COST-BENEFIT ANALYSIS AS THE MOST APPROPRIATE METHOD FOR ESTIMATION OF CORPORATE FINANCIAL SUPPORT TO SPORTS CLUBS

Vladimir Bukvič
GEA College,
Faculty of Entrepreneurship,
Slovenia
Vladimir.bukvic@gea-college.si

Abstract

As in the business world where practically every large investment project decision is supposed to undergo a preliminary economic justification procedure, other fields' investment decisions must also be taken into consideration. The sponsoring of sport events or sports clubs all through the year by companies in the private sector is one of such investment decisions. It would be reasonable and justifiable for such investments (financial support to sports clubs) to be assessed from an economic perspective as well. For assessing and measuring such benefits, an appropriate method called the cost-benefit analysis can be used. The purpose of this paper is firstly, to briefly present the theoretical frame of this technique based on a literature review, especially in the field of organizing and funding sports events, and secondly, to apply this cost-benefit analysis empirically to a particular case. A company X and its sports club (they wish to remain anonymous) have been chosen. The data applied in this case is real. For this particular case, the author states two research hypotheses, one regarding the economic justification of investments like sponsoring sports club, and one regarding the usefulness of the cost-benefit analysis as an appropriate tool for such decision making. In the end, the major findings from the empirical case are summarized and some new starting-points for further research in this field are given as well.

*Corresponding Author

Key Words

Cost benefit analysis; opportunity cost; net present value; social responsibility; sponsoring sports club.

INTRODUCTION

Recently, the media has been, more and more frequently, discussing a topic related to the financing of the organization of sports events at various levels, for example, from a local community supporting the competitions of its sports association (club) to events reaching as far as the Olympics. For the organization of the Olympic Games this year in Rio de Janeiro, the country can expect to pay more than 10 billion euros (SiolNET, 2016).

This raises the question as to whether the funds invested and those that fund such events (matches) are reimbursed and, if so, in what form. What kind of benefits do this funding bring specifically to sponsors, donors, and those who devote their funds to such events in the form of subsidies and loans or even as grants from local communities?

We even have a few examples where the management of a firm was accused of causing material damage to their companies by financing sport. Thus, in a larger business system, there was a change of management, which, together with the owners of the public limited company, even initiated a lawsuit against the former administration for damaging the company due to years of financing (credited) its sports club.

As in the business world where the economic viability of investment decisions is assessed, in other areas where large business systems, in the capacity of carrying out the role of social responsibility, materially support various societies in the fields of sport, culture, art and other activities, it would truly be right and it is fair for sponsors and other stakeholders involved in financing various sports events (competitions) to try in advance to evaluate the effects and the benefits of such investments. Even if they are lower than the costs, it is right that the bearers of such decisions, if these decisions are consciously accepted, are at least roughly familiar with them.

Benefits can be direct and also measurable, but the majority of them are virtually impossible to evaluate. Since we have already mentioned the Olympics, then we can state, at this point, that only the summer Olympics organized in 1984 in Los Angeles, USA, brought profits to the organizers, due to the fact that these games were organized at the available sports facilities and it was not necessary to invest much in the construction of this particular type of infrastructure. What about sports clubs here? Until they advance and fall into the European league, which results in a relatively higher revenue, these clubs can only survive if they have a chief sponsor as the proceeds from tickets sold, sponsorship and donations by smaller organizations and modest grants from the local communities are by no means sufficient to ensure a club's operation and survival.

In theory, the method of cost-benefit analysis (German: Kosten und Nutzen Analyse) is available for estimation and the measurement of such benefits. The purpose of this paper is first to briefly present the theoretical framework of this method on the basis of a review of scientific literature and then use it in the empirical part as a tool and technique for assessing the economic viability of financing the selected sports club by company X. Although the company and its club in this article are not named, their data is real.

In this paper, we will also present the so-called process model of sponsoring companies/organizations of certain sporting events and competitions that have become established in the global sports world. Several authors were involved in the design of this model. In the conclusion, we will summarize the main findings from the case in the empirical part and provide some starting points for further research in this field.

COST-BENEFIT ANALYSIS

A cost-benefit genesis, analysis and purpose

A cost-benefit analysis is a systematic approach to assessing the strengths and weaknesses of various alternatives that satisfy the transactions, activities, or functional requirements of business entities. This is a technique that is used to identify options that provide the best approach to assess the benefits of work, time and cost savings in practice. The cost-benefit analysis is also a systematic process for calculating and comparing the benefits and costs of a project. The cost-benefit relationship is presented graphically in Figure 1.

Broadly speaking, the cost-benefit analysis has two purposes:
- to determine if an investment decision is justified and feasible,
- to provide a basis for the comparison of projects; this includes a comparison of all the expected costs of each option with regard to all the expected benefits to see if the benefits are greater than the costs and by what amount, as shown in Figure 2.

In the cost-benefit analysis, the benefits and costs are expressed in monetary value and are adjusted to the time value of money, so that all flows of benefits and flows of costs are expressed (shown) on a common basis and expressed in terms of the net present value.

Figure 1: Cost-benefit ratio

Source: Wikipedia.

In the cost-benefit analysis, the benefits and costs are expressed in monetary value and are adjusted to the time value of money, so that all flows of benefits and flows of costs are expressed (shown) on a common basis and expressed in terms of the net present value.

**Figure 2:** Which side will the scale incline towards?

Source: Wikipedia.

The cost-benefit analysis is closely connected to, but a bit different from the cost-effectivness analysis, cost-utility analysis, risk-benefit analysis, economic impact analysis, fiscal impact analysis, and social return on investment analysis. In these analyzes, we often encounter the concept of corporate social responsibility, which focuses on the contribution of companies to the sustainable development of the country, area, and world. Businesses can have a significant impact on the natural and social environment by acting directly or through the use of their products and services. Impact also implies responsibility and consequently the socially responsible operation of the company is also given such importance on the path to sustainability (Vezjak, 2015, 42). A basically sustainable (socially responsible) business involves taking care of the economic, social and environmental dimension of operations. Therefore, we can speak of a triple result of the business, which is illustrated schematically in Figure 3.

The cost-benefit analysis is often used by the state and other organizations in the private business sector to assess the desirability of concrete actions or projects. This is an analysis of the expected balance (balancing) of benefits and costs including alternatives that have not been implemented and the status quo. The cost-benefit analysis seeks to predict if the benefits of a particular policy (action) are greater than the costs and by how much with regard to other alternatives. An accurate cost-benefit analysis principally identifies choices that increase welfare from the point of view of benefits. It should be noted, however, that an analyst using the cost-benefit analysis has to acknowledge that it is very difficult to make a full estimate of all current and future costs and benefits, and while the cost-benefit analysis can offer a good estimate of the best alternative, perfection in terms of a guarantee of economic efficiency and social well-being is not ensured.

Figure 3: Triple aspect of corporate social responsibility through a cross-section of sustainable development
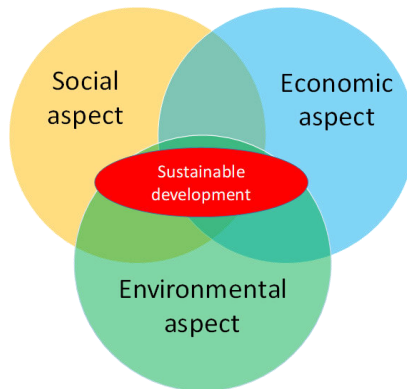
Source: Adapted by Vezjak (2015).

In the theoretical framework of this paper, let us briefly look at the difference between private (business) costs, benefits and social (general) costs and benefits. This difference has been illustrated by a simple diagram in Figure 4.

Figure 4: Venn diagram showing the display of private (business) and social (general) costs and benefits
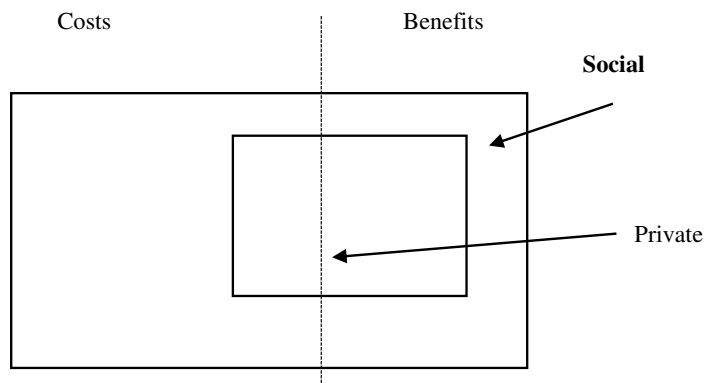
Source: Adapted by Dewhurstu (1972).

Although private (business) benefits are greater than private (business) costs, the overall social situation is completely the opposite. If we want to maximize the social benefits in a socioeconomic environment that is subject to free market conditions, which is not a realistic assumption, we ask ourselves how we can achieve this. There is no case that the private business sector would act entirely in the public interest and in line with the legislation, of course. Therefore, the state intervenes (interferes) in different ways. Professor Pigou's solution (1932) is quite simple. If these additional

social costs, called externalities, due to their being outside the private sector, outweigh the social benefits, then the medicine is in the taxation of the private sector. If this theory holds, then the private sector would receive subsidies from the state. All this is, of course, an attempt to maximize social benefits, that is, not by the state interfering with the economy, but by using economic measures (Dewhurst, 1972). However, this already exceeds the purpose of this article.

The cost-benefit analysis includes the following steps:
- indicating alternative projects,
- indicating stakeholders (stakeholders),
- choosing criteria and measuring all cost and benefit elements,
- forecasting the cost and benefit outcome for the selected time period,
- converting all costs and benefits into a common monetary currency,
- using a discount rate,
- calculating the net present value (NPV) of different project options,
- performing a sensitivity analysis,
- taking the recommended choice.

Valuation

The cost-benefit analysis attempts to measure the positive or negative effects of the project, which may include:
- effects for users and stakeholders,
- effects for non-users and non-stakeholders,
- externalities (external damage),
- option value or other social benefits.

A similar breakdown is used in the environmental analysis of the entire economic value. Costs and benefits may vary. The financial costs are supposed to be most thoroughly presented in the cost-benefit analysis due to relatively sufficient market data. The net benefits of a project may include cost savings or public willingness to receive compensation (the public should have the right to benefit from the policy measure taken) to change the welfare resulting in the government action taken. The guiding principle in valuing the benefits is to list all of the categories or parties affected by the intervention (measure, investment decision), which then gives these categories or parties (positive or negative) values, usually expressed in cash.

Reviews and market behavior are often used to assess the policy (measure) related compensation. Those who participate in such reviews as respondents are encouraged not to report on their true preferences and only market behavior does not provide information on important non-market effects on welfare.

One of controversial issues is the valuation of human life, when, for example, we valuate safety measures or medicines that save lives.

Sometimes we can avoid this by using a related technique of cost-efficiency analysis, whereby benefits are expressed in non-monetary units, such as the quality adjusted life-year (QALY). For example, road safety can be measured in life-saving costs without formally calculating the value of life. Such non-monetary criteria have a limited applicability for valuating policies (measures) with quite different outcomes. In addition, many other benefits can arise from such policies and measures, such as the cost of a saved life that can lead to a much different ranking of alternatives as is the case in a traditional cost-benefit analysis.

As another example of the cost-efficiency analysis, we can provide an example related to the valuation of human health. With efficiency, we understand how well resources are used / exploited to achieve the intended result. Efficiency always improves when the resources used to generate a given result are diminished. Although economists usually (typically) treat efficacy and quality as two separate concepts, many arguments are now being made defending the idea that their separation in health is not easy or even sensible. As inefficient medical treatment drains more resources than necessary, it is wasteful and spendthrift. Treatment which is wasteful is deficient, incomplete and therefore of a lower quality regardless of how good it is in other respects or, as the Donabedian (1988) says, "wasteful care is either directly harmful to health or is harmful by displacing more useful care". From the point of view of the definition of the quality of treatment, the importance of responding to patient preferences in terms of treatment quality has become increasingly recognized today, for example, by Donabedian (2003) under the heading "acceptability" and by the Institute of Health as "respect for patient's values, preferences and expressed needs" (IOM 2001). The cost-efficiency of a specific health service, for example, surgical procedures, can be determined by how much benefit this treatment brings at a certain extent of expenditure, which is typically measured in improvements in the health status. In general, when the amounts spent on the provision of services under certain conditions increase, the yields begin to decline; every additional unit of expenditure brings a smaller amount of benefits until we reach a point where no further benefit is gained by increasing the inputs for treatment (Donabedian, Wheeler and Wyszewianski, 1982). The idea that resources should be used up to the extent that they continue to bring benefits was adopted as a "maximalist aspect" of the quality of treatment. In this respect, the elements can be consumed as long as there are benefits, regardless of their size. As an alternative to this maximalist idea, the idea of an "optimal aspect" developed, which states that spending should stop before the point where additional benefits are too small to be worth the extra cost (Donabedian, 1988).

Another controversy that we encounter in the cost-benefit analysis is the valuation of the environment, which, in the 21st century, is typically rated by valuating ecosystem services for humans such as air and water pollution. Money values can also be attributed to other immeasurable (intangible) effects, such as brand names, market penetration or the introduction of a long-term strategy of a company.

Time dimension and discounting

The cost-benefit analysis attempts to classify all relevant costs and benefits on a common temporal footing using the time value of money calculations. This is done by converting the future expected streams of costs and benefits into a present value amount using a discount rate.

The choice of a discount rate is subjective. Lower discount rates valuate future flows in the same way as current ones. Higher discount rates (market rates of return) reflect the fact that we value the money we get today more than the money we receive tomorrow. The choice makes a big difference in the valuation of interventions (measures, investment decisions) with long-term effects. One of the topics is the equity premium puzzle, in which long-term returns on equity can be much larger than they should be. If so, then market rates of return should not be used to determine the discount rate, as they would have the effect of underestimating the distant future. The above-mentioned puzzle concerning the amount of the equity premium refers to the phenomenon that the observed return on equity over the past century has been much higher than the return on government bonds (Mehra and Prescott, 1985). The procedure for calculating the risk premium and the selection of data for its calculation are very subjective and it is generally assumed that this premium moves between 3 and 7% in the long run. Dimson and researchers (2006) calculated a premium of 3 - 3.5% based on the geometric mean for the global capital market in the period from 1900 to 2005.

PRESENTATION OF THE PROCESS MODEL OF SPONSORING SPORTS CLUBS

In this chapter, we will first summarize the schematic representation of all the possible sources of funding for sports clubs provided by Allen and the researchers (2010). The acquisition of financial resources, shown in Figure 5, also includes crediting sports clubs, an example of the X Company and its club detailed in the empirical part of this paper. In Figure 6 we will present a process model of sponsoring sporting events, which is widely accepted and established in the world.

In theory, there have been quite a few attempts on how to valuate corporate sponsorships (Fortunato, 2013). The return on investment (ROI) is only one criterion. Some authors (Maestas, 2009; O'Reilly and Madill, 2009; Savary, 2008; Watt, 2010) advocate sponsorship valuations with the Return on Objective (Shorter ROO) indicator. According to them, ROO serves as an alternative to the traditional ROI (return on investment) and tries to measure the contribution with the number of units sold by a particular marketing program. Instead of exerting pressure on marketers to focus on immediate sales as a benchmark, ROO allows them to count purchasers at each stage of the sales process (Maestas et al., 2009). Savary (2008) explains that this approach, ROO measurement, valuates the shift of customers from the mere knowledge of the trademark to the concrete use of it, or even to advocating

and promoting the trademark to others. Similarly Maestas (2009) identifies individual elements of the ROO indicator. These elements are often measurable and include, for example, awareness of the seller's trademark, customer satisfaction and customer intentions. Maestas also points out that companies should carry out a survey before accepting a sponsorship decision in order to create baseline values for measurement and later for comparing impact during sponsorship.

USING THE COST-BENEFIT ANALYSIS ON A PRACTICAL CASE

In this paper, we have chosen a concrete example of a large joint stock company in the private sector, which wishes to remain anonymous. We will refer to it as the X Company and with other subsidiaries, it forms the X business system. At the beginning of the last decade, the company founded a sports club, the name of which we will not mention in this article. We will simply refer to it as the club. Let us state that it is a sporting genre that relates to a team ball game. As a timeframe, we define the period as being from 2003 to 2011. During this period, the X Company financially supported its club in the form of the approval of short-term loans, and later, after 2011, also in the form of donations, but the latter are not subject to discussion in this paper.

Figure 5: Sources of revenue from the performance of sports events (matches)
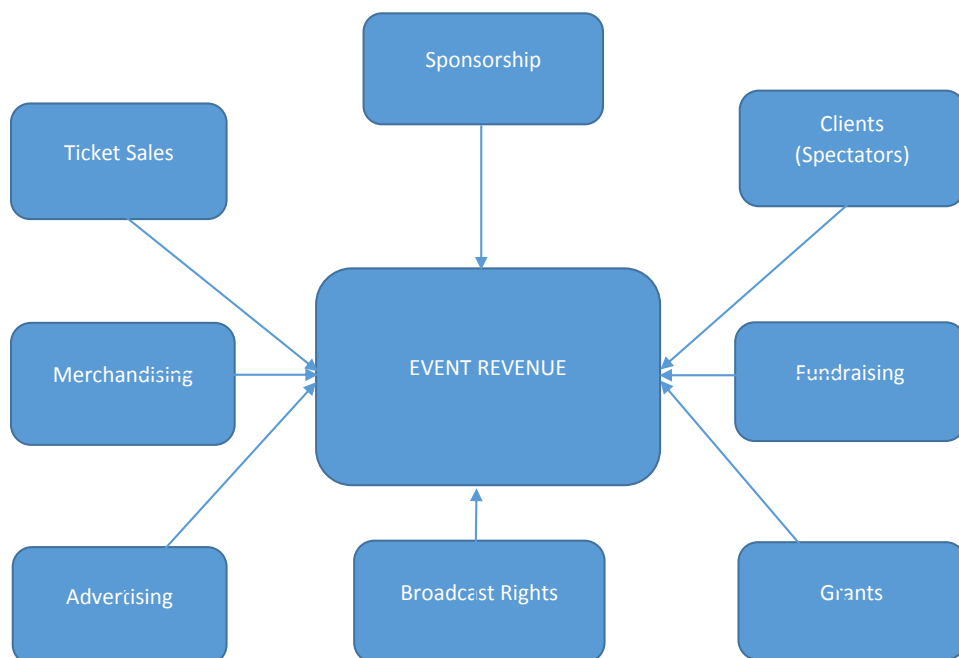
Source: Adapted from Allen et al. (2010).

Using the cost-benefit analysis, in this article, we tried to determine in the selected case, whether the provision of X Company's financial assistance to its sports club is economically justified for the X Company, whether X Company has benefited from this financial support and whether those benefits for the X Company were higher than the costs, or given short-term loans to its club.

Assessing the benefits of providing financial support to the sports club

Showing the provision of financial support of the X Company to its club

Table 1 shows how much the X Company invested in crediting its club in the period from 2003 to 2011.

Table 1: Crediting of the club by the X Company in the years 2003-2011 in 000 €

Year	Short-term loans given
2003	600
2004	800
2005	1,000
2006	1,200
2007	1,400
2008	1,500
2009	1,783
2010	1,703
2011	1,853

Source: Credit agreements concluded between the X Company and its club from 2003 to 2011.

Here, we will briefly explain why the X company chose a loan as the form of financial support for its club as opposed to other forms such as donations, subsidies, sponsorships. Lending is more favorable to the company than the donation, since the realized benefits from the financing of the club enable the write-off of loans, which is, in terms of influencing the reported profit or loss, the same as the donation, subsidy or payment of advertising space. If the club is in the growth stage and depends on credit, the interruption of such sources of funding affects its existence as players can no longer be sold. When deciding on crediting, it is necessary to take into account the specificity of the club, which is not identical to the financing of companies, as here we consider the life cycle, the ability to grow, the ability to generate revenue, the value of players. In doing so, classical financial strength and credit rating indicators, which are calculated on the basis of accounting data, do not have a prominent role in club financing.

**A comparison of the of the X Company's growth trends in operating revenue and the progress of its club**

Table 2 shows the upward trend of the X Company's operating revenue, its EBITDA and net profit in the period from 2003 to 2011, which is also presented graphically in Figure 7.

Table 2: Comparison of the X Company's performance trend with the trend of its club's progress in the 2003-2011 period (data is in 000 €)

Year	Operating Revenue	EBITDA	Net Profit	Place in SLO League	Progress of the Club
2003	**169,522**	20,064	**6,120**	3	
2004	**208,949**	25,846	**5,813**	5	
2005	**287,426**	25,685	**5,234**	6	Qualifications in the EHF Cup
2006	**315,213**	21,907	**5,928**	8	
2007	**426,897**	24,579	**3,432**	10	3rd place in the national championship
2008	**400,338**	29,952	**3,485**	11	Semifinals in the EHF Cup; Qualifications in the Champions League; Winning the Slovenia Cup
2009	**320,323**	25,690	**2,007**	11	Winning the Slovenian Supercup; Second win of the Slovenian Cup; 2nd place in the national championship; Qualifications in the Cup Winner's Cup
2010	**362,015**	28,846	**2,392**	10	
2011	**412,996**	27,456	**3,666**	12	1st place in the national championship; Winning cup trophy; Winning the EHF Cup

Source: The X Company's annual reports for the 2003-2011 period and the club's annual reports for the 2003-2011 period.

Figure 7: The X Company's movement of operating revenues, EBTIDA and net profit in the 2003-2011 period
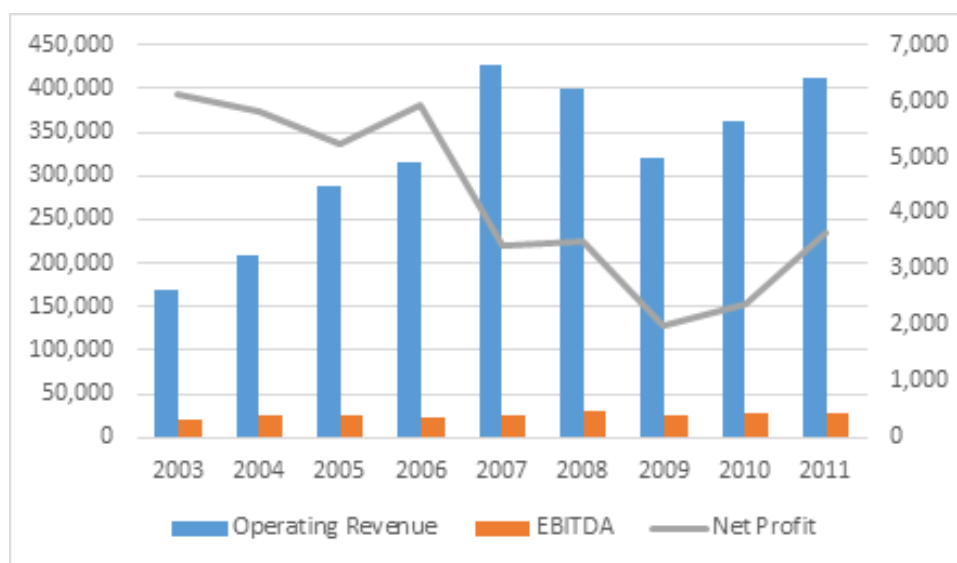
Source: Table 2.

It should be emphasized that along with the growth in revenue (the increase in the X business system) and the performance of the X Company (see EBITDA and net profit), the club also advanced.

The 1994/95 season was a turning point for the club, since it was the first year in which the club had a complete drive of younger selections, which soon began to produce visible achievements at the state level. That same year, the member team advanced to the 2nd National League. In the 1999/2000 season, after successfully finishing the qualifications, the club qualified in the 1st B State League.

This was a period of a dynamic, organic growth, an increase in the assets of the X business system (in 2003, the value of the X Company's assets was 203 € million, and in 2011 about 470 million €), expansion of the X business system to south-eastern Europe (acquisition of new production capacities).

This five-year period from 1995 to 2000 can be labelled as a period of restoration for the X business system (the mother company of the X Company and its daughters), since it was on the verge of collapse in 1996. At that time, the new administration began a forced settlement over the X business system, which was successfully completed in 2000. Along with the completion of the compulsory settlement project, the new management then intensively worked towards increasing the revenues and acquiring new deals with the existing customers. At the same time, it began to expand the gamma of new customers from 2000 onwards and operating revenues began to rise steeply. This was a period of dynamic, organic growth, an increase in the assets of the X business system (in 2003, the value of the assets of the X Company was 2003 € million and in 2011 about 470 million €) and the expansion of the X business system to south-eastern Europe

(acquisition of new production capacities). The X business system and, within its framework, the X Company (as a mother joint-stock company) became increasingly recognizable as an important player in the industry. With its products, it has become Europe's leading manufacturer and developer of key European OEMs. Its reputation grew during this period.

It is therefore quite understandable that the X Company as a big business system had to take care of the so-called social responsibility in the sense that it also does something for the environment and the local community. At the time, the X Company's new management decided that it would materially support the development of a sports category, a team ball game in the region.

The X Company entered the scene as a longtime sponsor of its club in 2000, when, as mentioned, the club was ranked in the 1st B State League. After only two seasons of playing in the 1st B State League, the club progressed to the elite 1st National State League in the 2001-2004 season and started achieving more visible success soon afterwards. In the 2004/05 season, the members of the team played in the EHF Cup and, in the 2007/08 season, they successfully played in the semi-finals of this European competition. In the national championship, they won 3rd place in the 2006/07 season and, in the 2007/08 season, they won second place for the first time in the European Champions League. In the 2007/08 season, they won the competition for the Slovenian Cup for the first time in the history of the club. In the 2008/09 season, they won the Slovenian Supercup, won the Slovenian Cup for the second time, and won second place in the national championship, thus qualifying for the Winner's Cup. Indeed, the most successful season for the club was the 2010/2011 season, where the home team won both the championship and cup trophy in addition to winning the EHF Cup.

If in Table 2 above we compare the growth of operating revenue and business performance and the enhancement of the X Company's image in the European industry with the advancement of the club on the scale of excellent clubs in a particular sport category, a team's ball game, we can conclude that during this time there was a strong correlation between the two trends. This has also been proven statistically by calculating the determination coefficient and by regression. In order to calculate these statistical indicators, the promotion of the club should also be quantified, so that we have two time series of numerical variables, the first time series of operating revenue expressed in euros and another time series expressed with winning a place in the Slovenian first league. In this case, we attribute the highest number of points achieved to first place. In this period, the Slovenian First League had 12 clubs. Since the X Company's club had won first place (in 2011), we have 12 points for that year. In 2010, they reached third place, for which we assigned 10 points, etc. First place thus represents 12 points and last place recieves1 point.

In Table 3, we illustrate two time series for two numerical variables, i.e. operating revenue and place won in the Slovenian First League.

Table 3: The ratios of X's operating revenue and the progress of its club in the period from 2003 to 2011

Year	Operating revenue in 000 €	Winning a place in the Slovenian First League
2003	169.522	3
2004	208.949	5
2005	287.426	6
2006	315.213	8
2007	426.897	10
2008	400.338	11
2009	320.323	11
2010	362.015	10
2011	412.996	12

Source: Annual Reports of the X Company and Annual Report of the X Company's club during the 2003-2011 period.

Determining the dependence (correlation) between the growth of the X Company's operating revenue and the progress of its sports club

Using the Excel statistics program (Anova), we first calculated the determination coefficient. This amounts to R = 0.837 and indicates that there is a very high (statistically significant) relationship visible - the correlation between the growth of the X Company's operating revenue and the progress of its club.

Calculation of regressional coefficients

- *Summary output*

Element	Value
Adjusted R Square	0,813982087
Multiple R	0,915005096
Observations	9
R Square	0,837234326
Standard Error	38664,48855

- *Anova*

Element	df	SS	MS	F	Significance F
Regression	1	53827819182	53827819182	3600661089	0,000541961
Residual	7	10464598722	1494942675		
Total	8	64292417904			

Element	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95,0%	Upper 95,0%
Intercept	101112,8 068	39101,389 2	2,58 59	0,036 1	8652,71 34	19357 2,9	8652,7 13	19357 2,9
X Variable 1	26232,41 76	4371,6682	6,00 05	0,000 5	15895,0 649	36569, 77	15895, 06	36569, 77

The above calculated R is the correlation coefficient for simple regression of the X1 variable (operating revenue) and the dependent variable (progress of the X club). The club's progress was dependent on the growth of the X Company's operating revenue. This regression coefficient reflects the degree of associativity and is equal to the bivariate correlation, since the equation has only one unknown. R2 is the correlation coefficient (= 0.84), also called the determining coefficient. Its value indicates the percentage of the total variance of the dependent variable, which is explained by a regression model consisting of the independent variable X1.

The t value of the variables in the equation, as shown above, measures the importance of the partial correlation of the variable, which is reflected in the regression coefficient. It tells whether we can claim that at the given standard error, the coefficient is not zero. F values have an even greater weight at this level (Hair, Black, Babin and Anderson, 2010, 214). In the given case, t is the value (obtained by dividing the regression coefficient with a standard error) of 6,000, which is statistically significant at the 0,000 level. It gives us a high degree of certainty that the coefficient is not zero and can be assessed (determined) as an indicator for the X club's progress.

From the above indicators, we can also conclude, among other things, that the financial support of the club has generated mutual benefit. With such support, the club was able to quickly and easily advance to the rankings of the best clubs both at home and in Europe. In the opposite direction, the club's visibility, first at home, and then increasingly on the wider European scene, built up a reputation and wider brand name recognition of the X Company in Europe. Its recognizability and reputation were strengthened through advertisements (billboards along sports fields in large sports halls in large European cities, sports jerseys of players with commercial names, TV broadcasts, etc.). These are the so-called intangible benefits that are so hard to measure. Indirectly, these benefits are definitely repercussed in an increased operating revenue. With its established brand name and also as a socially responsible company, the demonstrated and, in the wider public (in Europe), exemplified financial support provided to its club, the X Company became a trusted business partner in the eyes of renowned customers. Relations with these customers have grown into partnerships, which is much more than pure buy-sales relationships. Often, these business partners, together with the X Company's marketers, participated in matches. This was also an opportunity to strengthen business partnerships in an informal, even more personal way. This has also turned out to be a very effective and successful way of marketing. In this way, by increasing the customers' affection for the company over the years, the X Company acquired new business deals and new orders. In addition to the results of the past

business, its vision, strategy, values and mission, the X Company always presented itself to new customers as a socially responsible company and, in this context, its sports club with enviable achievements at home and abroad. Thus, both existing and new customers accepted the X Company (and thus the X business system) comprehensively as their competitive supplier, both in terms of the quality and value of its products, JIT (just-in-time) deliveries, and also as a socially responsible company committed to the principle of business excellence. According to the EFQM excellence model (MIRS, 2013), these include the following: Adding Value for Customers, Creating a Sustainable Future, Developing Organisational Capability, Harnessing Creativity and Innovation, Leading with Vision, Inspiration and Integrity, Managing with Agility, Succeeding through the Talent of People and Sustaining Outstanding Results.

  Such excellent organizations achieve and sustainably maintain excellent levels of business that meet or exceed the expectations of all their stakeholders. The X business system was on the right track for business excellence in the mentioned period.

An attempt to evaluate and measure the economic effects and benefits for the X Company after providing financial support to its sports club

The question arises as to how to directly capture and measure the effects on the basis of the above justification and presented data, ie, benefits from such cooperation, or how to pinpoint and connect these benefits (higher operating revenue, higher EBITDA and higher net profit) as much as possible with the investment in the form of loans granted by the X Company to its club. Or otherwise, if it were not for this project (financial support for the club), to what extent would the operating revenue of the X Company be smaller and the operating result worse. In a direct way, this is practically impossible to measure. It also concerns the so called hidden benefits, which are not visible anywhere and are in no way booked in the financial statements. Of course, all of this is hidden or covered up by the brand name of the X Company. However, we could make an estimate, a rather more pessimistic one, based on the management's and marketer's good knowledge of the situation at that time.

  In order to better understand and support the definition of the benefits from the X Company's financial support to its club, what it means to get new business and new orders from the customers, we can cite the following example. Later, in 2012 and 2013, when the X Company was at the point when it was necessary, due to the excessive indebtedness of the company among other things, to increase its share capital (recapitalization) and to make the company financially stable and sustainable in the long run, customers were prepared to approve as much as tens of millions of euros of new projects for the X Company, but assuming that, in addition to banks that had already signed a restructuring agreement, the Master Restructuring Agreement (MRA), its owners would also recapitalize the company (€ 20 million). Unfortunately, this did not happen at the time (it happened later, but sadly it was already too late) and, at that time, the X Company did not get

any new orders from reputable customers, as is still the case today. On the contrary, some projects have been transferred to other suppliers in the industry. With this example, we just wanted to illustrate what it means to be a financially stable, economically sound and trustworthy business partner for such renowned customers and this is precisely what the X Company was during that period when it also financially supported its sports club.

Estimation and measurement of the opportunity loss of profit for the X Company

Assuming (an assessment made by competent persons in the aforementioned period, i.e. the broader leadership of the X Company, which closely and directly cooperated with the then reputable customers) that we can confidently assign at least one tenth (a pessimistic estimate!) of growth in operating revenue to the role of externally demonstrated social responsibility in the form of crediting its club, then in the case that this support had not been offered, the damage would have been expressed with much less revenue (loss of revenue or the so-called opportunity loss of revenue). If we place alongside this hypothetically lost revenue, the accompanying expenditures, we would record a loss of profit for each year as shown in Table 4.

Table 4: Breakdown of operating revenues by 10% if the X Company had not financially supported its club

Year	Business revenue drop by 15%	EBITDA loss by 15%	EC failure by 15%
2003	25.428	3.01	918
2004	31.342	3.877	872
2005	43.114	3.853	785
2006	47.282	3.286	889
2007	64.035	3.687	515
2008	60.051	4.493	523
2009	48.048	3.853	301
2010	54.302	4.327	359
2011	61.949	4.118	550

Source: Table 2.

Assessment and measurement of opportunity costs of work

This is one of the purely economical views on the subject, but it is not the only one. What about the lost jobs or if the entire X business system (the X Company and all its subsidiaries) had not additionally employed new workers because there would be no additional orders? If, due to rough simplifications, it is assumed that, in view of the proportional decrease in

revenues, the number of employees would also be reduced (this is taken into account only in the X Company, although it would also affect its subsidiaries and the impact would be even greater!) and taking into account that these workers, who would not have been employed in the X system, would have to receive the appropriate compensation of € 600 gross per month from the country, then these external damages (externalities) would have been reflected in the benefit calculation as annual cost savings. These are shown by years in Table 5.

Table 5: Calculation of annual cost savings due to potentially lost jobs

Year	Actual number of employees in the X Company	Potentially lost jobs by 10%	Savings on labor costs (state compensation) in € 000
2003	1	100	720
2004	924	92	662
2005	1.058	106	763
2006	1.041	104	749
2007	1.091	109	785
2008	1.077	108	778
2009	1.046	105	756
2010	995	95	684
2011	956	96	691

Source: The X Company's annual reports from 2003 to 2011.

Calculation of the net present value of costs and benefits for the X Company from the provision of financial support for its sports company

Both economic categories, presented above, i.e. loss of operating revenue (opportunity loss of revenue) and savings on the cost of state compensation for job losses are taken into account in the cost-benefit analysis, i.e. in the part of the analysis where the benefits can be expressed in monetary units.

Thus, we now have three time series of economic categories for the 2003-2011 period, expressed in monetary terms, one that illustrates the amount of short-term loans given to the club by the X Company (that is, in line with the cost-benefit analysis as a loss, as the company's annual expenditures), the second one illustrates the loss of net profit (i.e., in line with the cost-benefit analysis as a benefit, as annual cash benefits for the X Company), and the third, which illustrates the annual savings on labor costs as an opportunity cost for the country due to potentially lost jobs. In order to determine whether the benefits of the X Company were greater than the costs (damages due to given loans that were not paid off), the discount method should be used due to the time value of the money. The amounts of individual years are multiplied by discount rates for each year, taking into account the 5%

discount rate as the equity risk premium (see the theoretical starting points above!). This calculation is shown in Table 6, and the final outcome is only schematically illustrated in Figure 8.

Table 6: Calculation of the net present value (NPV) of costs and benefits for the X Company from the financing (crediting) of its club in the period from 2003 to 2011 (data is in € 000)

Year	Short-term loans given	Net profit/loss	Annual savings on operating costs	Discount factor (i = 5%)	Present value 2003 = 100
2003	600	918	720	1	1038
2004	800	872	662	0.95238	699
2005	1000	785	763	0.90703	497
2006	1200	889	749	0.86384	378
2007	1400	515	785	0.8227	-82
2008	1500	523	778	0.78353	-156
2009	1783	301	756	0.74622	-542
2010	1703	359	684	0.71068	-469
2011	1853	550	691	0.67684	-414
				NSV	**949**

Source: Table 1, Table 4 and Table 5.

Figure 8: The balance has moved to the benefit side; these were more than the costs of the X Company in connection with the financing of its sports club
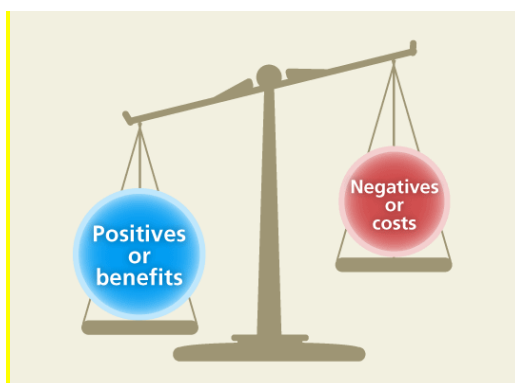
Source: Table 6.

The net present value of costs and benefits, calculated and shown in 2003, is positive, which simply means that the X Company had more benefits from the financing of its club than costs expressed in the given short-term loans. Again, we emphasize that in this case, the benefits should be understood as opportunistic loss of profit and as opportunistic savings on labor costs, which would have burdened the state (social support for the unemployed) if the X Company had not financially supported its club in the region, and thus not

built their own brand name and, consequently, it would have received smaller orders from customers. We have already demonstrated the enormity of the dependence through calculation of the determination coefficient (see above!).

Some other aspects of the benefits resulting from the X Company's provision of financial support to its sports club

In the context of the cost-benefit analysis, the role of the X Company in the development of a sports category, team ball game in the region from a broader social point of view, should also be included. This broader aspect of social responsibility taken by the X Company in the region, that is, the concern for the sustainable development of the sporting genre, team ball games, and more, the concern for young people's involvement in sports activities and, therefore, the responsibility of the X Company in preventing young people from going astray (give in to idleness, drugs, alcohol, crime, etc.) is closely linked to the part of the cost-benefit analysis that highlights the social return on investment analysis.

The younger categories were also successful, as in the 2006/07 season, the cadet and junior team won the title of national champions. In the 2008/09 season, four of the clubs' selections participated at the national championship finals: the junior team became national champions, the D younger boys were second, the A younger boys won third place and the cadets were fourth in the country.

These benefits could also be financially valued, but they would be expressed as cost savings. So the alternative would have been that the X Company's leadership would not have made the decision at the beginning of the previous decade to fundamentally support the development of a sporting genre, the team ball game in the region. This means that then what might be described as external damage (externalities) could have occurred. A certain percentage of young people would have gone astray, which means the occurrence of damages for the individuals (life threatened), the families and the local communities would have ultimately fallen on social welfare and related costs. From the point of view of the theory of cost-benefit analysis presented above, we immediately find ourselves in the field when it comes to assessing an individual's life. So, again, we expose the controversy of this method, the cost-benefit analysis, in terms of the evaluation of human life. Simply put, a human life has no price. For a rough, purely economic assessment (without a social sense), the cost of life insurance that the insurance company should pay out in case of a loss of life could be taken into account. We could estimate the social costs for a certain percentage of the young population that would go astray in terms of treatment and social support for such cases. The economic, social and psychological effects of such deviant phenomena, which would surely have come to pass if they had not been so broadly supported by such sports activity in the region, could have been enormous.

Last, but not least, we could also include the benefits that the municipality and the local community in the region gained with the development of this

sporting category, team ball games. Whenever the matches in the region were played, the sports hall in the municipality was filled full, and the caterers were busy with full bars. In the calculation of the net present value, other benefits could be taken into account, for example, the savings that the X Company had in relation to advertising, when it did not need to finance these services, billboards at fields, TV broadcasts of matches, etc.

CONCLUSION

A cost-benefit analysis can be a very appropriate tool and technique for assessing the economic viability of those economic operators' business decisions whose effects do not show immediately and directly on increasing profits and the value of the assets, but can indirectly affect the performance of the company and provide it with sustainable development, the latter in particular in terms of the company's social responsibility. A socially responsible company is economically successful in the long run, but without detriment to others, employees, partners, and the wider social and natural environment. Does the company, through its management choosing to financially support, for example, a sports club in the local community where the business is based, in any way harm the above-mentioned stakeholders? This is incontrovertible with these costs / expenses - in the case of the X Company, which credited its sports club for a decade, a relatively large amount of cash was earmarked for this purpose in an absolute amount, but if we compare the annual amounts of principals with annual net sales revenues of the X Company, then these shares are very small. However, on the other hand, these amounts, which the X Company renounced during the period considered, gave the X Company a certain benefit, they helped build its brand name and they indirectly increased its market share, which means that the business decision of the company's management was well remunerated. This dependence, or connection between the achieved sales revenue and the progress of the club on the ranking scale, is very strong, as is confirmed by the above-mentioned regression coefficients. In our case, the incremental increase in sales revenue (15%) was due to the consolidation of the reputation of the X brand name and the increased respect for the X Company in the eyes of its customers, although arbitrary, but still rather pessimistic. It relied on the estimation of marketers who directly cooperated with customers and were the only competent to give such an estimation. We estimate that in this part, additional efforts that could be invested in data collection, even in a customer survey, could draw us closer to a more reliable estimate of the economic impact of the decision to fund the club to the benefit of the X Company, expressed in terms of higher revenues from sales, higher EBITDA and higher net profits. It would be advisable to deepen research in this segment in the future, which could be a challenge for those using a cost-benefit analysis for this kind of study.

  If in the assessment of the X Company's benefits that are meant to flow into the company due to the company's financing of its sports club, we include the opportunity costs of labor that could arise and charge the country

(external damage) - in this case, we are speaking of Pigou's social (general) costs - if the X Company did not grow and increase the number of jobs, the positive net present value would speak in favor of such a decision. In both of these cases, the increase in sales revenue, and therefore the net profit, as well as the opportunity costs of work due to potential job losses and we are speaking of a purely economic assessment of such a decision since we have set numerical data on both sides of the balance and quantitatively expressed the result in monetary units taking into account the time value of money (discounting). At this point, we wish to reiterate the idea stated in the introduction that the decision-makers in companies (the management board and the supervisory board), when deciding on the provision of financial support to various companies or as sponsors, donors, creditors, should make an estimate of the anticipated effects and benefits of such investments, even if, as they say, these will be lower than the costs. For this purpose they have a useful tool, a cost-benefit analysis.

In the practical example of the X Company, which financed (credited) its sports club and in the light of the cost-benefit analysis or analysis of the economic impact and social return analysis, the controversy of such analyses was highlighted. The problems that arise with the use of these tools and techniques are, in practice, significant. In many cases, it is virtually impossible to measure the social benefits and benefits in the private sector of the economy, let alone turn these categories into monetary units. The controversy of the cost-benefit analysis comes to the foreground in the case of estimating the value of human lives. This aspect was also shown in the example of the X Company, which, with its financial support and again in the light of social responsibility during the period under consideration, took care that a large part of the young population was actively involved in the development of the selected sports category in the region, thereby, preventing the young population from giving into idleness and going astray (external damage).

In this paper, we deliberately presented all possible sources of revenue from sports events and the process model of sponsoring sporting events, which is widely established in the world. With this, we wanted to present a generally valid framework - the process model, whereby the X Company actively supported a team by lending and thus developed a certain sports discipline in the local community and the region.

The club experienced its end in the season 2012/13, and, in the aftermath of the X sports club, a new association, a new club, was created in 2013. It was formed as a spontaneous reaction by people who simply could not make peace with the fact that everything was simply over; that which had been built up for so many years and in which the X Company planned and systematically invested. The newly born society has thus assumed responsibility for the team and youth teams and thus now builds a new story about the success of this sporting category. This story would not have existed or it would not have started at all if the X Company had not played the role of social responsibility in the presented manner in the mentioned period.

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APPENDIX

Figure 6: Process model of firms sponsorship of regional sport events (matches)
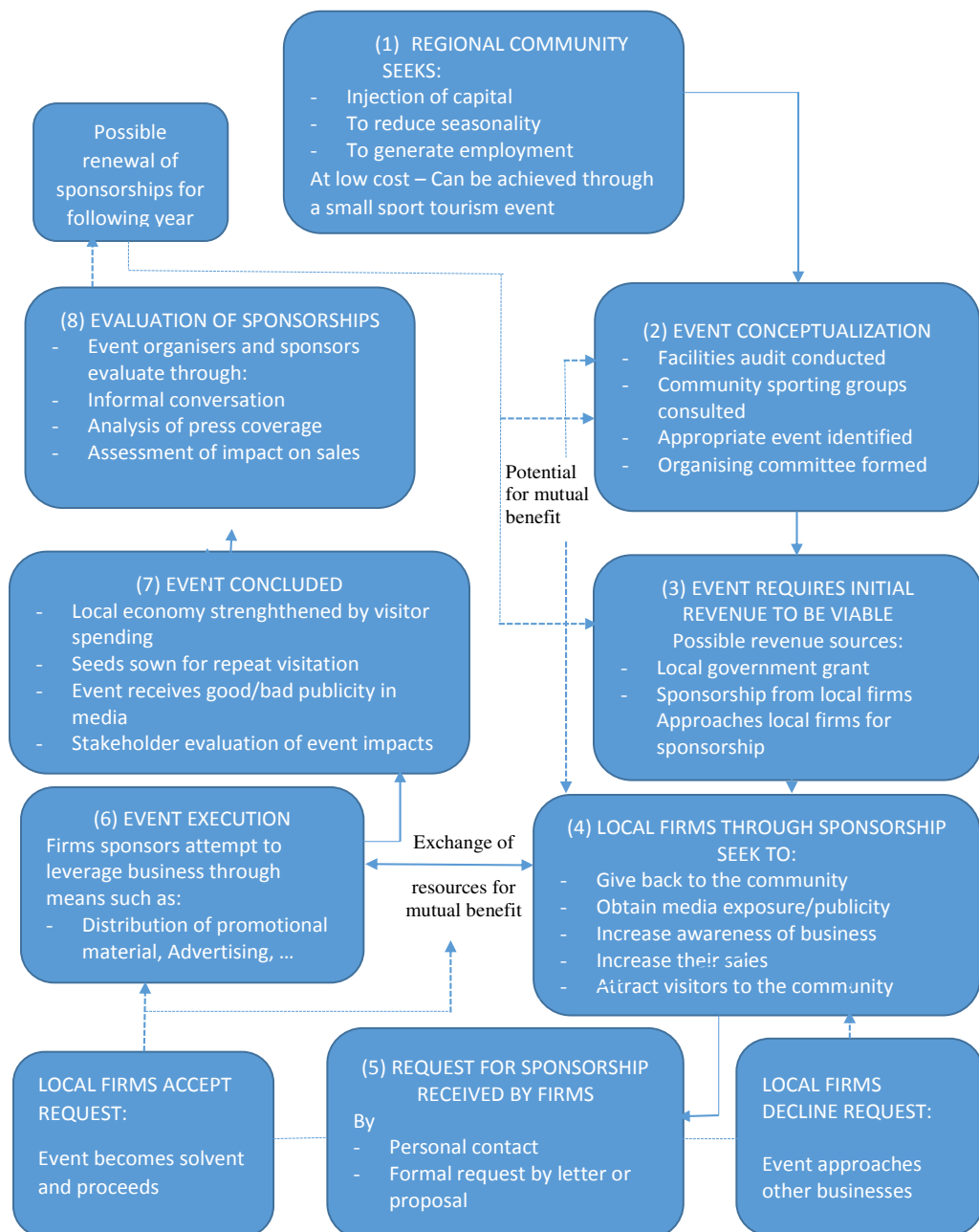
Source: Adapted from Lamont and Dowell (2007, 261)