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## EFFICIENCY EVALUATION IN SPORTS CLUBS

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### Abstract

#### BACKGROUND AND MOTIVATION

Efficiency measurement plays an important role for both for-profit businesses and nonprofit organisations (NPOs). It is of great importance for NPOs to prove effective and efficient work as they heavily rely on external financing. Potential donors and public institutions oftentimes consider efficiency as a criterion when deciding about donations. Businesses frequently use accounting-based ratio metrics to determine their efficiency. But these measures fail to represent the long-term influence of NPOs and are thus inappropriate to evaluate their efficiency. Moreover, the success of NPOs is commonly understood as a multidimensional construct taking into account financial goals and mission-related goals (Helmig, Ingerfurth, & Pinz, 2013), which complicates the use of simple ratio metrics even further. Thus, other indicators have to be considered.

German sports clubs are usually organised as nonprofit member-based organisations and thus belong to the Third Sector. However, there are some clubs in professional sports that operate as for-profit organisations. Additionally, formal collaborations between various sports organisations can be observed. Therefore, sports organisations often comprise simultaneously both nonprofit and for-profit objectives. Consequently, an enormous different set of strategic decisions must be taken.

Accompanied by this, sports clubs are facing several challenges like scarcity in infrastructure resources and difficulties recruiting and retaining volunteers who want to commit themselves to the organisation in the long run (Wicker & Breuer, 2011). Given these developments sports clubs are more than ever forced to use their resources available in an efficient way to reach their financial and non-financial goals. Because of the multidimensionality of goals, it is questionable how their efficiency can be evaluated in an appropriate way. Thus, our research aims at finding comprehensive measures to evaluate the efficiency of sports clubs and derive management implications for the organisations for

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efficiency improvements.

#### METHODOLOGY

We conduct a Data Envelopment Analysis (DEA), a method that takes into account several input and output factors simultaneously. Thereby, we consider the fact that the success of sports clubs is composed of several factors. DEA is a deterministic, non-parametric approach to determine the relative efficiency of comparable organisations developed by Charnes, Cooper, and Rhodes (1978). As a result of DEA each organisation is assigned a value between 0 and 1 indicating its efficiency compared to the other organisations under consideration. The method has been used in various contexts including sports.

We use existing data from professional German football clubs and determine the clubs' relative efficiency values. Due to a regulation that is unique in European football, the clubs playing in Bundesliga are partly organised as nonprofits while others are for-profit businesses (Franck, 2010). Therefore, within this study we compare the efficiency of two different organisational forms. Based on existing studies applying DEA to sports in general and to football in particular (e. g. Haas, Kocher, & Sutter, 2004) we identify relevant input and output factors we use in our analysis.

#### RESULTS AND DISCUSSION

The application of DEA shows efficiency differences between the examined football clubs. We identify sports clubs that are more efficient in financial and non-financial indicators than others, even though the clubs are playing in the same league. On the other hand, the results do not show any differences between the efficiency of for-profit and nonprofit football clubs. We detect that clubs that spun off their professional football activities into commercial companies are not more efficient than clubs organised as nonprofit member-based organisations. Overall, the results of DEA give some meaningful insights into the efficient use of resources in sports clubs. First, the study shows that the often discussed and several times conducted change of the legal form has not necessarily an effect of the efficiency of a sports club. Second, we identify comprehensive measurement indicators for efficiency in the complex organisation structure of a sports club.

As efficiency differences can be observed future research can use these indicators to measure the efficiency of non-professional sports clubs. Most of these sports clubs are nonprofit organisations. Therefore, an efficiency comparison between professional and non-professional nonprofit sports clubs is consequential.

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