

THESES OF THE DOCTORAL (PhD) DISSERTATION

THE PLACE AND ROLE OF CSR CONCEPT IN THE SPORT OF ICE HOCKEY

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1. INTRODUCTION OF THE TOPICS AND OBJECTIVE

Corporate Social Responsibility (CSR) has taken off globally because of modern society, although the concept and its history have been around for well over 100 years. Its origins can be traced back to the 1800s, when the economic situation and inadequate working conditions forced companies to restructure their production processes. The same period saw the emergence of 'donation' as we understand it today, as wealthier families set their sights on helping the poorer sections of society (SZLÁVIK, 2009a). In recent decades, the concept has undergone several transformations and developments in its content. In the beginning, different conceptual definitions presented responsible behaviour from the perspective of companies. Its analysis can take on different dimensions depending on the segment of the economic sphere and the type of actors involved. Accordingly, the concept of corporate social responsibility offers different possibilities for interpretation and application.

In today's modern world, sport is an integral part of our everyday lives. The number of people participating in sport is constantly increasing, both actively and passively. Sport has become an unavoidable part of social and economic sectors, as it has a clear added value, for example in education or health (LACZKÓ - RÉTSÁGI, 2015).

As sport has also entered the economic sector, it has become a key driver of social responsibility. Sport is an activity around which a variety of CSR activities can be organized, or sport is practiced because of the activity (GŐSI - BUKTA, 2021). Currently, we know two major aspects of CSR, social and environmental. The sport-specific implementation of CSR, particularly in the case of the sport of ice hockey, remains fragmented and varies in intensity from one geographical region to another.

In the Americas, there are an increasing number of well-structured CSR measures at league and team level every year.

In a European context, it is important to mention the International Ice Hockey Federation (IIHF), which has published its guidelines for 2016-2020 in the field of environmental protection and service to society. Among the European 'hockey nations', the Swedish, Finnish and German federations are the most prominent in this field in Europe.

In the case of Hungarian ice hockey organizations, the level of research in this area is extremely low and there is a lack of complex, empirically based scientific analysis of

domestic CSR practices, their motivational background and their relationship with international trends.

Reflecting this gap, the main objective of my research *was to investigate and systematically explore the role of CSR in North American, European and domestic sporting contexts, with a particular focus on the sport of ice hockey.* My aim was to provide a comprehensive picture of how CSR programs are integrated into the organizational functioning of sports in the US, European and domestic contexts.

My further objectives can be summarized as follows:

C1: Through a systematic review of relevant international and domestic literature, I aimed to provide a theoretical foundation for the place and role of CSR in sport, to identify the interfaces and areas of CSR and sport, and to present the emergence of CSR in ice hockey.

C2: Identify, categorise and define the role of CSR programmes at league and team level in the North American Professional Hockey League (NHL) in support of social and environmental objectives.

C3: To identify and systematically understand the CSR strategies and practices and future plans of European hockey associations.

C4: To understand the position of domestic ice hockey clubs on CSR, to identify the actions already implemented and their role, with particular attention to the motivating factors behind these activities, as well as the financial aspects of the actions and the future plans of the clubs.

C5: To contribute to the development of CSR activities at the federation and member organisation level in the national ice hockey sport through the scientific exploration of international CSR trends, guidelines and best practices in the sport.

In my thesis, I formulated the following basic hypothesis: *The integration and role of the CSR concept in the sport of ice hockey is well defined overseas (especially in North America) and is a central element of corporate strategy, while in Europe it is lagging behind. In European countries, the place and role of CSR is less centralised and primarily*

socially relevant. In the case of Hungary, the use of CSR does not have a strategic approach, but rather takes the form of ad hoc, sporadic initiatives.

In this paper, I explore the validity of further hypotheses:

H1: All teams in the North American Professional Hockey League (NHL) implement a number of consciously planned, structured social and environmental CSR actions, including activities that can be adapted from League guidelines and those based on own initiative. (C2)

H2: The North American Professional Hockey League (NHL) teams' own-initiative CSR activities are correlated with team performance. It can be assumed that mainly the more successful teams have self-developed CSR activities, i.e. that effectiveness has a positive impact on CSR. (C2)

H3: The self-initiated CSR activities of teams in the North American Professional Hockey League (NHL) will be related to the franchise value of the teams. It can be assumed that teams with higher franchise value have self-established CSR activities, i.e. market value has a positive impact on CSR. (C2)

H4: European ice hockey federations currently do not have a comprehensive CSR strategy to guide clubs and help them to consciously engage in CSR. CSR practices are mainly observed in the service of society, but also in a patchwork and often isolated way. (C3)

H5: European ice hockey federations do not have a dedicated budget for CSR programmes. (C3)

H6: There is a link between the turnover of domestic ice hockey associations and their social engagement. It is assumed that mainly clubs with higher turnover have CSR activities, i.e. turnover has a positive impact on CSR. (C4)

H7: There is a relationship between the level of performance of domestic ice hockey clubs and their CSR. It can be assumed that mainly the more successful clubs have CSR activities, i.e., performance positively influences CSR. (C4)

H8: The motivational factors behind the use of CSR measures include economic benefit, association expectations and fan satisfaction. (C4)

H9: Representatives of domestic ice hockey sports organisations with CSR activities statistically demonstrate that they consider the introduction of information and educational programmes on CSR to be more useful, which would promote a more conscious involvement in the application of CSR measures in Hungary. (C4)

2. MATERIAL AND METHODS

The main objective of my research was to understand the place and role of CSR activities in international and domestic sport life, especially in the field of ice hockey. To fulfil my research objectives and to test my hypotheses, I used primary and secondary data and information collection methods. In this chapter, I will present the samples and the methodology used to investigate them by research area.

2.1. Methods and databases used in secondary research

In the secondary, or secondary phase of the research, I developed previously published, scientifically sound and professionally accepted data and information relevant to a deeper understanding of the relationship between sport and corporate social responsibility (CSR). As emphasised by HORNYACSEK (2014), the secondary research method aims not only to collect data, but also to critically process and organise them and synthesise existing knowledge to establish new research questions and directions (HORNYACSEK, 2014).

During the secondary data collection, my primary objective was to explore the national and international (mainly English and German) literature, with a special focus on the application of CSR in sport and its implementation in the sport of ice hockey. To select the literature, I used a structured keyword search (BATES, 2002; CHOWDHURY, 2010) based on search terms such as 'CSR', 'Corporate Social Responsibility', 'Sport CSR', 'Ice Hockey CSR', 'Social Responsibility', 'Environmental Protection' and 'Sustainability in Sport'.

Within this topic, I examined the history, aspects, development, conceptualisation and evolution of different CSR theories. I have paid particular attention to the specificities of CSR activities in the sport sector, to sport-specific aspects of CSR and to international examples of the role of CSR in ice hockey. The theoretical models and practical experiences identified provided the theoretical background for my primary research and contributed to the methodological procedures used (e.g. questionnaire design, professional interviews, selection of statistical analyses).

Within the framework of international examples, I presented the CSR activities of the North American Professional Hockey League (NHL), the International Ice Hockey Federation

(IIHF) and 3 European countries' ice hockey federations (Finland, Sweden, Germany). I interpreted these as examples of international good practice to be followed, which could contribute to the development of CSR strategies in domestic ice hockey sport organisations. I investigated the CSR efforts of these organisations using the tool of document analysis, which involved content analysis of annual reports, CSR reports, strategy documents and programme descriptions available on official websites (LIIGA, 2025; EKA, 2023; DEB, 2017). Document analysis as a method is a widely accepted procedure in the social sciences, which allows for contextualised interpretation of textual data and deeper understanding of organisational practices (BOWEN, 2009).

2.2. NHL Study

2.2.1. Presentation of the sample

The NHL is the most famous hockey league in the world, and the one with the highest level of sportsmanship. It was founded in 1917, with 4 teams competing in its first year: the Montreal Canadians, the Montreal Wanderers, the Ottawa Senators and the Toronto Arenas. Today, 32 teams compete week in, week out.

Table 1 presents NHL regular season results for the 2023-24 season and shows the value of each franchise as ranked by Forbes 2024, with a marker for their ranking in franchise value (NHL, 2025; FORBES, 2024).

Table 1: 2023-24 NHL regular season table with franchise value

	NHL regular season table 2023-24	Franchise value
1	New York Rangers	3.5 billion USD (2)
2	Dallas Stars	2 billion USD (12)
3	Carolina Hurricanes	1.25 billion USD (27)
4	Winnipeg Jets	1.05 billion USD (31)
5	Florida Panthers	1.4 billion USD (24)
6	Vancouver Canucks	1.95 billion USD (13)
7	Boston Bruins	2.7 billion USD (5)
8	Colorado Avalanche	1.7 billion USD (18)
9	Edmonton Oilers	2.65 billion USD (6)
10	Toronto Maple Leafs	3.8 billion USD (1)
11	Nashville Predators	1.5 billion USD (22)
12	Los Angeles Kings	2.9 billion USD (4)
13	Tampa Bay Lightning	1.8 billion USD (16)
14	Vegas Golden Knights	1.85 billion USD (15)
15	New York Islanders	1.9 billion USD (14)
16	St. Louis Blues	1.45 billion USD (23)
17	Washington Capitals	2.15 billion USD (9)
18	Detroit Red Wings	USD 2.125 billion (10)
19	Pittsburgh Penguins	1.75 billion USD (17)
20	Minnesota Wild	1.55 billion USD (21)
21	Philadelphia Flyers	2.3 billion USD (8)
22	Buffalo Sabres	1.1 billion USD (30)
23	New Jersey Devils	USD 2.1 billion (11)
24	Calgary Flames	1.65 billion USD (19)
25	Seattle Kraken	1.6 billion USD (20)
26	Ottawa Senators	1.15 billion USD (29)
27	Utah Hockey Club (Arizona Coyotes)	1.2 billion USD (28)
28	Montreal Canadiens	3 billion USD (3)
29	Colombus Blue Jackets	1 billion USD (32)
30	Anaheim Ducks	1.3 billion USD (26)
31	Chicago Blackhawks	2.45 billion USD (7)
32	San Jose Sharks	1.35 billion USD (25)

Source: Own ed., based on NHL (2025) and FORBES (2024)

2.2.2. Methods

To map the NHL's corporate social responsibility, I used a qualitative comparative document analysis method based on secondary data sources. The purpose of the study was to identify CSR measures at the League and franchise level and the role they play in the organization's operations.

The research involved a review of publicly available documents, including annual reports, CSR reports, communications materials and other relevant sources published on the league's official CSR portal (NHL COMMUNITY, 2025) and on individual team websites. The document analysis used thematic coding, which involved content analysis along predefined categories.

In the first stage of the analysis, I analysed CSR activities that serve social objectives. To group the teams' actions, I used the most commonly used category system in the sports science and CSR literature (BABIAK - WOLFE, 2009): (1) educational programmes, (2) sport and health initiatives, (3) social and cultural programmes, and (4) charitable activities. In the second stage, I analysed CSR actions for the protection of the environment. For the systematisation, I used the seven aspects approach used in the international literature (RÁTHONYI-ÓDOR et al., 2020): (1) environmental conditions, (2) landscape use, (3) use of raw materials and energy, (4) waste management, (5) pollution and damage, (6) protection of cultural heritage, and (7) direct and indirect environmental impacts of sport activities.

The case studies (Seattle Kraken, Minnesota Wild, Pittsburgh Penguins) were structured along three predefined analytical criteria:

- Adaptation of CSR initiatives adopted by the teams and defined at the NHL level,
- CSR activities in support of community objectives,
- Measures and efforts to promote environmental sustainability.

2.3. Analysis of European hockey federations

2.3.1. Presentation of the sample

The selection of European ice hockey federations was based on the definition of the European participants in the men's and women's world ranking lists (IIHF, 2025) published on the IIHF website. The men's world ranking list showed 31 and the women's 29 European national teams, whose ice hockey federations formed my study sample. In total, I sent my interview questions to 31 organisations, and finally I was able to contact officials from the hockey federations of 6 countries. There are also some organisations with smaller apparatuses, such as Portugal, but they do not have an ice hockey federation specifically, but a winter sports federation. For these reasons, some European organisations were not included in the sample. In European terms, almost 20% of the population, one in five federations, answered my questions. The presentation of the participants of the expert interview is presented in Table 2.

Table 2: Presentation of the participants in the expert interview

Countries	Year of admission to IIHF	Men's national team	Women's national team	Interviewer's position	Date of appointment	Gender
Austria	1912	Group 'A'	Division I/A	Integrity Officer	2022	Male
Bulgaria	1960	Division II/B	Division III/B	Executive	2015	Male
Finland	1928	Group 'A'	Group A	Sustainability specialist	August 2024	Female
Hungary	1927	Group A	Group A	President	May 2024	Female
Spain	1977	Division I/B	Division II/A	Secretary General	2016	Men
Turkey	1991	Division III	Division II/B	International Communications Officer	2015	Male

Source: Own ed., 2025

2.3.2. Methods

In my primary research I conducted expert interviews with professionals from European ice hockey federations. I was looking for answers to the question where the concept of CSR is situated in the operation of each federation and what role it plays in the life of the organisation. I gained insights into the CSR activities of national hockey federations, their actions in favour of society, their environmental programmes and their future goals.

In my research, the expert interviews were conducted in a written, structured way by email due to the long geographical distances. This means that the interviewer answered predetermined questions. For me, this was helpful as I wrote the questions along predefined objectives, which I was assisted by several literature (GELEI et al., 2023; CSÁKNÉ et al., 2020; GÁBOR, 2021).

The positive aspect of qualitative research is that it allows us to get detailed responses and specific perspectives on the research topic that would not be revealed by a questionnaire analysis (CSÁKNÉ et al., 2020).

The expert interview consisted of 17 questions, with which I tried to cover as many topics as possible:

- For questions I-III, the interviewees shared basic data with me.
- In questions IV-VII, I had the opportunity to explore the CSR programmes included in the strategy of the respective Association, where I touched on both aspects, service to society and environmental protection.
- Questions VIII-X explored motivational factors, proposals made to member associations and financial inputs.
- For questions XI-XII, I asked about practices adopted from IIHF and the added value they see in the implementation of CSR programmes.
- For questions XIII-XVII, we covered topics such as energy efficiency measures, sponsorship opportunities, future plans and knowledge of NHL guidelines.

To elaborate the content of the interview analyses, I chose Atlas.ti qualitative data analysis software for several questions. The software was helpful in mapping patterns and visualising a network of relationships that emerged during the interviews, for example, in the

environmental and social CSR activities undertaken by associations, in exploring the motivations of organisations or in demonstrating the added value provided by CSR programmes. The software allows the analysis of large amounts of material in text format, which is then visualised as relationship maps through network and various visualisation tools, by means of so-called codes, memos and relationships between data chunks (HWANG, 2008).

I used a deductive coding technique, as the analysis was based on a predefined conceptual framework, supplemented by theory-based codes, and I continuously documented research reflections through the memo function. I used the network to visualise the relationship between codes and dimensions (ATLAS.TI).

I used the Atlas.ti software for questions where, on the one hand, I could use parts of an existing model (Carroll's pyramid) as codes or, on the other hand, I could use the CSR grouping criteria adopted in the international literature as theoretical codes.

2.4. Analysis of Hungarian ice hockey sports organisations

2.4.1. Presentation of the sample

Based on the public database published on the official website of the Hungarian Ice Hockey Federation, 76 member organisations can be identified. 63% of the organisations provided an evaluable response to the online questionnaire survey, which represented the completed and analysable responses of 48 sports organisations, representing the population based on geographical location. The proportion of clubs in Budapest and rural areas in the total sample ranged from 29% to 71%, with the proportion of respondents ranging from 25% to 75%. The resulting database was used as the basis for quantitative analysis.

The questionnaire was completed by 12 clubs in Budapest and 36 in rural areas (n=48) (Figure 1).

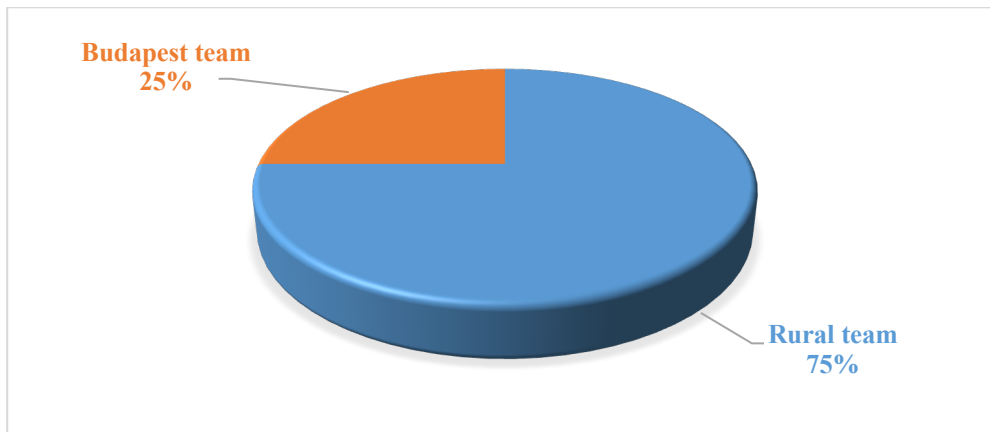


Figure 1: Geographical distribution of teams completing the questionnaire (N=48)

Source: Own ed., 2025

The following figure shows that 6-6% of the responding teams are professional female and professional male, and 88% of the teams compete at amateur (n=48) level (Figure 2).

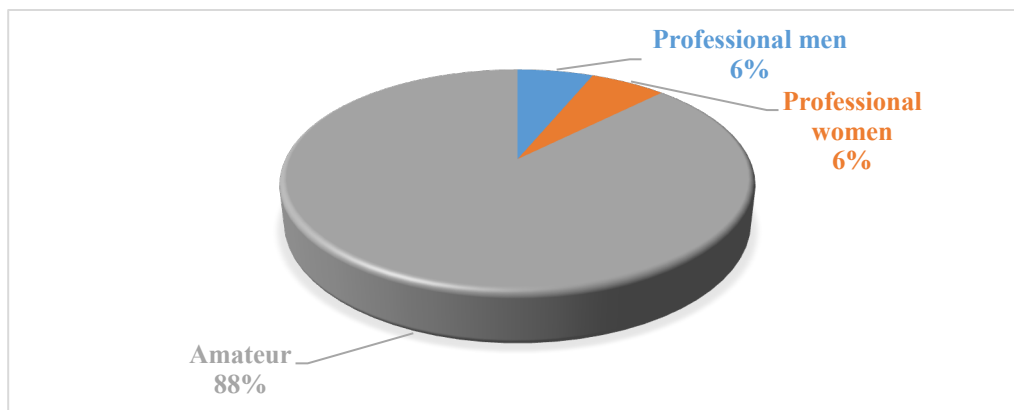


Figure 2: Distribution of teams by level of competition (N=48)

Source: Own ed, 2025

Given that an association has several teams competing at different age groups, Figure 3 does not show the classification of 48 teams. Naturally, I consider them as 1 association for the analysis, as their responses to CSR do not differ between teams.

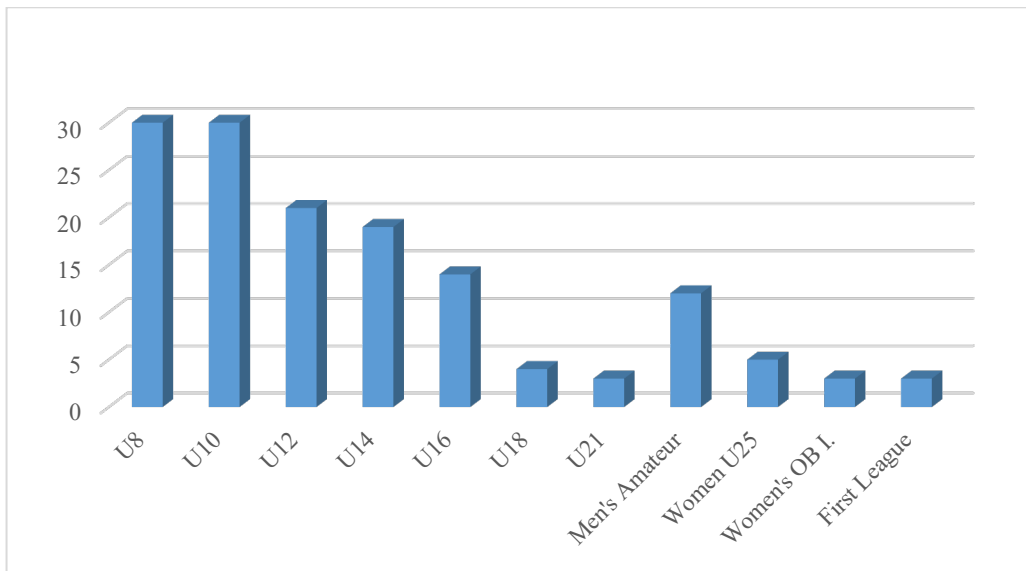


Figure 3: Distribution of age group competitions

Source: Own ed., 2025

Figure 4 shows that the teams of each sport association finished in the first, second or third part of the table in the highest age group or highest level they competed in during the 2023/24 season. In our country, no results are counted in the U8-U12 age group, so these sports organisations could not mark any results (18 clubs). 15 of the sports organisations that finished in the first third of the table, 9 of them marked that they finished in the second third of the table, 6 clubs finished in the last place of the table.

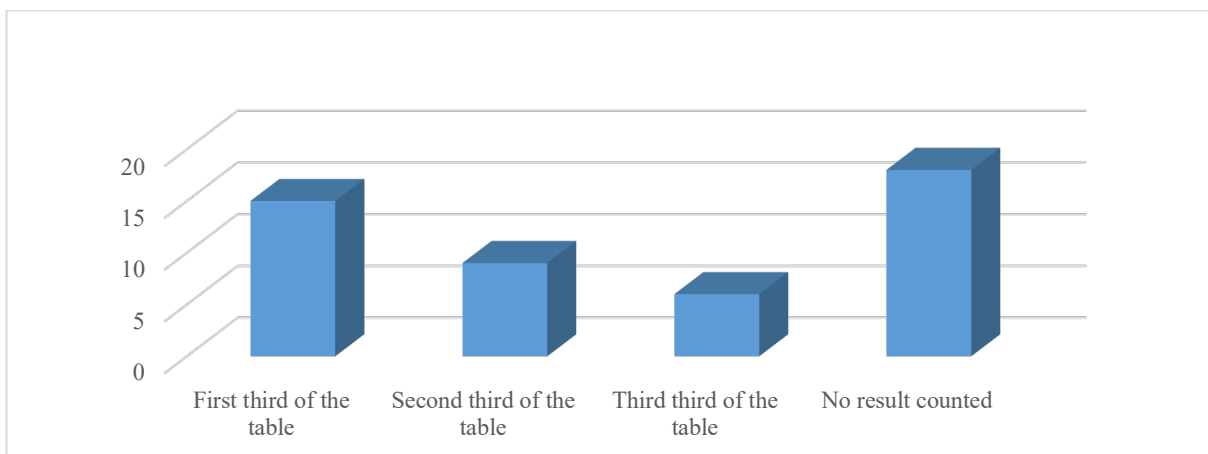


Figure 4: Distribution of domestic hockey teams by performance (N=48)

Source: Own ed., 2025

Figure 5 shows the order of magnitude of the amount of money a sports organisation spends in a season. 47.9% of respondents manage less than HUF 75 million, 35.4% manage between HUF 76 and 150 million and 16.6% manage more than HUF 151 million in a

season. Among the respondents, the number of sports organisations with a high turnover is low, so I have finally divided the sports organisations into two categories, those in one group operating on less than HUF 75 million in a year, while the other group operates on more than HUF 75 million.

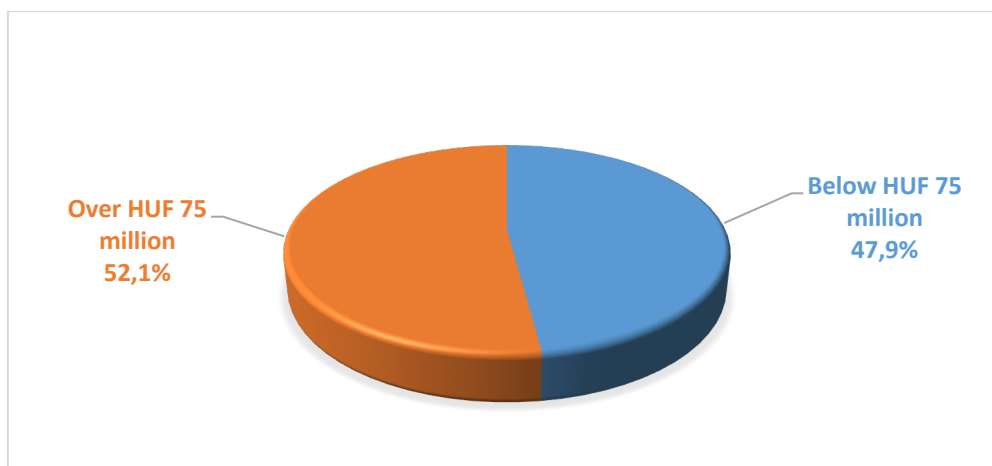


Figure 5: Distribution of teams' annual financial envelopes (N=48)

Source: Own ed., 2025

2.4.2. Methods

In the second phase of my primary research, I investigated the CSR activities of Hungarian ice hockey sport organisations using a quantitative research method, including a questionnaire survey. Data processing and statistical analysis was carried out using IBM SPSS Statistics 27. In my analysis, I used descriptive statistical indicators (mean, standard deviation, median), frequency distributions and various statistical tests to test the hypotheses.

To test the internal reliability of the questionnaire, I used Cronbach's alpha. This indicator is used to determine how consistent a given scale of the questionnaire is or how well it measures a given dimension. Scores above 0.7 are considered reliable, while scores below 0.6 may require a revision of the scale (KOVÁCS et al., 2017). For my questionnaire, the obtained score was >0.7 for all variables tested.

Before statistically testing the hypotheses, I first checked the prerequisites for the applicability of parametric tests. I assessed the normality of the distribution of the variables quantitatively using the Shapiro-Wilk test, the Kolmogorov-Szmirnov test and qualitatively

using histograms, normal Q-Q plots and boxplots. The Shapiro-Wilk test was chosen primarily because it is a reliable and sensitive procedure for small and medium sample sizes ($N < 50$) and is a widely accepted method for checking normality. If the distribution of a variable showed a significant deviation from normality ($p < 0.05$), further analyses were performed using non-parametric statistical tests, as these do not require a normal distribution of the data and are more robust to biases arising from the distribution (RAZALI - WAH, 2011).

For the analysis of the data, I used the chi-square (χ^2) test in order to explore the relationships between nominal variables. This test allows to determine if there is a statistically significant relationship between two variables or if they are independent of each other. If the table resulted in a 2x2 contingency table, i.e. the degree of freedom was 1, I applied a Yates continuity correction to estimate the test statistic more accurately. I used this correction only when analysing the relationship between two binary variables. For the chi-square test, the strength of the relationship between the variables was examined by calculating the coefficient Phi(ϕ) for 2x2 tables and the Cramér coefficient V for the other cases. For the two indicators, the relationships were evaluated along the following intervals (KAKUDJI ET AL., 2020). I conducted hypothesis testing along the variables related to CSR activities. Among the non-parametric statistical tests, I used Kruskal-Wallis test for groups of three or more variables, as groups formed according to the position occupied in the table. This test is only suitable for detecting the existence of a difference between groups, so I used pairwise comparisons with Bonferroni-corrected Mann-Whitney tests to identify significant differences between groups (SAJTOS - MITEV, 2007).

To compare two independent samples, if the normality condition was not met, I used the Mann-Whitney U-test. This non-parametric procedure compares the distribution of the ranked values of the two groups and does not require homogeneity of variance or normality. The test is particularly suitable for data with ordinal scales or small sample sizes when the parametric t-test conditions are not met (SAJTOS - MITEV, 2007). In addition to using the Mann-Whitney test, I calculated the effect size (r) to assess the statistical significance of the results and their practical significance.

3. MAIN FINDINGS OF THE DISSERTATION

In this thesis, I present the results of my primary research related to the objectives of my dissertation and summarise the overall conclusions.

The main objective of my research was to investigate and systematically explore the role of corporate social responsibility in North American, European and domestic sporting life, with a particular focus on the sport of ice hockey.

On this basis, I formulated the following *basic hypothesis: the integration and role of the CSR concept in the sport of ice hockey is well defined overseas (especially in North America) and is a central element of corporate strategy, while in Europe it is lagging behind. In European countries, the place and role of CSR is less centralised and primarily socially relevant. In the case of Hungary, the use of CSR does not have a strategic approach, but rather takes the form of ad hoc, sporadic initiatives.*

Objective 1:

Through a systematic review of relevant international and domestic literature, my aim was to provide a theoretical foundation for the place and role of CSR in sport, to identify the interfaces and areas of CSR and sport, and to present the emergence of CSR in ice hockey.

The feasibility of integrating CSR measures in sport has been demonstrated, mainly through international literature, as sport can serve both aspects of CSR.

Although at present the popularity of the academic study of CSR measures in ice hockey is lagging behind other sports (e.g. football, American professional leagues), the growth of CSR measures in recent years and the increasing appreciation of their role confirms that this is a very topical and relevant subject.

My second objective:

To identify, categorize, and define the role of CSR programs at the league and team level in the North American Professional Hockey League (NHL) that serve social and environmental goals.

***H1:** Each team in the North American Professional Hockey League (NHL) implements multiple, consciously designed, structured social and environmental CSR activities, including those that can be adapted from League guidelines and those that are self-initiated.*

An examination of the NHL's CSR activities shows that CSR is prominent in their operational strategies at both League and team level. The 32 teams surveyed all follow the NHL Community Guidelines and are therefore able to engage in community outreach activities and, in addition, implement CSR practices of their own initiative, tailored to local conditions.

In the CSR activities for society, both at League and team level, in each of the 4 categories I followed (education, sport/health, social, charity), in most cases there has been a conscious organisation for years and well-structured, recurrent actions are in place, thus the role of CSR is well identified. Progress has been made in this aspect in recent years. Today, all teams have comprehensive and popular programmes that reach out to a wide section of society. They are at the forefront in building community, reaching out to disadvantaged groups, passing on the love of hockey and educating fans.

The NHL and the sports companies involved in the league also have very conscious and diversified CSR activities in the environmental field, which could be thematically organised into 7 aspects. The actions within a team are interlinked and well connected, not just isolated solutions. The positive impact of the environmental activities of the teams in the League is cumulative, thus contributing significantly to reducing the environmental impact of their operations. The teams are consciously following the NHL Green guidelines and CSR activities based on independent programmes can be observed. Based on my results, **I accept my H1 hypothesis.**

***H2:** Self-initiated CSR activities of teams in the North American Professional Hockey League (NHL) are associated with team performance. It is hypothesized that mainly the more successful teams have self-developed CSR activities, i.e., that effectiveness has a positive impact on CSR.*

***H3:** The self-initiated CSR activities of teams in the North American Professional Hockey League (NHL) are associated with the franchise value of the teams. It can be assumed that*

teams with higher franchise value have self-established CSR activities, i.e., market value has a positive impact on CSR.

To test the validity of the hypotheses, I divided the teams into 4 groups of 8 based on performance and franchise value and then, as a result of document analysis, I found that all 32 teams have independently developed CSR measures that go beyond following the guidelines set by the League. The results showed no relevant difference between the groups categorised by either sporting performance (i.e. league table position) or franchise value. Accordingly, it cannot be demonstrated that these factors have a significant impact on the existence of own-initiative CSR activities. **My hypotheses H2 and H3 were not confirmed.**

My third objective:

To explore and systematically understand the CSR strategies, practices and future plans of European hockey associations.

***H4:** European hockey federations do not currently have a comprehensive CSR strategy that could guide clubs and help them to play a conscious role in this direction. The CSR practices observed are mainly those that serve society, and these are patchy and often isolated from each other.*

I conducted expert interviews with professionals from several European ice hockey associations (Table 3), the results of which revealed that in most cases they do not have a comprehensive CSR strategy. An exception is the Finnish Ice Hockey Federation, which has a Sustainability Programme since 2022, based on 4 sub-programmes, where both environmental and social support are included.

The Bulgarian Ice Hockey Federation follows the programmes and national initiatives of the Government and the Ministry of Sport and tries to integrate them as much as possible into its work. At the federation level, they organise sport-related social activities for the people living there and have been involved in all of the above-mentioned IIHF Sustainability Programmes for 5 years.

In Austria, they have established an Integrity Group and a Social Protection Programme, incorporating the IIHF guidelines into their organisational strategy.

The Hungarian, Spanish and Turkish federations do not have a strategy covering all their activities in this area, but they have event-related programmes.

The expert interviews show that the associations mainly carry out CSR activities for society, but in Finland environmental measures are also part of the strategy. On the basis of the analysis of the expert interviews, **I consider my hypothesis H4 to be only partially confirmed.**

H5: European ice hockey federations do not have a dedicated budget for the implementation of CSR programmes.

During the expert interviews, all the ice hockey federations surveyed stated that they do not have a budget allocated to CSR programmes, nor could they say how much money they spend on CSR programmes (Table 3). It can be concluded that **my hypothesis H5 was confirmed.**

Table 3: Key findings from the expert interview

	Hungarian Ice Hockey Federation	Bulgarian Ice Hockey Federation	Finnish Ice Hockey Federation	Spanish Ice Hockey Federation	Austrian Ice Hockey Federation	Turkish Ice Hockey Federation
Apparatus	58 persons	4 persons	77 persons	33 persons	9 persons	25 persons
Separate CSR working group			X			
Overall CSR strategy			X			
CSR programme for society	X	X	X	X	X	X
CSR programme for the environment	X	X	X	X		
CSR programme proposal to clubs		X	X			
CSR expenditure/year	exact amount not known, no budget allocation	exact amount not known, no budget allocation	exact amount not known, no budget allocation	exact amount not known, no budget allocation	exact amount not known, no budget allocation	exact amount not known, no budget allocation
Application of IIHF guidelines	X	X	X	X	X	X
Energy efficiency measure		X	X			
Introduction of a new CSR programme in the future	X	X	X	X		
Sponsor committed to CSR			X	X	X	
Knowledge of NHL CSR measures		X	X			

Source: Own ed., 2025

In Europe, the concept of CSR in the operation of ice hockey federations - with the exception of Finland, Sweden and Germany - does not yet appear as a logically structured, systematic strategy. Environmental protection programmes can be observed almost only in countries that are already more environmentally aware. Social activities and some green measures are ad hoc, mainly linked to events.

Fourth objective:

To get to know the position of domestic hockey clubs on social responsibility, to identify the measures already implemented, their role, with particular attention to the motivational factors behind these activities, the financial aspects of the measures and the clubs' future plans.

***H6:** There is a link between the turnover of domestic ice hockey clubs and their social involvement. It is assumed that mainly clubs with higher turnover have CSR activities, i.e. turnover positively influences CSR.*

Based on the results of the Chi-squared test adjusted by Yates' correction (Table 4), no significant correlation between the category of turnover of sports organisations and the existence of CSR activities can be found, $\chi^{(2)}(1, N=48)=0.680$ $p=0.205$. The analysis shows that the prevalence of CSR is not significantly related to the annual turnover of sports organisations, i.e. organisations with higher financial resources are not necessarily more active in CSR than those with lower turnover. On this basis, **my hypothesis H6 is not confirmed.**

Table 4: Relationship between financial situation and the existence of CSR

	Turnover >75 million HUF	Turnover <75 million HUF	Total
CSR activity exists	12	17	29
%	41,4%	58,6%	100,0%
No CSR activity	11	8	19
%	57,9%	42,1%	100,0%
Total	23	25	48
%	47,9%	52,1%	100,0%

Source: Own ed., 2025 (N=48)

H7: *There is a relationship between the level of performance of domestic ice hockey sports organisations and their social engagement. It can be assumed that mainly the more successful clubs have CSR activities, i.e., performance positively influences CSR.*

The results of Pearson's chi-square test indicate a significant relationship between the performance of sports organisations and the existence of CSR activities, $\chi^2(2, N=48) = 8.973$ $p=0.011$. Cramer's V value ($V=0.432$), which indicates the closeness of the relationship, indicates a medium strength relationship between the two variables (Table 5).

Table 5: Relationship between effectiveness and the existence of CSR

	U12 and below	Table 1/3	Table 2-3/3	Total
CSR activity exists	6	12	11	29
%	20,7%	41,4%	37,9%	100,0%
No CSR activity	12	3	4	19
%	63,2%	15,8%	21,1%	100,0%
Total	18	15	15	48
%	37,5%	31,3%	31,3%	100,0%

Source: Own ed., 2025 (N=48)

The results show that the proportion of CSR activities is lower for sports organisations not ranked (20.7%), while the presence of CSR is much higher for organisations ranked in the top third of the table and in the middle and bottom thirds (41.4% and 37.9% respectively). The results suggest that there is a correlation between the competitive performance of sports organisations and their CSR activities. On this basis, **hypothesis H7 is confirmed.**

H8: *The motivational factors behind the use of CSR measures include economic benefit, federation expectations and fan satisfaction.*

The results show (Figure 6) that the greatest motivating force among respondents was to run an ethical organisation ($M=4.40$; $SD=0.676$). Helping the disadvantaged ($M=4.31$; $SD=0.719$) and maintaining and enhancing a good reputation ($M=4.25$; $SD=0.758$) also emerged as strong motivators, highlighting the importance of social engagement and

positive perception. Environmental protection was also identified as a significant factor (M=4.17; SD=0.753).

Meeting federal expectations (M=4.06; SD=1.262) and fan satisfaction (M=4.02; SD=0.785) were rated as medium drivers by respondents.

The least motivating factors included achieving economic benefits (M=3.15; SD=1.473) and social media exposure (M=3.10; SD=1.207). Based on the results obtained, **my hypothesis H8 was not confirmed.**

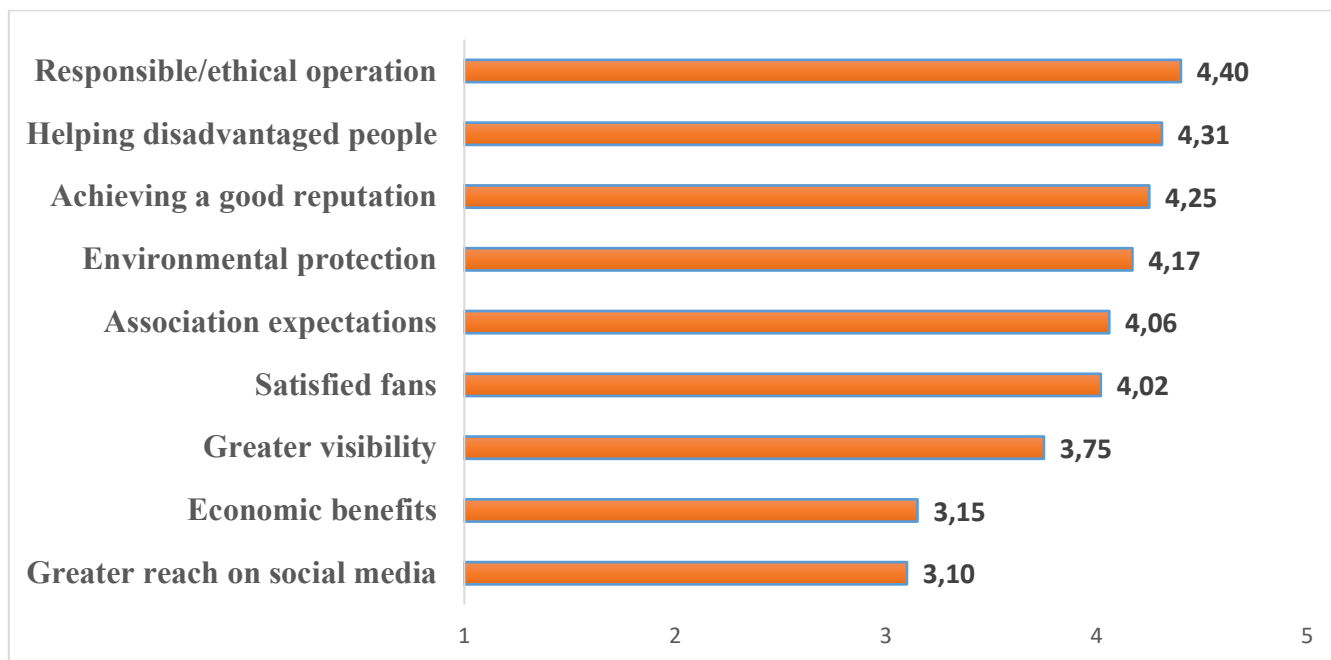


Figure 6: Motivational factors for adopting CSR

Source: Own ed., 2025 (N=48)

H9: Representatives of domestic ice hockey sport organisations with CSR activities statistically prove that they consider it more useful to introduce information and educational programmes on CSR, which would promote a more conscious involvement in the application of CSR measures in Hungary.

Respondents consider it useful for the managers of sports organisations to participate in such information/education/training (M=4.125 SD=0.841). There was no statistically verifiable difference in the perception of this question (U=240.5 Z=-0.814 p=0.415) between sports organisations with CSR activities and those without CSR activities. The results (Figure 7) suggest that the possibility of training is characterised by a generally supportive attitude

among the respondents, regardless of whether their organisation is engaged in CSR activities. Based on the results, **my hypothesis H9 is not confirmed.**

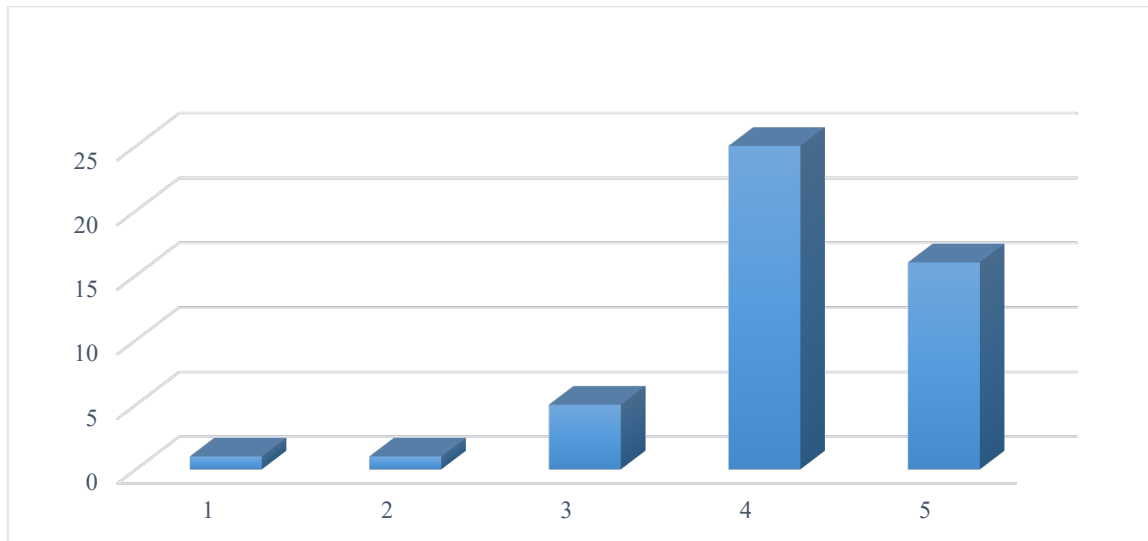


Figure 7: Perception of the usefulness of CSR training

Source: Own ed., 2025 (N=48)

My fifth objective:

To contribute to the development and more conscious and systematic involvement of CSR activities at the federation and member organisation level of domestic ice hockey sport through the scientific exploration of international CSR trends, guidelines and best practices in the sport of ice hockey.

With my research findings I would like to contribute to the development of CSR activities at the federation and team level in domestic ice hockey, and thus I have formulated the following proposals:

- The Hungarian Ice Hockey Federation should initiate contacts with sustainability experts from the International Ice Hockey Federation and from European national ice hockey federations with relevant experience in the field of CSR. As a result of the establishment of contacts, by integrating recommendations from abroad, we could lay the foundations in Hungary for integrating CSR into the organisational strategy and promote responsible operation and its embedding in the practical system. It would be advisable for the Association to employ a sustainability expert or a sustainability team, so that communication could be more efficient, the options and

recommendations to be implemented could become more systematic, and clubs could receive uniform guidance.

- The Hungarian Ice Hockey Federation could organise targeted education/training workshops for its member organisations, after having systematised the good practices already used internationally. These workshops could mainly stimulate the formation of attitudes and, in the long term, help to systematise the role and place of CSR for the leaders of sports organisations. The questionnaire survey showed that clubs have a supportive attitude towards participation in this type of education/training. The responses also confirmed that in many cases the four levels of social responsibility (economic, legal, ethical, philanthropic duty) are misunderstood, making education a necessity, not a way to relegate economic responsibility to the background, since the basis of an organisation's operation is to operate in an economically profitable way. It would be advisable to have a person responsible for such programmes in the case of member organisations, so that the flow of knowledge through education would be more effective.
- The Hungarian Ice Hockey Federation could, after reviewing the practical recommendations from abroad, come up with a programme proposal that could help its own organisational operation and could apply to sporting events organised by the organisation, thus giving the concept a place in the organisational strategy . Once the programme proposal has been drawn up, recommendations could be made to the member organisations, with particular emphasis on the two aspects (social and environmental measures). It is advisable to introduce the various activities gradually, starting with programmes that do not involve additional costs and then moving on to actions that require less effort and investment.
- In the case of Hungarian ice hockey sports organisations, in response to the results of the questionnaire survey, which showed that ethical behaviour, maintaining a good reputation, caring for the environment and helping their immediate surroundings are important to them, the Association could develop programme proposals in these areas. The results of the questionnaire showed that in the capital it is more important to present these activities on the organisation's community media platforms. Nevertheless, I would also suggest an increased involvement in the media for clubs

in rural areas, where CSR activities would also contribute to a more positive image of the sport and the sport organisation (HARRISON, et al., 2024 MAMO-ANAGNOSTOPOULOS, 2023) and would increase the fan base. Internationally, there are a number of good practices that can be integrated into operations at no cost. For example: fundraising for the needy, litter picking, recycling of equipment, selective waste collection, etc.

- In the NHL, there are several measures that have a zero cost and can be implemented during professional teams' games, so that increasing the fan base would not require additional resources, but would increase the number of people who get to know the sport, thus increasing the number of spectators and the number of people involved in the sport, which could stabilise the economic situation of the sports organisations. Good practices could be the possibility of applying for the title of "Hockey Mum of the Month" or "Teacher/Diaper of the Month", with free tickets for the winner, or cooperation with various organisations to raise awareness of health promotion and prevention, or even a competition for those who travel to the match by public transport, etc.
- More and more domestic companies are getting involved in responsible social behaviour, so there is an opportunity to attract new sponsors. It would be worthwhile to approach companies that are already involved in CSR or even sponsor several sport-related events, so that the Hungarian Ice Hockey Federation and its member associations can incorporate new CSR activities into their strategy.

From a social perspective, I would highlight the following opportunities:

- Community education programmes e.g.: raising awareness on healthy lifestyle and health screening (Pinktober, Movember);
- Social inclusion programmes e.g.: involving people with disabilities in hockey (assisting hearing and visually impaired people and wheelchair hockey teams);
- various awareness-raising programmes e.g. integrity, non-violence, ethics in hockey; developing cooperation with animal shelters;
- fan community-building events e.g. charity matches, family day type events, Mum/Teacher/Daughter of the month (after a call for applications, winners will be

invited to play in adult men's or women's hockey matches, with the aim of doing something outstanding for society);

The following programmes are relevant from an environmental point of view:

- environmental awareness-raising e.g.: environmental lectures, public transport awareness-raising (cycling month), Earth Day celebrations;
- local environmental actions e.g.: selective waste collection, litter picking around the ice rink, cleaning up parks/green spaces, tree planting initiated by teams, involving fans, "greening" of educational institutions involving athletes;
- sustainable use of resources e.g.: introducing recycling/reuse (ice hockey equipment), making decorations from broken and worn equipment.

Overall, the last decade and a half has seen an increasing prevalence of CSR measures in hockey, especially in North America, with league and team level involvement. In recent years, there has also been a growing presence of CSR in Europe, especially in nations that have achieved success in sport and that have a greater involvement in environmental protection or social aid outside sport. Despite the fact that Hungary is still lagging behind international trends, CSR practices are already sporadically present in the sport of ice hockey. Presumably, in the coming years, responsible behaviour and social commitment could be strengthened by learning about international good practices.

My findings have contributed to a deeper understanding of the sport-CSR nexus, especially in the context of professional ice hockey, where there has been limited comprehensive empirical analysis.

4. NEW AND NOVEL RESULTS OF THE DISSERTATION

I consider the exploration of the role of the CSR concept in the sport of ice hockey, including the North American Professional Ice Hockey League's comprehensive programme of this kind, the examination of the responsible practices of several European ice hockey associations and the specificities of the CSR approach of Hungarian ice hockey clubs to be novel aspects of my research. Based on the studies conducted and the conclusions drawn, I have formulated the following new and novel scientific findings and conclusions:

- With the present study I have been able to confirm that the **North American Professional Ice Hockey League and its teams have an outstanding level of leading CSR activities**. The presence of **responsible behaviour is also increasing in Europe**, especially in the case of nations that have achieved sporting success, but currently Hungary is still lagging behind the CSR trends in the sport of ice hockey at the international level.
- **I have identified** and categorized CSR practices employed by **North American Professional Hockey League (NHL)** franchises, which **exhibit a coherent, multidimensional CSR structure that builds on each other**. The measures identified **combine broad social utility, environmental sustainability, community embeddedness and are geared towards long-term value creation**.
- Most **European ice hockey federations** do not have a **consciously planned and strategically coordinated CSR concept**. CSR measures are mainly observed in the social domain, but they are mostly **ad hoc, separate and not integrated in an organic way** into the long-term strategic objectives of the associations.
- **The CSR activities of Hungarian ice hockey associations** show a **correlation with the level of performance** of the organisation, while **the annual turnover has no** such impact. Higher levels of CSR activity are observed among the more successful sports organisations.
- In the case of **CSR activities of Hungarian ice hockey sports organisations serving society**, initiatives that have an impact on the immediate operating environment, enhance community experiences, involve families, educate and develop are given more attention, while **the importance of** measures with a broader social impact

(support for educational institutions, health or cultural programmes) is currently somewhat neglected.

- I have identified the **differences in priorities between ice hockey organisations in the capital and in rural areas, with a particular focus on the CSR measures most commonly used in ice hockey at international level.** In rural sports organisations, measures to involve families, community building programmes and increasing the environmental awareness of fans are more important, while in Budapest sports organisations, measures to support the further training of employees and the installation of solar panels on ice rinks are more important.
- I have identified the **differences in priorities between Hungarian ice hockey sports organisations with lower and higher revenues, with a particular focus on the CSR measures most commonly used in ice hockey at international level.** For the sports organisations with lower revenues, the re-use of equipment is more important, while for the more capital-rich organisations, the role of cultural promotion and the care of natural assets are more important in the context of CSR.

5. PRACTICAL APPLICABILITY OF THE RESULTS

The main objective of my research was to investigate and systematically explore the role of CSR in North American, European and domestic sporting contexts, with a particular focus on the sport of ice hockey. Achieving my objective in as much detail as possible and systematising the results obtained will help me to contribute to the development of CSR activities at the federation and club level in domestic ice hockey, which will make my findings of practical use.

The dissemination of my recommendations, based on CSR trends and good practices applied internationally in ice hockey, to the players of domestic ice hockey sport can help to create an attitude formation and a more conscious role in relation to the topic under study in Hungary.

In the long run, coherent and multidimensional social and environmental CSR programmes based on the American model could become feasible, and thus the CSR concept could be integrated into the organisational operation in Hungary as well and would be of strategic importance in the realisation of the long-term objectives of the Federation and the clubs.

Although I have identified the current roles of CSR in domestic ice hockey organisations - strengthening women's participation at all levels of ice hockey; youth development programmes; charitable role; ecological protection - my findings would also allow for additional types of measures with broad social utility, such as:

- more conscious community outreach/community building;
- education/knowledge transfer;
- lifestyle-focused health promotion;
- implementing non-discrimination and non-violent sport;
- a more proactive role for charity.

My findings have contributed to a deeper understanding of the sport-CSR nexus, especially in the context of professional ice hockey, where there has been limited comprehensive empirical analysis.

6. LIST OF PUBLICATIONS RELATED TO THE DISSERTATION

Articles, studies

In a domestic journal in a foreign language:

1. **Márton L.** (2022): Environmental management activities of NHL teams. *Applied Studies in Business and Commerce*, 16 (1) pp. 53-60.

A nationally published journal in Hungarian:

2. **Márton L.-Ráthonyi-Ódor K.** (2024): Energiahatékonysági intézkedések a magyar jégpályákon. *Acta Carolus Robertus*, 14 (1) pp.163-174.
3. **Márton L.** (2022): Nemzetközi jégkorong egyesületek CSR tevékenységei. *International Journal of Engineering and Management Sciences*, 7 (1) pp. 149-158.
4. **Márton L.** (2022): Észak-Amerikai profi kosárlabdacsapatok a társadalom szolgálatában. *Acta Universitatis De Carolo Eszterházy Nominatae: Sectio Sport*, 53, pp.19-33.
5. Katrics P.-Laczkó A.-Gombos Z.-Béres S.-Tóth L.-Bogár L.-**Márton L.-Benczenleitner O.** (2021): A premenstruációs tünetegyüttes hatása a maximális- és robbanékony erőre női felnőtt jégkorongozók esetében. *Acta Universitatis De Carolo Eszterházy Nominatae: Sectio Sport*, 51, pp.7-18.

Book excerpt:

6. Ráthonyi-Ódor K.-Ráthonyi G.-**Márton L.** (2021): A Puma zöld törekvései. In: Balogh László (szerk.) *Versenysport és szabadidősport*. Debreceni Egyetem Sporttudományi Koordinációs Intézet, 178.p. pp.117-126., 10.p.
7. Ráthonyi-Ódor K.-Ráthonyi G.-Bácsné Bába É.-**Márton L.** (2020): A riói olimpia környezetvédelmi törekvései. In: Balogh László (szerk.) *Trendek a versenysport és a szabadidősport területéről*. Debreceni Egyetem Sporttudományi Koordinációs Intézet, 259 p. p. 99

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8. Katrics P.-Laczkó A.-Gombos Z.-Béres S.-**Márton L.**-Bogár L.-Benczenleitner O. (2023): A maximális- és robbanékony erő változásai a premenstruációs tüneteket tapasztaló felnőtt női jégkorong játékosoknál. Magyar Sporttudományi Szemle 24:2(102) pp. 63/3-64/1. 2 p.

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Registry number: DEENK/434/2025.PL
Subject: PhD Publication List

Candidate: Laura Márton
Doctoral School: Doctoral School of Management and Business
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List of publications related to the dissertation

Articles, studies (4)

1. **Márton, L.**, Ráthonyi-Ódor, K.: Energiahatékonysági intézkedések a magyar jégpályákon.
Acta Carolus Robertus. 14 (1), 163-174, 2024. ISSN: 2062-8269.
DOI: <http://dx.doi.org/10.33032/acr.5114>
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DOI: <http://dx.doi.org/10.33040/ActaUnivEszterhazySport.2024.53.19>
4. **Márton, L.**: Nemzetközi jégkorong egyesületek CSR tevékenységei = CSR Activities of
International Ice Hockey Clubs.
International Journal of Engineering and Management Sciences. 7 (1), 149-158, 2022.
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List of other publications

Articles, studies (2)

5. Ráthonyi-Ódor, K., Ráthonyi, G. G., **Márton, L.**: A Puma zöld törekvései = Green efforts by Puma.
In: Versenysport és szabadidősport. Szerk.: Balogh László, Debreceni Egyetem Sporttudományi Koordinációs Intézet, Debrecen, 117-126, 2021, (Válogatott tanulmányok a sporttudomány köréből, ISSN 2631-0910 ; 5) ISBN: 9789634902867
6. Ráthonyi-Ódor, K., Ráthonyi, G. G., Bácsné Bába, É., **Márton, L.**: A Riói Olimpia környezetvédelmi törekvései.
In: Trendek a versenysport és a szabadidősport területéről. Szerk.: Balogh László, Debreceni Egyetem Sporttudományi Koordinációs Intézet, Debrecen, 99-105, 2020, (Válogatott tanulmányok a sporttudomány köréből, ISSN 2631-0910 ; 4) ISBN: 9789634902218

The Candidate's publication data submitted to the Tudóstér have been validated by DEENK on the basis of the Journal Citation Report (Impact Factor) database.

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