research proved that POE is connected to the performance of the organisation (Schudy & Bruch, 2010; Cole et al., 2012; Kipfelsberger et al., 2019; Owens et al., 2016). However, previous studies have been conducted based on a wide range of sectors in business organisations (Schudy & Bruch, 2010; Cole et al., 2012; Kipfelsberger et al., 2019;) and one single health organisation (Owens et al., 2016). However, we argue that it is very important to pay attention to POE, specifically in team sports organisations, because POE covers both collective aspects and psychological aspects. Thomas et al. (2019) highlight that the collective side of it is more relevant in team sports than individual sports. Duarte et al. (2012) illustrate this by conceptualising sporting teams as "functional integrated super-organisms". From the psychological side, high energy levels can assist, for example, in terms of psychological momentum (Mach et al., 2022), team confidence (Fransen et al., 2015). For these reasons, our first contribution to the field is to investigate whether POE and performance are connected in sports.

Our second novel contribution is to distinguish three POE dimensions in the context of researching performance. Studies so far have looked at the aggregated POE value in their analysis (see, for example, Schudy & Bruch, 2010; Cole et al., 2012; Kipfelsberger et al., 2019; Owens et al., 2016). The authors of the present article find that using only the aggregated value of POE may result in the loss of some important information. It may well be that one of the POE dimensions plays a more important role in performance and another is less relevant, particularly because previous studies were based on business organisations and one on a health organisation. The situation may be quite different in the context of sports organisations, and more precisely football organisations. Consequently, we intend to discover how each of the POE dimensions is linked to performance in football organisations.

The third contribution is proving empirically the proposition by Liebhart (2013) that in order to achieve high performance all three POE dimensions need to be balanced and at a high level. Imbalanced POE dimensions would lead to low performance, according to Liebhart's (2013) approach. In the mentioned study, mentoring tandems were analysed, but we intend to bring this idea to the organisational level.

The aim of the article is to discover whether Estonian football organisations with higher results for the dimensions of POE also show higher performance. The results of the article provide insights into football club management with regard to whether it is worth monitoring and improving POE in general or a specific dimension of POE in order to achieve better performance. Previous research indicates that the actions of managers matter with regard to POE. For example, ethical leadership increases POE (Grobler & Grobler, 2021) and a transformational leadership style is favourable for POE (Kunze & Bruch, 2010; Walter & Bruch, 2010). Although we use the example of football clubs, the results may be applicable in sports organisations in general. Estonian football clubs are a suitable research subject for the intended research because the clubs in Estonia are relatively small, the level of hierarchy is low, and different members of clubs (owners, management, training staff, players, etc.) are a close-knit community. Therefore, POE can become manifest and take effect. The football clubs in the first two tiers of our football league are also highly comparable due to the relative similarity of other important characteristics (e.g. size, structure, funding, players' backgrounds, leagues attended, etc). Consequently, Estonian football clubs offer a unique and uniform platform for researching the connection between POE and performance.

The article is organised as follows. First, POE is defined and the elements that describe its nature are introduced. We also explain how POE is related to other con-

cepts of organisational behaviour, which further enables us to grasp the essence of POE. Second, previous study results about the connections between POE and performance are presented. Third, the data, measurement tools and data analysis methods are introduced. Fourth, the results of the study are presented, and finally, the results are discussed, and implications and limitations outlined.

Literature Review

The concept of productive organisational energy

In this subchapter we highlight how POE has been defined by different authors, and explore the similarities and differences in their views about POE. In this way, important elements that characterise POE are presented. We also discuss POE in light of other related constructs and highlight the mechanisms behind its functioning.

The analysis of definitions of POE has revealed that this concept is viewed very similarly by different authors, and in defining POE, researchers have mostly relied on three sources (Cole et al., 2012; Cole et al., 2005; Bruch & Ghoshal 2003). The most well-rounded version of the definition of POE, in our opinion, is presented by Cole et al. (2012), who define it as "the shared experience and demonstration of positive affect, cognitive arousal, and agentic behavior among unit members in their joint pursuit of organizationally salient objectives" (p. 447). We take this definition as the basis of our research because it contains all five vital elements that reflect the nature of POE.

First, POE is a collective phenomenon that is characterised by "shared experience" (Cole et al., 2012), "joint experience" (Schudy & Bruch, 2010; Borowik, 2013) or "common pursuit" (Walter & Bruch, 2010) in definitions by different authors. Work-related keywords are mostly mentioned in different POE definitions. For example, "unit members" (Cole et al., 2012), "staff" (Borowik, 2013), and "employees" (Walter & Bruch, 2010), but also a more general approach has been taken when pointing out "members of a collective" (Cuff & Barkhuizen, 2014; Schudy & Bruch, 2010), which could also apply in a non-work context, like charity work or sports.

Second, POE is multi-dimensional and contains affective, cognitive and behavioural dimensions (Cole et al., 2012). Sometimes, instead of "affective" the term "emotional" is used (see, for example, definitions based on Bruch & Ghoshal, 2003, and Cole et al., 2005). The affective dimension reflects feelings and emotions, the cognitive dimension entails intellectual processes in order to find constructive solutions to problems and generate good ideas, and the behavioural dimension means concrete actions towards making things happen (Cole et al., 2012).

Third, POE is multi-faceted. In the definitions, it is mostly referred to as a positive phenomenon (Cole et al., 2012; Cole et al., 2005; Bruch & Ghoshal, 2003), but in wider discussions its negative side is also developed. For example, Quinn et al. (2012) argue that energy can be energising but also de-energising. Similarly, based on research of mentoring tandems, Liebhart (2013) found that overly high energy brings overly high intensity and can cause exhaustion. Along the same lines, Bruch and Ghoshal (2003) discuss the importance of the quality of energy and conclude that negative energy can cause aggression and resignation, depending on whether the intensity of the energy is high or low.

Fourth, POE embodies a kind of strong collective striving referred to as "pursuit" (Cole et al., 2012); "effort or endeavour to reach" (Borowik, 2013), "mobilization" (Walter & Bruch, 2010) or "intense force" (Kunze & Bruch, 2010) in definitions. As Quinn and Dutton (2005) explain, in order to transform the energy that people have into performance, some kind of effort is needed. What is more, individuals can invest only as much effort as they have energy to spend (Schiuma et al., 2007).

Finally, POE is capitalised on in order to achieve objectives (Cole et al., 2012), goals (Cole et al., 2005) or targets (Borowik, 2013). Cole et al. (2012), Cuff and Barkhuizen (2014), and Schudy and Bruch (2010) in their chosen definition emphasise that the objectives are salient. Borowik (2013) and Walter and Bruch (2010) mention just targets or goals without indicating that these goals need to be outstanding, and Kunze and Bruch (2010) do not mention goals in their chosen definition at all.

It is important to note that all five of these POE elements are also manifested in other concepts of organisational behaviour. For example, while POE is a collective phenomenon, so are organisational culture (Preskar & Žižek, 2020) and group cohesion (Cole et al., 2012). Similarly, multi-dimensionality is nothing unique, as many concepts of organisational behaviour have different dimensions (e.g. work engagement (Schaufeli et al., 2002) and burnout (Maslach & Leiter, 2008 etc)). Moreover, the affective, cognitive and behavioural dimensions are precisely prevalent also at the individual level through attitudes (Jain, 2014) and at the group level through relational energy (Owens et al., 2016).

POE is mostly discussed in the positive context but can also have negative consequences, as discussed before. Similarly, work engagement is considered predominately a positive phenomenon (Schaufeli & Salanova, 2011), but some authors believe it can also have a dark side in the form of workaholism, problems with work-life balance, etc. (Bakker & Demerouti, 2008). The existence of a strong drive to achieve goals is a similar characteristic in POE and, for instance, work motivation (Quinn et al., 2012), and also work engagement (Owens et al., 2016).

A thorough overview of the similarities and differences between POE and other concepts can be found, for exam-

ple, in Cole et al. (2012), Owens et al. (2016), Quinn et al. (2012) and Alexiou et al. (2019). A short generalisation from this is that despite obvious similarities with motivation, work engagement and others, POE is still considered a distinct concept which of course has correlations with other similar constructs.

As mentioned in the introduction to this article, organisations, especially sports organisations, gain considerable benefit from moving from a more individual-based approach to collective approaches like POE. Of course, we still value aspects at the individual level, such as high work engagement, motivation, organisational commitment, job satisfaction, positive attitudes, and so on, but the next step is to ensure that positive individual level attitudes and behaviours spill over to the collective level. Therefore, the collective result is not just the sum of individual results but possibly greater (Schiuma et al., 2007; Vijayalakshmi & Bhattacharyya, 2012). This can be explained using two theories: 1) interaction ritual theory (Collins, 1993) and 2) social contagion theory (Barsade, 2002). Interaction ritual theory proposes that individuals are drawn to and reach out to interact with other individuals that enable them to elevate their feelings (Owens et al., 2016; Quinn et al., 2012). For example, a spectator gets a much bigger rush of emotions when watching a sports competition with others. Social contagion theory, as the name suggests, manifests how people spread their emotions, attitudes and behaviours among each other (Owens et al., 2016). Consequently, in team sports, for example, every member of the team matters because they affect others positively or negatively (Vijayalakshmi & Bhattacharyya, 2012). For example, when one or several players have a positive mindset and cheer the others on, this may help the team to win. Both interaction ritual theory and social contagion theory are highly relevant for explaining the nature of POE.

Connection between productive organisational energy and performance

In their meta-analytic review, Van Iddekinge et al. (2023) argue that the most vital basis of performance is effort. Based on their analysis, they also maintain that several individual, group and organisational level factors contribute to the willingness of organisational members to exert effort. For example, work engagement, motivation, group cohesiveness, leadership organisational culture, and others, are all found to be relevant here. However, what is special about POE is that it covers all the mentioned levels. Meaning that individual level energy spills over to the group level and group level energy, in turn, contributes to organisational level energy (Vogel, 2017; Schiuma et al., 2007). What is more, POE can serve as a link between factors at different levels and help to spread emotions, statements and actions. POE also amplifies organisational members' efforts, as discussed in the previous section of the article and which is illustrated by the bold arrow in Figure 1.

The connection between POE and performance seems logically derivable from the definition of POE. Naturally, if organisational members are jointly and energetically pursuing (exceptional) organisational goals, the end result is bound to reflect that. In addition, high performance

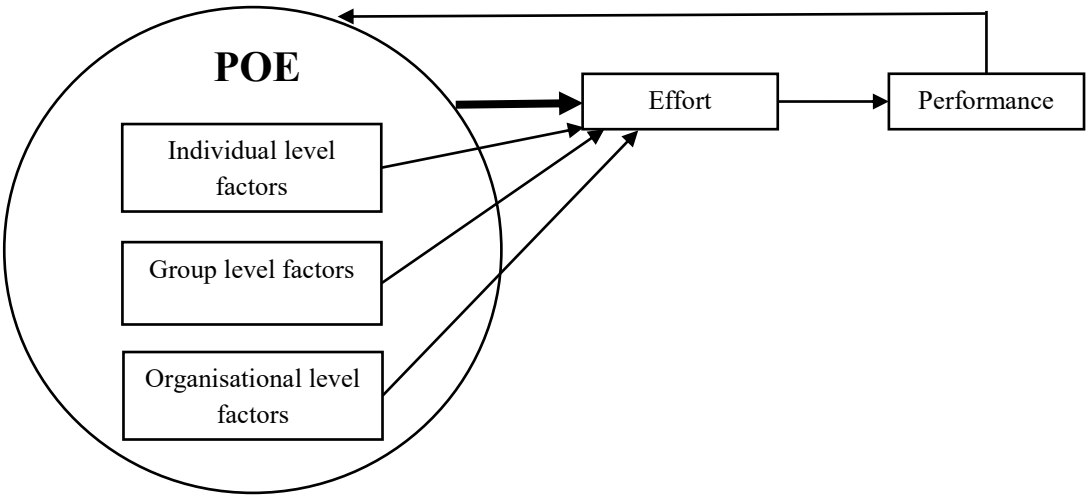


Figure 1. POE as a connecting link between individual, group and organisational level factors improving the efforts of organisational members and thus laying the ground for performance

Source: compiled by the authors relying on the ideas of Van Iddekinge et al. (2023), McEwan & Beauchamp (2014), Schiuma et al. (2007), Mach et al. (2022), Fransen et al. (2015), and Vogel (2017)

may in turn improve POE (McEwan & Beauchamp, 2014; Schiuma et al., 2007). As the studies of sports teams by Mach et al. (2022) and Fransen et al. (2015) very clearly illustrate, success can breed success. Although Vogel et al. (2022) argue that, on the one hand, very high performance may result in being overconfident and over comfortable, which may cause a decline in POE and a downward spiral to lower performance. On the other hand, low performance may also galvanise organisational members to show higher energy in order to prevent further low results (Vogel et al., 2022). Stancampiano (2019) stresses that one of the important tasks of leaders is to manage the energy of the organisation depending on the situation: "The leader or manager is there to deescalate energy when it rises, or allow it to get intense if it's needed – and always brings it back to a place of productivity." (p. 6). Energy can change over time, which complicates things even more. As Vogel et al. (2022) have very well illustrated, POE can change over the short term and the long term.

Nevertheless, previous empirical studies of POE and performance overwhelmingly prove their positive connection both with subjective (opinions of respondents) and objective performance. For example, Schudy and Bruch (2010) surveyed 17,772 participants from 118 companies from Germany from a wide range of sectors (e.g. manufacturing, service, trade, finance and insurance) and found that POE positively influences the financial, customer, and employee performance of firms. Similarly, Cole et al. (2012), based on 5,939 respondents from 92 companies in Germany, proved that in companies with higher POE, the organisation members believed more their firm's performance was better than that of rival firms. Also, based on data from Germany (9,094 participants from 86 firms from the service, production, trade and finance sectors), Kipfelsberger et al. (2019) showed that POE is correlated to performance ($r = 0.25$). In a similar vein, Owens et al. (2016) analysed 123 participants from a health service organisation in the US and discovered that POE and objective organisational performance were correlated ($r = 0.27$). As the empirical results are very straightforward, we can set out a hypothesis as follows:

H: Football organisations with higher POE have higher performance.

Schiuma et al. (2007) point out that the three dimensions of POE merge and, in their interaction, reflect the overall energy level. However, Liebhart (2013) proposes that it is vital for high performance that all three POE dimensions are balanced and at a high level. For example, lower levels of emotional POE may, in Liebhart's opinion (2013), risk breaking up the team, feelings of defensiveness and a lack of investment in mutual relationships, which in turn results in the team not achieving its potential. This author analysed mentoring tandems, but as energy at the individual and group level spills over to energy at the organisational level (Vogel, 2017; Schiuma et al., 2007), this principle may also be relevant for the organisational level. Following social contagion theory (Barsade, 2002), energy is, so to say, 'contagious' and both positive and negative energy is transmitted between individuals and groups and manifests at the organisational level. Unfortunately, Liebhart (2013) did not research the aspect of the balanced dimensions of POE empirically at the organisational level and the authors did not find any other study that has done so.

Hence, although it is universally acknowledged that POE has three dimensions, none of the articles about the relationship between POE and performance distinguishes these dimensions in their empirical analysis (see, for example, Schudy & Bruch, 2010; Cole et al., 2012; Kipfelsberger et al., 2019; Owens et al., 2016). As we have already explained in the introduction, we think distinguishing the dimensions of POE in the context of performance may provide valuable additional information. As we have no empirical evidence, we pose the following research questions:

RQ1: Are all POE dimensions equally relevant for the performance of football organisations?

RQ2: Do football clubs with balanced POE have higher performance and with imbalanced POE lower performance?

Data and Method

Sample

To collect the data, 20 clubs from the first two tiers of the Estonian football league were contacted by email, Facebook and through personal contacts. Data was collected between April 13 and 28, 2022. As each club has on average around 35 members, including players, coaches, management, and others, the total population is approximately 700. We obtained 111 responses from 15 clubs. Unfortunately, there were too few respondents from some clubs to make generalisations at the organisational level. For that reason, we included only clubs with 7 or more participants in our analysis. Consequently, the final sample size is 96 individuals from 9 clubs. The clubs had on average 10 participants (ranging from 7–17 individuals). All in all, we reached about 14 per cent of the population.

To better understand the context of our research, it is also important to describe the main features and characteristics of the 15 clubs that made it to the sample. Even though our sample includes clubs with a different status (it has both the best clubs in Estonia competing for medals, and clubs from Esiliiga – the second tier of the Estonian football league) and the characteristics of the clubs vary within the sample, we can extract some common features that are shared by all the organisations included in the sample.

First, it is common for football organisations in Estonian football to be characterised by a relatively low number of employees, meaning that some respondents to our questionnaire perform more than one role in their organisation. For example, according to the authors' personal knowledge of the structure of football clubs in Estonia, it is common for people in Estonian football to hold coaching and administrative positions simultaneously. Since Estonian football organisations do not have access to massive financing, some employees need to spend more time performing their indirect duties, which, as the authors assume, may have an impact on their POE.

Second, in Estonian football clubs the share of foreign players across teams is very low, which is caused by the restrictions that the Estonian Football Union has imposed on the number of players without an Estonian passport that are allowed to be registered by a team. In the context of our research, this would mean that players, coaches and administrative staff members in Estonian football organisations mostly come from Estonia and thus have a similar background.

Third, the clubs in Estonia play quite often. Sometimes even 1–2 times per week. The games are held in different parts of the country meaning that besides competing and training, a lot of time is also spent travelling.

Breaking the sample down, 76% of the participants were players, 14% members of the coaching team and 10% had administrative positions. Four clubs were from Tallinn, the capital of Estonia, which has the largest number of clubs. Five clubs were from other larger and smaller cities of Estonia. In terms of language, 87% of the questionnaires were filled out in Estonian and 13% in Russian. None of the participants chose English. We did not include questions about gender, age, and so on, in our questionnaire in order to maintain the anonymity of the participants. Due to the small community in Estonian football, overly detailed information would make it possible to recognise the respondents.

Measures

To measure the dimensions of POE, we used the measurement tool devised by Cole et al. (2012), which is most used in POE research in general and is also most used in studies about POE and performance. This tool was compiled in several stages, including qualitative and quantitative approaches and involving several experts and samples and the results of previous studies. This process is more thoroughly explained in Cole et al. (2012), but the initial goal was to find statements that reflect situations where individuals worked energetically and how they felt and interacted with others.

The final tool from Cole et al. (2012) has 14 statements – 5 about affective POE, 5 about cognitive POE and 4 about behavioural POE. Cole et al. (2012) used 5-point scales and we chose the same (for affective POE 1- never, 5-frequently; for cognitive and behavioural scales 1- strongly disagree, 5-strongly agree). The affective dimension reflects emotions that could contribute to POE. Namely, feeling excited, enthusiastic, energetic, inspired and ecstatic. The downside for the respondents while evaluating aspects from the affective dimension could be that it is rather hard to differentiate between these feelings, especially when evaluating others. In addition, some of the feelings may seem to go a little overboard in the professional context. In the opinion of the authors of the current article, being ecstatic, for example, is not essential in professional sport. The cognitive dimension evaluates the mental alertness of the organisational members to act, develop and contribute to the organisation's fortunes. Here the difficulty for the respondents could be that it is very hard to estimate whether others are, for example, mentally alert or care and are willing to act, although one can probably derive some information from mutual conversations and observing the behaviour of others. The behavioural dimension highlights the extent to which organisational members are acting in an energetic manner. One criticism here may be that some of the statements may be perceived as contributing to burnout among organisational members. For example, working extremely long hours may not be positive in the long run. Also, working at a very fast pace may lead to lower quality. Despite these critical observations, the measurement tool created by Cole et al. (2012) is widely used and thus makes comparing different studies possible. For this reason, we decided to adapt this measurement tool for our study.

As most of the members of Estonian football organisations are Estonian and Russian speakers, we adapted the measurement tool (Cole et al. 2012) for use in Estonian and Russian using the back translation method and a professional translation agency. First, the English version was translated into Estonian. Second, the Estonian version was translated back into English by another person. Third, the English original and backtranslation were compared by a third person who is a native English speaker with considerable experience in academic editing. Fourth, where necessary, adjustments to the Estonian version were made in order to ensure there was no ambiguity. The same process was followed with the Russian version.

A pilot test of the questionnaire was conducted in all three languages. A native English speaker, native Russian speaker and native Estonian speaker filled in the questionnaire and ensured that everything was understandable and correct in their respective language. An indicator that the translations were successful is a reliability over 0.7 for the three POE dimensions and for the aggregated POE score (see Table 1).

There is a plethora of literature discussing what aspects should be used to evaluate the performance of sports

organisations. Muñoz and Solanellas (2023) have conducted a meta-analysis based on previous studies and concluded that "there is no consensus in the literature on the dimensions to be measured, there is even less consensus on the indicators that should make up each of these dimensions" (p. 17). Also, they stress that some dimensions are difficult to measure, and it is hard to ensure objectivity. To overcome these issues, we chose the simplest and most objective measure in order to identify the performance of Estonian football clubs, namely, we chose on-field performance, which according to Wilson and Anagnostopoulos (2017) is used fairly often.

We looked at the standing of the clubs in the respective league table for three years: 2020, 2021 and 2022 (as of 04.08.22) and calculated average performance based on that. The average was used because in 2020 the season was interrupted by Covid-19 for about two months and the 2022 season is not finished yet. Nevertheless, the performance results from the three years are strongly correlated (0.91–0.99), which means that the level of football clubs does not change dramatically within such short time periods. Earlier data than 2020 was not used because there have been changes in the management and players in teams and the results would not be applicable.

The following tests were used in the data analysis: 1) Spearman correlation coefficient for finding the correlation between POE dimensions and performance in each year, and 2) Mann-Whitney U test for comparing higher and lower performing clubs and opinions of respondents with different roles. The significance level chosen for the analysis was 0.05.

Results

On average, the results for the dimensions of POE were quite high in the Estonian football clubs researched (see Table 1). The respondents were also rather in agreement about this topic, as the standard deviations were low. Minimum estimations were between 2.0–3.0, showing that nobody perceives the lowest amount of POE, which is 1.

Additionally, there were no differences in estimations depending on the position of the respondent. Meaning that players, members of the coaching team and the administration have similar perceptions of the dimensions of POE (p=0.34–0.47). However, there were differences in the estimations in different clubs. Namely, the comparison of higher performing and lower performing groups showed that aggregated estimations of POE are statistically significantly higher in clubs in the first half of the league table (see Table 2), meaning that they reported higher energy levels among their club members but the differences are rather small. Therefore, although the hypothesis that we set out was supported, the role of POE is not overwhelming.

Relatively, the same result also emerged when the dimensions of POE were viewed separately. Namely, estimations of all three dimensions are mostly slightly higher in clubs that are in the first half of the league table (see Table 2). When we look at the clubs one by one, we can conclude that higher performing clubs reported mostly higher than average or close to average results in all three POE dimensions (see Table 3). The only exception is the club with code 1, which had a lower result for affective

Table 1. Descriptive statistics and reliability of POE

Dimension of POE	Cronbach's α	Average	Median	Minimum	Maximum	Standard deviation
Affective	0.84	3.97	4.00	3.00	5.00	0.57
Cognitive	0.73	4.09	4.00	2.60	5.00	0.50
Behavioural	0.74	3.94	4.00	2.00	5.00	0.62
Aggregated POE	0.89	4.00	4.02	2.78	5.00	0.48

SD - standard deviation, 5-point scale

Table 2. Mean comparison of higher and lower performing clubs

Dimension of POE	Placed in the first half		Placed in the second half		Mann-Whitney U test
	Average	SD	Average	SD	
Affective	4.08	0.56	3.83	0.55	0.02*
Cognitive	4.19	0.42	3.96	0.56	0.03*
Behavioural	4.07	0.51	3.78	0.71	0.04*
Aggregated POE	4.11	0.40	3.86	0.53	0.01*

*- difference is statistically significant at 0.05; SD- standard deviation, 5-point scale

Table 3. Average estimations and standard deviations of clubs based on their performance

Position in the league table	Club code	Affective		Cognitive		Behavioural	
		Average	SD	Average	SD	Average	SD
First half	1	3.57	0.62	4.17	0.31	3.93	0.51
	2	4.13	0.42	4.23	0.31	4.07	0.33
	3	4.22	0.40	4.27	0.56	4.21	0.62
	4	4.38	0.51	4.20	0.50	4.22	0.46
	5	3.90	0.78	4.00	0.40	3.78	0.63
Second half	6	4.15	0.74	4.42	0.55	4.25	0.87
	7	3.76	0.49	3.95	0.47	3.79	0.53
	8	3.72	0.67	3.70	0.68	3.53	0.81
	9	3.78	0.35	3.82	0.43	3.60	0.68

SD- standard deviation, 5-point scale

POE. Although placed in the first half of the league table, this club is not a frontrunner. Therefore, mostly better performing clubs have slightly higher results in all three POE dimensions, which answers research question 1.

Clubs in the lower performing group show mostly lower than average results in all POE dimensions. There is again one exception, where the club with code 6 has high POE results but is not in the first half of the league table. However, this club has made great progress over the years. Over the three years, this club has not been a frontrunner but it has improved year by year, and in 2022 this club is already in the first half of the table.

It is also important to note, however, that the differences are rather small and some clubs in the second half have even better results in some dimensions than clubs in the first half.

Moving on to answering the second research question. Here we can conclude that the POE dimensions are well-balanced in Estonian football clubs. The lower performing clubs do not show imbalanced POE dimensions but have generally lower POE in all dimensions. Consequently, the answer to the second research question is that in the football clubs researched the overall pattern is that when POE is high, it is high in all dimensions and when it is low, it is low in all dimensions. The results of the correlation analysis also support this finding (see Table 4). Namely, all three dimensions of POE are quite strongly correlated.

Table 4. Correlation analysis of POE dimensions

Dimension of POE	Affective	Cognitive
Affective		
Cognitive	0.53	
Behavioural	0.47	0.75

Discussion

This study intended to verify whether and how POE has a role in the performance of Estonian football organisations. First, we discovered that the estimations of POE in Estonian football organisations were on average rather high (4.11 on a five-point scale) and the respondents were quite unanimous about that. That means that the members of football organisations feel excited, energetic and inspired; they are motivated to make things happen and care about the fortunes of the organisation, and the people are active and work hard. As one of the players of the Estonian national team reflects: "It is good for the team climate when everybody is enthusiastic. For me the most important thing is that the players have good and positive relations" (Jürjens, 2021).

In previous studies based on private and public organisations in various countries, POE estimations have been mostly slightly lower compared to our results. For example, between 3.47–3.70 in Germany (Cole et al., 2012; Kipfelsberger et al., 2019; Walter & Bruch, 2010), 3.44 in Turkey (Müceldili & Erdil, 2015) and between 3.24–3.43 in South Africa (Cuff & Barkhuizen, 2014; Grobler & Grobler, 2021). The only exception was the study by Alexiou et al. (2019) in the Netherlands, where the average estimation of POE was 4.10.

The fact that estimations of POE are mostly higher in the field of sports is somewhat expected based on studies about related concepts like group cohesion and engagement. Namely, POE is positively correlated to cohesion (Cole et al., 2012) and work engagement (Owens et al., 2016). Previous research shows that group cohesion in business organisations is usually lower (Alleyne et al., 2019; Urien et al., 2017; Liden et al., 2004) than in sports teams (Worley et al., 2020; De Backer et al., 2015; Høigaard et al., 2006). Naturally, the feeling of togeth-

erness in sports teams (social cohesion) and common purpose (task cohesion) and attraction of the group are essential, as the members of the team spend a lot of time together training, travelling and competing, and team performance is affected by each member's contribution. In business organisations, depending on the job specifics, at least some parts of the work could be individually performed. Thus, in team sports there are many more possibilities for the principles covered in interaction ritual and social contagion theories to emerge, although, in the authors' opinion, a good balance needs to be found. Forcing energy levels to be too high may backfire. As one of the coaches of the higher performing teams reflected in an interview: "Keeping a stable mindset is very important in my opinion. There should be enough excitement and enough calmness at the same time. Sport performance is best in that moment when the team is not too excited or too relaxed" (Henn, 2021).

With respect to group cohesion, work engagement among employees of business and public organisations has been lower (van Zyl et al., 2021; vanDorssen-Boog et al., 2021; Chong et al., 2021) compared to sports teams (Guillén and Martínez-Alvarado, 2014; Scotto di Luzio et al., 2020; Jowett et al., 2016). Participating in competitive sports self-evidently requires that the team has high levels of vigour, dedication and absorption, which, based on Schaufeli et al. (2002), are the components of engagement. High work engagement would certainly be very favourable in business, but one cannot forget the potential dark side of high engagement. Working day in day out with very high intensity and dedication may result in burn out or health problems, among other things. A working career usually lasts longer than the typical sports career, which also means working into the later years of life accompanied with cumulating health problems, family problems, and so on, which may affect work engagement. What is more, in competitive sports people are, as a rule, younger and of a similar age. Being of a similar age has been proven to encourage POE (Kunze and Bruch, 2010).

Second, our study supported the hypothesis that football organisations with higher POE have higher performance. This result is in line with previous studies in business and public organisations (Schudy & Bruch, 2010; Cole et al., 2012; Kipfelsberger et al., 2019; Owens et al., 2016) and highlights that it is worth paying attention to POE in football organisations and probably in sports in general. Even though the differences between higher performing and lower performing clubs were small, success may lie in small matters and details.

What is more, high results and successful competing may in turn increase POE or vice versa (Mach et al., 2022; Fransen et al., 2015; Vogel et al., 2022). Unfortunately, in light of social contagion theory, negative emotions, thoughts and actions can also spread among organisational members and, according to interaction ritual theory, they are amplified. Consequently, it is an upward spiral or downward spiral, and psychological momentum (Mach et al., 2022) and team confidence (Fransen et al., 2015) play an important role in sports. As one of the Estonian football coaches reflected after a long losing streak: "The change will come. We need time and patience. And one big win that would give us an energy boost. We really need it, and we are waiting for it." (Vaher, 2023).

Success breeds success, as we can conclude from the conceptual framework of teamwork proposed by McEwan and Beauchamp (2014), which implies that performance feeds the affective, cognitive and behavioural states of sports players, and that this, in turn, influences individuals and team level inputs, contributing to performance. The same principle has been introduced by Schiuma et al. (2007), namely, that energy contributes to performance but also performance influences both the quality (positive vs negative) and intensity (high vs low) of energy. Nevertheless, following the idea of Vogel et al. (2022), one cannot become overconfident and complacent, as POE needs constant care. According to previous research, POE can be enhanced, for example, through setting clear goals, decentralisation and implementing a transformational leadership climate, which entails novel thinking and problem solving, encouraging a team spirit and collaboration, leading by example, being considerate about followers' needs and feelings, etc. (Walter & Bruch, 2010; Kipfelsberger et al., 2019; Schippers & Hogenes, 2011; Alexiou et al., 2019). One can start POE management even while recruitment and selecting suitable people for the team and socialising them well (Schiuma et al., 2007). It can also begin with one key person who energises others and leads the way. For example, after a few months on the job, the new head coach of one higher performing Estonian football club emphasised the valuable role of the CEO as follows: "Mart Poom gives a very positive and strong energy to this project and it is an honour to work with such a person and help the club take the next step in their history" (Vassiljev, 2023). Muñoz et al. (2023) stress that senior management is also responsible for achieving high standards of sports governance, and dealing with POE may contribute to that.

It is highly commendable that in the field of sports these kinds of 'soft' topics are also attracting increasing attention and are valued in the context of achieving higher performance. For example, shared leadership (van Dalfsen et al., 2021) is gaining momentum, both in research and practice. As one respondent in a study by Coker et al. (2021) on youth football players vividly puts it: "I'd say if that one person wasn't having the best day, he would have no one to lift him up but say there was more than one leader, say that the whole team were leaders we could all help each other instead of one person helping the whole team" (p. 5). Furthermore, self-leadership, which is the

newest addition to contemporary leadership, is something that needs to be developed in sports, according to Megheirkouni (2018). Additionally, achieving a state of flow seems to be valuable in team sports (Boyd et al. 2018). Traditional leadership strategies, like empowering and helping follower growth, creating a team culture and others (Dahlin & Schroeder, 2022), are of course everlasting and important for performance and contribute to POE in sports. Overall, although all organisational members contribute to POE, key figures should ideally be the initiators and act as energisers (Schippers & Hogenes, 2011) and also regulate energy levels (Stancampiano, 2019).

Third, in our study we answered two research questions about whether all three POE dimensions are equally relevant for the performance of football organisations and whether higher performing teams have balanced POE dimensions and lower performing teams imbalanced POE dimensions. So far, there has been no empirical evidence on these topics. We know from social contagion theory and interaction ritual theory that emotions, statements and actions are interchanged and amplified during interactions between individuals, but we had no clear understanding of whether some aspects would be more important to spread than others. It turned out that all three POE dimensions tended to be slightly higher in higher performing clubs, which indicates that all three dimensions are relevant for performance, and also that all three dimensions were balanced, which means that we were able to prove empirically the proposition of Liebhart (2013) on the organisational level in the case of high performing teams. However, in lower performing clubs, POE dimensions were not imbalanced, as Liebhart (2013) had assumed. POE dimensions were mostly equal at a lower level compared to the better clubs. Here we cannot make far-reaching generalisations based on one study and one sample. Much more research is needed in order to better understand whether POE dimensions need to be balanced and what contributions that would make with regard to performance and other important aspects contributing to performance (e.g. group cohesiveness, organisational culture, etc).

Furthermore, it is important to note that these results were gained based on Estonian football clubs. It is probable that in some other sector imbalanced POE dimensions would appear and hinder performance as proposed by Liebhart (2013). Clearly, this aspect of POE needs further research in various sectors and professions.

Conclusions

Theoretical implications and future research directions

Our main theoretical contribution was to propose the model in Figure 1, which illustrates the nature of POE and connects it to performance via the mediating factor of effort. We knew from previous research that POE manifests on three levels (individual, group and organisational) and that it has the capacity to unify these three levels and amplify the efforts of organisational members. We brought all of this information together under one umbrella. In addition, we highlight the need to research POE dimensions together, but also separately. Taşdemir et al. (2023) has looked at the three dimensions separately but not in the context of performance. What is more, we have built on Liebhart's (2013) idea about balanced POE dimensions and brought this to the organisational level.

We have also contributed to widening the research on POE and performance by applying it to the field of sports, establishing that this connection is also applicable in the sports context, more precisely in football organisations. A new research direction could be exploring in-depth the ideas of Liebhart (2013) concerning balanced POE dimensions. Our first attempt to prove this idea empirically at the organisational level has resulted in partial support. Furthermore, looking at the dimensions of POE separately in studies would be useful. Indeed, all POE dimensions played the same role in performance in our study, but in some other areas this may be not so. Additionally, following the ideas of Stancampiano (2019) about managing the energy levels of organisational members could be researched in terms of whether there is an energy saturation point – could too much energy to be counterproductive sometimes and should leaders find the right dose of energy in various situations? In addition, the ideas of Vogel et al. (2022) about short-term and long-term changes in POE deserve more research.

Practical implications

To conclude, we can say that it is worthwhile monitoring POE levels in organisations and especially in sports organisations due to its collective and psychological nature. Therefore, one should be on the lookout not only for energy intensity levels but also the quality of energy (Bruch & Ghoshal 2003). The measurement tool devised by Cole et al. (2012) is now also available in Estonian and Russian, but for a more in-depth view, qualitative methods could also be considered. POE can, if necessary, be improved by management through thoughtful goal-setting, leadership, team and culture building, etc.

Limitations

The limitation of our study is that it is based on a small sample of Estonian football clubs. Naturally, the results may not apply to other sports or other countries with different cultural backgrounds or sports systems. In addition, with self-reported data we solely rely on the respondents' opinions about the topic, which may not fully reflect the reality. There are also potential issues with the measurement tool as discussed in the Measures section of the paper. Namely, it may be hard to evaluate some aspects because

one does not know what others exactly feel or think. In particular, those in administrative positions spend less time with the players. Estonian football clubs are small, and some members perform several roles within the club and spend a lot of time together. Consequently, we assume that the respondents had a sufficient overview of the matter.

Another issue with our article is with causality. More research is needed in order to discover whether high POE brings high performance or high performance results in high POE, or both. Finally, our article does not take into account other aspects influencing the performance of football clubs, such as financial means, level of coaching, etc. Concentrating on only one aspect does not give a well-rounded overview of the situation. As Muñoz and Solanellas (2023) highlighted, there are many possible dimensions to performance and also indicators that reflect these dimensions. In our research the differences in POE between higher and lower performing clubs were rather small, which implies that there are other important aspects not covered in our analysis. Naturally, POE is not the only aspect that may affect effort, and consequently performance, as illustrated in Figure 1. Furthermore, more elaborate analysis is needed here to cover a greater range of individual, group and organisational level factors that influence the effort of organisational members.

Ethics approval and informed consent

The study is non-interventional, completely anonymous and, according to Estonian laws, ethical approval is not required.

Competing interests

The authors have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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