



CONFERENCE

S P O R T S M A N A G E M E N T I N
C E N T R A L & E A S T E R N E U R O P E

07 – 09 APRIL 2025, RAJECKE TEPLICE, SLOVAKIA

BOOK OF ABSTRACTS

EDITORS BOARD

ASSOC. PROF. ING. MICHAL VARMUS, PHD.

Faculty of Management Science and Informatics, University of Zilina

PROF. ING. MILAN KUBINA, PHD.

Faculty of Management Science and Informatics. University of Zilina

INSTITUTE OF SPORTS MANAGEMENT

FACULTY OF MANAGEMENT SCIENCE AND INFORMATICS,
UNIVERSITY OF ZILINA, SLOVAKIA

ISBN 978-80-554-2216-9

LOCAL ORGANIZING TEAM

MICHAL VARMUS

University of Zilina

MILAN KUBINA

University of Zilina

DOMINIKA TOMAN

University of Zilina

MARTIN MICIAK

University of Zilina

ROMAN ADAMIK

University of Zilina

MICHAL SARLAK

University of Zilina

DOMINIKA FINDRIKOVA

University of Zilina

IVANA GABRISOVA

University of Zilina

smicee.conference@gmail.com

TABLE OF CONTENTS

THE CONCEPT OF SUSTAINABLE DEVELOPMENT: A FORMULA 1 COMMERCIAL SPONSORS PERSPECTIVE	5
SPORT STRATEGIES USED BY PROFESSIONAL FOOTBALL CLUBS IN CENTRAL AND EASTERN EUROPE: AN EXPLORATORY STUDY	8
INTRODUCING LATEST SPORTS TECHNOLOGY TO CONSUMER USE.....	12
SPORT EVENT SECURITY: HOW TECHNOLOGY HELPS PREVENT INCIDENTS	16
COMPARATIVE ANALYSIS OF SPRINTERS' PERFORMANCE IN THE 100 M BEFORE AND AFTER THE INTRODUCTION OF THE WORLD RANKING	19
FROM ENGLAND TO BELARUS: UNEQUAL TRANSFER MARKETS IN EUROPEAN FOOTBALL.....	22
EASM 2025 CONFERENCE IN BUDAPEST: PARTICIPATION AND SCHOLARSHIP OPPORTUNITIES	25
SPORTS IN MUNICIPALITIES – WHAT THE DATA SAYS AND WHERE WE ARE HEADED	27
PREPARATION OF CURRENT PROFESSIONAL ATHLETES FOR THEIR FUTURE CAREERS OUTSIDE SPORTS.....	29
A SYSTEMATIC VIEW OF EDUCATION AND DEVELOPMENT WITHIN SPORTS MANAGEMENT	33
IMPROVEMENTS IN THE EMPLOYEE BEHAVIOUR TO INCREASE ORGANIZATION'S CYBERSECURITY UTILIZING SPECIFIC HUMAN CAPITAL DEVELOPMENT ACTIVITIES.....	35
EDUCATION OF ATHLETES FOR A CAREER AFTER A SPORTS CAREER	37

THE CONCEPT OF SUSTAINABLE DEVELOPMENT: A FORMULA 1 COMMERCIAL SPONSORS PERSPECTIVE

Sandanski, Ivan ¹

¹National Sports Academy

Abstract

The United Nations' 17 Sustainable Development Goals have increasingly become the normative framework guiding the policies, strategies and actions of businesses and sport organisations. With an ever increasing number of entities integrating the concept of sustainability as a pillar of their development, the sponsorship process has also become more sophisticated, but very little is still known how companies leverage the idea of sustainability in their sponsorship strategies and practices. The study interrogates how B2B and B2C companies perceive the concept of sustainable development in their Formula 1 (F1) sponsorship programmes. More specifically, it sets out to analyse sponsors' sustainability commitment and prospective links with their sponsorship decision-making process, selection criteria and evaluation of effects.

F1, as an entertainment spectator sport produces significant economic, social and environmental impacts which raises the question of its role in promoting sustainable development. A holistic approach to sustainability requires an integration of all four mutually reinforcing and intertwined aspects, namely economic, environmental, human/social, and institutional (UNSDG, 2000; Fredline et al., 2004; Spangenberg, 2004). Today, F1 is a global sport with a cumulative TV audience of 1.9 billion people, 500 million followers and 275 commercial partners (Venturoli, 2023). The issue of sustainability has become of critical importance for F1 stakeholders due to the nature of the sport itself which has often been criticized for negative environmental impacts; being overly commercialised; hardly accessible for different social groups; and requiring massive investments to host races without equally spreading of costs and benefits among wider societal groups. In this sense, F1 racing represents a specific form of "spectacle in a highly urbanized environment involving markets, a configuration of social relations and flows of goods, capital, technology, cultural forms and people" (Gotham, 2005, p. 227). This complex process is heavily dependent on the development of partnerships with a range of

commercial brands in the form of financial and/or value-in-kind sponsorships (e.g., technology, products, services, expertise, staff). Nonetheless, the link between sponsorship and sustainability is not straightforward. This is because the concept of sustainable development is premised on moral and ethical imperatives, while the essence of sponsorship as a marketing communication platform and a mechanism of resource exchange is driven by commercial motives, although for many companies it is part of a wider CSR philosophy.

A mixed method combining a questionnaire and a semi-structured interview was employed. The primary informants were marketing managers responsible for managing their F1 sponsorships. In total, 26 sponsoring companies representing both B2C and B2B organisational models took part in the study. The sample includes companies partnering with at least one F1 team and the F1 corporation itself. For data obtained, a descriptive analysis was employed unveiling key trends and relevant patterns in how they perceive and incorporate sustainability in their sponsorships.

The data reveal that B2B and B2C companies put a growing emphasis on sustainability within their corporate culture, as 88% of them claim that it is a key area of their corporate strategy. Despite operating in diverse sectors, brands rely on pivotal metrics when evaluating the F1 sponsorship opportunity, with a primary focus on the return on investment. Technology integration and research and development emerge as critical factors for B2B brands when compared to their B2C counterparts. The results also show that sustainability managers are in general isolated from the sponsorship decision-making process. These observations largely support the finding that 'political' decisions made on a high organisational level (i.e., top executives) preside over expert knowledge (i.e., marketing managers). However, all sponsoring companies indicated that sustainability is not among the leading criteria when considering a sponsorship opportunity. This observation could be partly explained by the limited knowledge and expertise on leveraging sustainable development in a holistic manner; lack of sufficient coordination and structural integration at the intra-organisational level; and pressure to achieve short-term financial performance. Sustainability becomes a motive only if it could damage the brand's reputation, which is opposite to Huberty's (2018) findings about cause-related marketing, sponsorship fit or brand management strategy. The contrasting perspective appears at 40% of brands thinking that F1 can be a platform for sustainability-related partnerships, while 60% share the contrary opinion. It also appears that marketing managers perceive

sustainability chiefly through its financial aspect or what this would cost them and neglect to consider its interplay with the rest of its fundamental pillars. The results show that brands do not measure any sustainability impacts of their partnerships in F1.

Regardless of their business model, F1 sponsors still see their sponsorships primarily as a promotional tool, rather than as a strategic one that can be integrated into broader corporate sustainability policies. The complexity of sustainable development, the insufficient capacity to integrate sustainability-related initiatives into sponsorship relationships and the resource cost of such an approach put managers under pressure to demonstrate rapid financial results, market growth and increased brand awareness

Keywords

Formula 1, sponsorship, sustainability, brands

References

Fredline, E., Jago, L. and Deery, M. (2004). The development of a generic scale to measure the social impacts of events. *Event Management*, 9(1-2), pp. 47-61.

Gotham, K. (2005). Theorizing urban spectacles. *City*, 9(2), pp. 225-246.

Huberty, L. (2018). Using sustainability to attract new sponsorships. In B. McCullough and T. Kellison (Eds.), *Routledge Handbook of Sport and the Environment*, Routledge, London, 149-160.

Spangenberg, J.H. (2004). Reconciling sustainability and growth: criteria, indicators, policies, *Sustainable Development*, 12(2), pp. 74-86.

Venturoli, M. (2023). 275 sponsorship programs during the 2023 Formula 1 season. RTR Sports Marketing corporate website. Available at: <https://rtrsports.com/en/blog/the-275-sponsorship-deals-of-the-2023-formula-1-season/> [accessed 4 January 2024].

UN Sustainable Development Goals. Available at: <https://sdgs.un.org/goals>. [accessed 8 January 2024].

SPORT STRATEGIES USED BY PROFESSIONAL FOOTBALL CLUBS IN CENTRAL AND EASTERN EUROPE: AN EXPLORATORY STUDY

Drewniak, Dariusz¹; Nessel, Karolina¹

¹ Jagiellonian University in Krakow, Poland

Abstract

Sport Strategies Used by Professional Football Clubs in Central and Eastern Europe: an Exploratory Study

1. Aim and Research Questions

The main aim of the research is to explore how PFCs understand and use sport strategies, and how they communicate, create, implement, and evaluate the strategies. Sport strategy, in this context, refers to the strategy used by the sport departments of PFCs. Sport strategy, which is perceived as a functional strategy of an organization, should contribute to the achievement of the overall goals of professional football clubs.

The study aims to answer two research questions:

1. How do PFCs understand sport strategy?
2. How is the sport strategy created, communicated, implemented, and evaluated?

2. Theoretical Background and Literature Review

Although it is said that if you do not have superior resources, you should have a strategy (Draebye, M. 2020), this is not always the case with regard to Professional Football Clubs. In fact, the notion of a sport strategy has not been particularly popular among PFCs' managers in the CEE region, especially those operating within limited economic resources. Sport strategy in football club management has not been widely researched by academics either, although some studies point at certain characteristics, which should be a part of a sport strategy. According to Kase et al. (2006), management of football-related activities and the distribution of roles and responsibilities are essential for effectiveness of PFCs strategic management. Forslund (2017), who was exploring innovations in the activities of PFCs in Sweden, distinguished three key dimensions of sport strategies: 1) building the squad by acquiring expensive or cheap players, 2) creating a squad

consisting of experienced or inexperienced players 3) enhancing “the team around the team”. Hammer and Davidsen (2021) emphasized a role of a strategy in the sustainable development of PFCs, which should be based on strategic goals set forth by the club management. Zülch et al. (2023) have provided a complex analysis of management practices of the German Bundesliga clubs’, which can be divided into four groups based on their strategic positioning.

3. Research Design, Methodology and Data Analysis

As the research is exploratory in nature, qualitative research methods have been applied. The research process consisted of two stages. In the first stage, data was gathered through semi-structured interviews with seventeen sporting directors, managers, and experts in professional football clubs across Central and Eastern European leagues, namely Poland, Czech Republic, Latvia, Ukraine, Serbia, Romania and Hungary. In the second stage, a thematic analysis of the material gathered in the first stage, combined with the literature review, was conducted to explore how PFCs understand their own strategies and how the strategies are created, communicated, implemented, and evaluated.

4. Results/Findings and Discussion

Findings reveal significant variation in strategy formulation, with some clubs adopting formalized, vision-driven approaches while others relying on emergent strategies shaped by resource limitations. Youth development, squad composition, and player recruitment are central to strategy implementation, supported increasingly by data-driven methods. Financial constraints heavily influence strategic choices, often prioritizing survival over long-term planning. Stakeholder dynamics, particularly owner and sponsor influence, were found to shape decision-making processes significantly.

Challenges in strategy communication and evaluation were also identified. Internally, clear communication fosters alignment, while externally, clubs limit the dissemination of plans to avoid reputational risks. Evaluation methods range from league positions to advanced metrics like expected goals (xG) and youth development indicators.

This study extends emergent strategy theory and the resource-based view (RBV) to the football context, emphasizing the role of stakeholder alignment. It offers practical insights for PFC managers, particularly in resource-constrained settings, highlighting the importance of strategic clarity, youth development, and collaboration. Limitations include the

regional focus and reliance on self-reported data, suggesting future research directions in comparative and longitudinal studies to further understand strategic management in football.

5. Conclusion

This study provides a foundational understanding of how PFCs in the CEE region conceptualize and implement sport strategies. By integrating insights from the literature and empirical findings, it highlights the multifaceted nature of strategic management in professional football. Future research should build on these findings to deepen our understanding of the challenges and opportunities faced by PFCs, ultimately contributing to the development of more effective and sustainable strategies in the competitive landscape of professional football.

Key words

strategy, management, football

References

Davidson, M., & Hammer, D. (2021). How hard can it be? Strategies in football - on and off the pitch. First Zuma e-book edition 2021.

Draebye, M. (2020). Strategic management in football organisations. In S. Chadwick, D. Parnell, P. Widdop, & C. Anagnostopolulos (Eds.), *Routledge Handbook of Football Business and Management*. Routledge.

Forslund, M. (2017). Innovation in soccer clubs—the case of Sweden. *Soccer and Society*, 18(2–3), 374–395. <https://doi.org/10.1080/14660970.2016.1166768>

Kase, K., Gómez, S., Urrutia, I., Opazo, M., & Martí, C. (2006). REAL MADRID-BARCELONA: BUSINESS STRATEGY V. SPORTS STRATEGY, 2000-2006. In University of Navarra, OP no 06/12-E, June 2006

Zülch, H., Palme, M., & Jost, S. P. (2023). Management quality of professional football clubs: the Football Management (FoMa) Q-Score 2023. HHL Working Paper No. 202, August 2023

Malichova, E., Durisova, M., & Kucharcikova A. (2016). The Influence of Selected Tools of Economic Policy on Managerial Decision Making

on Investments. Innovation Management and Education Excellence Vision 2020: From Regional Development Sustainability To Global Economic Growth, Vols I - VI, p.3752-3762, Milan, Italy, MAY 04-05, 2016. ISBN: 978-0-9860419-6-9

Mills, M., Oghazi, P., Hultman, M., & Theotokis, A. (2022). The impact of Brand Communities on public and private brand loyalty: A Field Study in professional sports. *Journal of Business Research*, 144, 1077-1086. <https://doi.org/10.1016/j.jbusres.2022.02.056>

INTRODUCING LATEST SPORTS TECHNOLOGY TO CONSUMER USE

Gabrisova, Ivana¹; Koman, Gabriel¹

¹University of Zilina, Slovakia

Abstract

This study examines the transition of contemporary sports technologies from professional environments to daily life. Although professional sports have consistently led in the adoption of advanced technology, the primary problem is discerning which technologies are viable for widespread consumer application and which are, on the other hand, not likely to succeed. This study examines the migration of sports-related technological innovations, such as wearable technology and artificial intelligence (AI), from elite sporting contexts to the broader public.

Initial studies defined sports technology as tools designed to enhance human interaction and athletic performance in sports. That may encompass technical innovations aimed at enhancing athlete training and performance and systems designed to assist referees in making more accurate decisions during games. Technology integration in sports has evolved significantly over recent decades due to advancements in computer science and information technology, resulting in transformative changes in athlete performance, coaching strategies, and fan engagement. AI applications, including player movement tracking and predictive injury assessment, have become integral to elite sports. Wearable technology, such as fitness trackers and heart rate monitors, has become increasingly popular among professionals and consumers. The rising market demand for wearable fitness technology and AI-driven coaching tools indicates an increasing acceptance of technology in sports and fitness. However, concerns persist about the accessibility of these tools for non-professional users.

This study employs a qualitative content analysis methodology, examining contemporary academic literature and case studies regarding the implementation of sports technology. This research utilises secondary data sources to analyse trends in the adoption of sports technology. A comparative analysis framework was used to identify critical technologies that have effectively transitioned from elite sports to consumer markets. The different sports technologies

penetrating the market may be classified into three primary categories: (1) wearable technology for fitness tracking, (2) AI-driven performance monitoring, and (3) tools for injury prevention. This study assesses the influence of cost, accessibility, and user-friendliness on public willingness to adopt these innovations. The methodological approach facilitates a thorough understanding of the sports technologies most likely to be integrated into everyday fitness routines and those that remain exclusive to elite athletes due to financial and technical limitations.

The findings reveal that although numerous sports technologies have effectively entered mainstream consumer markets, certain technologies continue to be restricted to professional athletes because of elevated costs, intricate infrastructure, or specialised applications related to specific sports. Wearable technology, including fitness watches and heart rate monitors, has achieved significant consumer adoption. Devices such as WHOOP and GPS-enabled watches offer users immediate access to fitness data, facilitating the monitoring of health metrics. Success is attributed to affordability, ease of use, and compatibility with mobile applications. Nevertheless, advanced AI tools like SportVU and MySwing Professional are not affordable for the general public because of their specialised characteristics and high costs. Injury prevention technologies, such as biometric sensors, have been introduced to the consumer market, enabling users to monitor movement efficiency and assess injury risk. Professional-grade solutions, such as advanced helmets and hydration monitoring systems, are primarily utilised in niche markets, specifically within contact sports or elite training settings. Barriers to widespread adoption include the high cost of advanced sports technology, data privacy concerns, and the technical complexity of AI-based systems. Consumers emphasise convenience, cost-effectiveness, and prompt health advantages in selecting wearable fitness products. The evolution of the sports technology market suggests that specific high-end innovations may be adapted for consumer use; however, their current complexity and cost present substantial obstacles to widespread adoption.

The research indicates that modern sports technologies present valuable tools for improving public health and fitness; however, their effective integration into daily life necessitates careful consideration of multiple factors to guarantee their benefits and accessibility for all individuals.

Adopting these technologies in strategic sports management within Central and Eastern European countries remains in a developmental stage. Economic disparities, technological infrastructure, and cultural attitudes towards technology significantly influence the rate and extent of adoption. Policymakers and sports organisations should promote digital literacy by educating the public on the practical and safe utilisation of sports technologies, ensuring equitable access, and safeguarding data privacy. Future research should conduct longitudinal studies to evaluate the long-term effects of these technologies on public health and examine strategies to mitigate potential risks. Further studies could investigate the adoption of sports technology in everyday fitness and health applications within emerging markets, specifically in Central and Eastern Europe.

This study contributes to the existing literature on sports technology by offering insights into its potential for widespread adoption. Analysing the factors that promote or obstruct the adoption of sports technologies among non-athletes is essential for influencing the future of digital health and fitness sectors.

Key words

Sports technology; Information and Communication Technology; Artificial intelligence; Sports Management

Funding

Funded by the EU NextGenerationEU through the Recovery and Resilience Plan for Slovakia under the project No. 09I05-03-V02-00011

References

- Ding, P. (2019). Analysis of Artificial Intelligence (AI) Application in Sports. *Journal of Physics: Conference Series*, 1302, 032044. <https://doi.org/10.1088/1742-6596/1302/3/032044>.
- Magera, F., & Johan Vounckx. (2018). Artificial Intelligence for the automation of robotic cameras in live sports. 521, 1–11. <https://doi.org/10.5594/m001816>.
- Nadikattu, R. R. (2020). IMPLEMENTATION OF NEW WAYS OF ARTIFICIAL INTELLIGENCE IN SPORTS. *Journal of Xidian University*, 14(5). <https://doi.org/10.37896/jxu14.5/649>.

Pobiruchin, M., Suleder, J., Zowalla, R., & Wiesner, M. (2017). Accuracy and Adoption of Wearable Technology Used by Active Citizens: A Marathon Event Field Study. *JMIR MHealth and UHealth*, 5(2), e24. <https://doi.org/10.2196/mhealth.6395>.

Ratten, V. (2019b). Usage of Sport Technology. *Sports Technology and Innovation*, 35–49. https://doi.org/10.1007/978-3-319-75046-0_3.

Wei, S., Huang, P., Li, R., Liu, Z., & Zou, Y. (2021). Exploring the Application of Artificial Intelligence in Sports Training: A Case Study Approach. *Complexity*, 2021, 1–8. <https://doi.org/10.1155/2021/4658937>.

SPORT EVENT SECURITY: HOW TECHNOLOGY HELPS PREVENT INCIDENTS

Findrikova, Dominika¹; Kubina, Milan¹

¹University of Zilina, Slovakia

Abstract

Nowadays, the security of various events is key to ensure that participants and spectators feel safe to attend these events. This is especially important at sporting events, where fans from different countries and fans of different teams often come together.

When it comes to the physical security of sporting events, there are a multitude of risks that can occur during a sporting event. These risks may arise from the participants in these events, but they may also present a potential target for attacks.

When securing a sporting event, whether in terms of cyber security or physical security, care must be taken to ensure that the rights of the people attending the event are not compromised. There are a number of possible ways to secure these events in a way that respects fundamental human rights.

To begin with, organisers need to identify vulnerabilities that may be the site of a potential security incident. These are usually places such as car parks, entrances or toilets. They then need to prepare a plan on how to protect each place in a way that does not restrict people and their rights. You also need to prepare concrete steps to avoid or stop these security incidents very quickly.

The first line of protection is certainly metal detectors and scanners, which help the organisers to identify the presence of metal, i.e. thanks to their use it is possible to prevent the use of weapons at a sparring event. In the same way that such things cannot be taken on a plane, thanks to these scanners they will not be able to be taken to a sparring event either. This will increase the safety of the spectators, and they can feel safer because of it.

As far as the Slovak environment is concerned, there is a legislative coverage of the issue of the provision of jury events. This is provided for in Act No. 1/2014 Coll., which is effective from August 2024. This Act states what organisers are obliged to ensure when organising sporting

events. It speaks about the obligation to introduce camera systems and also about the use of other information technologies. It also talks about the monitoring of risky fans. Decree of the Ministry of the Interior of the Slovak Republic No. 247/2014 Coll. also speaks about camera systems. In the Netherlands, a system of preventive fan tracking is in place to help identify, register, classify, monitor, profile and punish at-risk fans. However, this system has implications for the civil liberties of these fans. Thanks to these CCTV systems, it is possible to monitor what is happening outside the stadium or the place where this event is taking place, but also directly inside. This can help a quicker response to a possible security incident.

In terms of the actual entry to the event, it is equally important to monitor this and keep track of how many spectators have come or gone, so that organisers can keep track of how many people are at the event. It is also possible to use biometrics. It is also possible to use Radio Frequency Identification, i.e. wristbands or tickets with a chip, which can greatly speed up the identification and monitoring of spectator entry into different areas of the venue.

Nowadays, the use of drones is becoming more and more widespread. They can be seen not only monitoring the sports performance itself (alpine skiing) but also can monitor the crowd of fans. Because the drone is mobile, it can cover a larger area where the spectators are. This makes it more likely to pick up the potential risk of a security incident.

It is also important to bear in mind the potential risk of fires that may be started by smoking if it is allowed at the venue, or if there are disturbances. Here it is possible to use sensors that can monitor whether there is smoke in the venue, or that can monitor temperature, humidity or pressure.

From the point of view of the organisers, it is necessary to think that if they want to have a sufficiently secured event, modern technology is not enough. It needs people who know and can work with these technologies. These employees need to be trained in working with technology as well as in handling critical situations. They need to know how to recognise and prevent possible disturbances or possible panic that may occur in a crowd. They also need to know how to safely manage the movement of spectators, especially at exits and in the event of any risky situation. Finally, they must know how to operate communication equipment to be able to communicate with other members of the team.

Of course, there are ethical questions about whether it is OK to monitor visitors at sporting events and whether their freedom is being infringed. But on the other hand, there are many benefits to having movement and behaviour monitored. The risk of a security incident is reduced as all venues are visible to the organisers. There is also the advantage of a quicker response in the event of an incident occurring. It is also possible to react more quickly should a spectator's health deteriorate.

Key words

cybersecurity, sport event, technology, risks

Funding

Funded by the EU NextGenerationEU through the Recovery and Resilience Plan for Slovakia under the project No. 09I05-03-V02-00011

References

Alahmari, S., Renaud, K., & Omoronyia, I. (2022). Moving beyond cyber security awareness and training to engendering security knowledge sharing. *Information Systems and E-Business Management*, 21, 123–158. <https://doi.org/10.1007/s10257-022-00575-2>

Jozef Dzurnak. (2024, November 12). Ako turnikety zlepšujú kontrolu prístupu na športových a kultúrnych podujatiach. - Biometric. https://biometric.sk/ako-turnikety-zlepsuju-kontrolu-pristupu-na-sportovych-a-kulturnych-podujatiach/?utm_source=chatgpt.com

Li, J., Cheng, R., Zhu, J., Tian, Y., & Zhang, Y. (2021). Wireless secure communication involving UAV: an overview of physical layer security. *MATEC Web of Conferences*, 336, 04005. <https://doi.org/10.1051/matecconf/202133604005>

Menaker, B. E., Sheptak, D., Kurland, J., & Tekin, D. (2021). Rethinking Sport Event Security: From Risk Management to a Community Driven Approach. *Journal of Global Sport Management*, 9(2), 1–23. <https://doi.org/10.1080/24704067.2021.1929388>

Spaaij, R. (2013). Risk, security and technology: governing football supporters in the twenty-first century. *Sport in Society*, 16(2), 167–183. <https://doi.org/10.1080/17430437.2013.776249>

Zbierka zákonov Slovenskej republiky. (2015). Legislatíva. https://static.slov-lex.sk/static/SK/ZZ/2014/274/vyhlasene_znenie.html

Zbierka zákonov Slovenskej republiky. (2024). Legislatíva. <https://static.slov-lex.sk/static/SK/ZZ/2014/1/20240801.html>

COMPARATIVE ANALYSIS OF SPRINTERS' PERFORMANCE IN THE 100 M BEFORE AND AFTER THE INTRODUCTION OF THE WORLD RANKING

Pisecna, Monika¹, Lednický, Anton¹, Cihová, Iveta¹

¹ Faculty of Physical Education and Sport, Comenius University Bratislava

Abstract

The research focuses on a comparative analysis of the performance of elite sprinters in the 100m, in order to investigate the impact of the introduction of world ranking on the qualification process for major track and field championships. The main aim of the study is to compare performance trends before and after the introduction of the world ranking, with an emphasis on identifying changes in times achieved and their implications for the need for professional sport management. In the current context of tightening entry standards and increasing competition, track and field managers are believed to play a key role in ensuring qualification for major championships.

The research was conducted in a national and international track and field environment, with the research population consisting of three main data groups. The first group included the top 100 times achieved in the 100m in each year from 2014 to 2024, obtained from the official World Athletics website. The second group of data focused on the 8 best times achieved in the 100 m final at the European Championships, World Championships and Olympic Games over the same time period – again, we obtained the data from the World Athletics website. The third group included data for the top 10 times achieved by Slovak sprinters between 2014 and 2024. We obtained this data from the Slovak Athletic Federation website.

Various statistical methods were used to analyse the data. Normality of data was tested using Shapiro-Wilk and Kolmogorov-Smirnov test. Kruskal-Wallis H test and analysis of variance (ANOVA) were used to compare means between multiple groups. These methods allowed the identification of significant differences in times achieved between years and between major track and field championships.

The key results of the study indicate a significant trend of increasing performance in the 100 m over the study period. Analysis of the top 100 times from the rankings showed a gradual decrease in average times, indicating an increasing level of competition. We also found that the average of the 100 best times was better after the introduction of the

world ranking, despite having the worst average performance in 2020 due to the Covid-19 pandemic.

By comparing with the final times from the major track and field championships, we found that the best performances were run by athletes after the introduction of the world rankings, however, the average of the top 8 athletes from the finals of the championships in question were better than some of the averages before the introduction of the world rankings - the best average top 8 times were run by athletes at the 2018 European Championships (10.073 s), the 2015 World Championships (9.937 s) and the 2024 Olympic Games (9.839 s). The performance of Slovak sprinters has also improved, with the average performance in the 100 m improving by almost 1 tenth if we compare the level of Slovak sprinters before and after the introduction of the world ranking. Surprisingly, Slovak sprinters did not have the worst average values in the 100 m during the Covid-19 pandemic, but during the 2016 Olympic season.

The research confirmed that the introduction of the world ranking had a significant impact on the qualification process. Sprinters who rely on qualifying for major track and field championships through rankings must perform consistently high throughout the season. This leads to an increased need for strategic planning and professional management. Track and field managers thus play a key role in optimizing the planning of the competitive calendar and meeting the needs of sprinters and their coaches. However, the role of the track and field manager is a challenging one in the field, as to get their sprinters to a competition where they can score world ranking points, they need to have built an extensive network of contacts between organisers and track and field managers, as well as having established a strong reputation.

The study's findings suggest that without professional track and field management, it is increasingly difficult for sprinters to qualify for major track and field championships. Increasing levels of competition and tightening limits require a comprehensive approach that includes not only training, but also strategic planning and career management.

In conclusion, sport management is becoming an essential part of success in elite track and field. In the context of an ever-evolving sporting environment, it is crucial for sprinters to have a professional track and field manager to help them reach their maximum potential.

Key words

track and field, sprinters, 100 m, performance, world ranking

Funding

The article was prepared with the support of the project APVV-20-0481 - Sustainability strategy of sports organization in the Slovak Republic

References

BAŇOVIČOVÁ, M., 2020. Práca športového manažéra v atletike. Bratislava. Diplomová práca. Univerzita Komenského v Bratislave, Fakulta telesnej výchovy a športu, Katedra edukačných a humanitných vied o športe.

BAŇOVIČOVÁ, M. a M. HOLIENKA, 2023. Job satisfaction of track and field managers depending on the hours worked per month. Revista Gestao & Tecnologia – Journal of Management and Technology, 23 (4), 420-431. ISSN: 2177-6652.

EUROPEAN ATHLETICS, 2025. European Athletics Championships. [online]. [cited 10 March 2024]. Available at: <https://www.european-athletics.com/competitions/european-athletics-championships/overview>

PÍSEČNÁ, M., TRULÍKOVÁ, V., MITAŠÍK, P., LEDNICKÝ, A., KOVÁČ, K. & M. MATUŠICA, 2025. Overview of international track and field competitions of the V4 countries and participation of their athletes at major competitions. Slovak Journal of Sport Science, 9(2), 74-85. DOI: 10.24040/sjss.2024.9.2.74-85

PUPIŠ, M., 2022. Nové kvalifikačné kritériá na vrcholné podujatia, ich plusy a mínusy po prvých rokoch skúseností. Vedecká konferencia ATLETIKA, 1 (1), 5 – 9. ISBN 978 80-8251-051-0.

SLOVENSKÝ ATLETICKÝ ZVÄZ, 2025. Štatistiky - Sezónni lídri [online]. [cited 10 March 2025]. Available at: <https://statistika.atletika.sk/statistiky/sezonni-lidri/>

WORLD ATHLETICS, 2023. Competition Performance Rankings [online]. [cited 10. March 2025]. Available at: [https://worldathletics.org/records/competition-performance-rankings?year=2023&sort By=score&page=1](https://worldathletics.org/records/competition-performance-rankings?year=2023&sort%20By=score&page=1) WORLD ATHLETICS, 2023. World Rankings - Introduction [online]. [cited 10. March 2025]. Available at: <https://worldathletics.org/world-rankings/introduction>

FROM ENGLAND TO BELARUS: UNEQUAL TRANSFER MARKETS IN EUROPEAN FOOTBALL

Metelski, Adam¹

¹ Poznań University of Economics and Business, Poland

Abstract

Aim and Research Questions

This study examines the transfer markets in seven European countries representing different league levels: top-tier, mid-tier, and lower-tier leagues. The primary objective is to compare the dynamics of player transfers in leagues with varying financial and sporting positions within European football. The study investigates the key characteristics of paid transfers, including transfer fees, player age, dominant playing positions, and the most frequent transfer directions. The main research questions is: How does the UEFA ranking position of a league influence the transfer market?

Theoretical Background and Literature Review

The research builds on previous studies examining transfer market in football (Frick, 2011; Majewski, 2016; Poli et al., 2020). The literature highlights how financial power impacts transfer activity, with wealthier leagues attracting established stars, while mid-tier leagues focus on developing and selling young talent (Poli et al., 2024). Previous studies on the football transfer market have predominantly focused on top-tier leagues, with limited attention given to mid-tier competitions and even less to leagues ranked at the lower end of the UEFA hierarchy. This study aims to address this gap by including leagues from different ranking positions, also those from the lower end of the UEFA coefficient list. By doing so, it provides a broader perspective on the structural differences in transfer activity across European football and highlights how financial constraints shape transfer market in leagues with limited resources.

Research Design, Methodology and Data Analysis

The study analyzes paid transfers in seven leagues with different UEFA rankings: England, Belgium, Norway, Poland, Moldova, Iceland and Belarus. The dataset includes the 100 most expensive transfers in each country (or all available cases for leagues with fewer transfers). The

study examines key variables such as average transfer fee, dominant player positions, transfer destinations, and club activity.

Results/Findings and Discussion

The findings reveal financial and structural disparities across European leagues. The Premier League in England dominates in terms of financial power, with an average transfer fee of €64.8M and 84% of transfers being incoming, demonstrating the league's attractiveness and purchasing strength. English clubs tend to sign established players at their career peak (average age: 24.04), particularly attacking players (45%), reflecting a strong emphasis on offensive reinforcement. Notably, Chelsea alone was responsible for 25% of England's most expensive transfers, indicating the role of a few financially dominant clubs in shaping market trends. In mid-tier leagues, such as Belgium and Poland, transfer patterns are significantly different. Belgium (€12.2M) and Poland (€2.9M) engage in lower-value transactions and primarily export young talent (average age: 22.7). While Belgian clubs have stronger financial leverage, Polish clubs exhibit a clear developmental model—transferring young players to higher-ranked leagues, particularly to Italy (20%). The relatively low percentage of incoming transfers in Poland (4%) indicates that the Ekstraklasa primarily serves as a stepping stone for players aiming for stronger European competitions. Lower-tier leagues, such as Moldova, Belarus, and Iceland, exhibit a completely different transfer market dynamic. With minimal transfer fees (€0.34M in Moldova, €0.15M in Iceland) and a high reliance on regional transfers, these leagues have limited financial influence on the international market. Iceland, for example, shows a distinctive pathway, where young players (average age: 21.26) frequently move to Norway (32%), illustrating a stepping-stone effect where talent flows through progressively stronger leagues before potentially reaching top-tier destinations. A strong negative correlation ($r = -0.71$, $p < 0.001$) between UEFA ranking and average transfer fee confirms that leagues positioned higher in UEFA's hierarchy engage in significantly more expensive transfers. The data also supports the idea of a "transfer pyramid", where clubs from top leagues poach talent from mid-tier leagues, which, in turn, acquire players from lower-ranked competitions. Additionally, club-level dominance in transfer activity varies considerably. Sheriff Tiraspol (Moldova) and BATE Borysov (Belarus) accounted for over 50% of the most expensive transfers in their respective leagues, revealing an extreme concentration of transfer power in a single club. In contrast, leagues like Belgium and Poland have a more distributed transfer market, with multiple clubs actively

participating in high-value transactions. These findings demonstrate that the transfer market is not a level playing field, with significant structural inequalities between leagues.

Conclusion

This study highlights the structural inequalities in European football's transfer market. The financial power of top-tier leagues allows them to dominate global player recruitment, while mid-tier and lower-tier leagues serve as talent suppliers. The findings provide valuable insights for future research on financial disparities in football and can inform policy discussions on competitive balance in European leagues. Understanding these market dynamics is crucial for shaping sustainable development strategies for leagues outside Europe's top five.

Key words

football transfers, financial disparities, UEFA league hierarchy

References

- International Journal of Sport Finance, 6, 87–118.
- Majewski, S. (2016). Identification of factors determining market value of the most valuable football players. *Journal of Management and Business Administration. Central Europe*, 24(3), 91–104. <https://doi.org/10.7206/jmba.ce.2450-7814.177>
- Poli, D. R., Ravenel, L., & Besson, R. (2020). Scientific evaluation of the transfer value of football players. <https://football-observatory.com/IMG/pdf/mr53en.pdf>
- Poli, R., Besson, R., & Ravenel, L. (2024). Football mobilities: a global player transfer market. In J. Maguire, K. Liston, & M. Falcous (Eds.), *Handbook on Sport and Migration*. Emerald Group Publishing Ltd.

EASM 2025 CONFERENCE IN BUDAPEST: PARTICIPATION AND SCHOLARSHIP OPPORTUNITIES

Géczi, Gergely¹, István, Péter¹, Égi, Krisztina¹

¹ Hungarian University of Sports Science, Hungary

Abstract

In early September 2025, the Hungarian University of Sports Science will host the annual EASM (European Association for Sport Management) conference that attracts 500+ professionals from a wide range of sports management fields every year, representing many countries worldwide. The aim of the Conference is to contribute to the field of sport management, both science and practice. We therefore encourage scientific and practice-oriented professionals to participate our Conference, as it is a great opportunity to contribute and to network.

The main topic of the Conference is sustainability, which is of increasing importance in sport management of the 21st century. It is expected that the contributions and the knowledge sharing will foster the integration of sustainability as a key factor in decision-making in the everyday practice of decision-makers.

The conference offers early-bird participation fees and scholarships, and a variety of programs to fit different types of participants. The Conference offers a student seminar for BSc and MSc sport management students, which is an additional 4-day program before the Conference, and after that, the students participate on the Conference as well. The Conference also offers a PhD Seminar, which is organized for PhD students, offering a 2-day program.

For participants, two types of scholarships are offered:

1. Hungarian University of Sports Science (HUSS) Scholarship: A special scholarship program that was established for university lecturers and researchers from Central and Eastern Europe, providing a discounted one-day registration fee to facilitate their participation in the conference.
2. EASM Early Career Scholarship: This scholarship was established for PhD students and early career researchers from lower income countries and for traditionally less represented ones within EASM.

The early bird registration for the conference closes on 29th June, 2025 for full package participants, while student and PhD seminars application closes on the same day. We encourage all who is willing to participate to browse through the Conference's website (<https://easm2025.com/en/>).

Key words

EASM, Budapest, Sport Management Conference

SPORTS IN MUNICIPALITIES – WHAT THE DATA SAYS AND WHERE WE ARE HEADED

Michal Šarlák¹, Michal Varmus¹

¹University of Zilina, Slovakia

Abstract

This study examines the financing and governance of sports at the municipal level in Slovakia through a comprehensive mixed-methods research design. Combining statistical analysis, structured interviews, questionnaires, and confirmatory factor analysis, the research addresses both quantitative and qualitative dimensions of the problem. Findings reveal that local governments are the primary source of public sports funding, accounting for more than 50% of the national total; however, per capita spending on sports (€53) remains considerably lower than the European Union average (€140). The study identifies critical shortcomings, including insufficient strategic planning, inadequate digitalization of data collection and evaluation processes, disparities in financial support, and a general lack of transparency across municipalities. In response, the research proposes a validated model of sports governance for local governments, grounded in empirical evidence and best practices. This model aims to enhance financial efficiency, promote strategic management, and support evidence-based policymaking. By strengthening transparency and addressing systemic weaknesses, the model seeks to foster healthier, more active, and socially cohesive communities. The final phase of the research, including full model validation, is expected to be completed by 2026.

Key words

local governments, sports, sports management, funding

Funding

Funded by the EU NextGenerationEU through the Recovery and Resilience Plan for Slovakia under the project No. 09I05-03-V02-00011.

References

Hoye, Russell, Aaron Smith, Matthew Nicholson, and Bob Stewart. Sport Management: Principles and Applications. 3rd ed. London: Routledge, 2015.

Girginov, Vassil. Governance and Policy in Sport Organizations. London: Routledge, 2011.

Covell, Daniel, Sharianne Walker, Jeffrey J. Siciliano, and Peter Hess. Managing Sports Organizations: Responsibility for Performance. 2nd ed. London: Routledge, 2019.

Crosset, Todd, and Mary A. Hums. History of Sport Management. Champaign, IL: Human Kinetics, 2018.

Organisation for Economic Co-operation and Development (OECD). The Contribution of Sport to Regional Development. Paris: OECD Publishing, 2020.

European Commission. Study on the Contribution of Sport to Regional Development through the Structural Funds. Luxembourg: Publications Office of the European Union, 2023.

World Association for Sport Management (WASM). Mission Statement. Accessed April 27, 2025. <https://www.worldsportsmanagement.org/mission>.

Andrew, Damon P. S., Paul M. Pedersen, and C. David McEvoy. Research Methods and Design in Sport Management. 3rd ed. Champaign, IL: Human Kinetics, 2023.

Hassan, David. Managing Sport: Social and Cultural Perspectives. London: Routledge, 2018.

Slovak Olympic and Sports Committee. Annual Report on Sport Development in Slovakia. Bratislava: Slovak Olympic and Sports Committee, 2022.

PREPARATION OF CURRENT PROFESSIONAL ATHLETES FOR THEIR FUTURE CAREERS OUTSIDE SPORTS

Varmus, Michal¹; Adámik, Roman¹; Rádiková Jana¹; Bryndza, Radovan¹; Oršula Andrej¹

¹University of Zilina, Slovakia

Abstract

An athlete's career is undoubtedly fascinating to many people. Being able to pursue the sport they love as a profession is amazing. However, the real challenge comes when their athletic career comes to an end – whether by choice or due to circumstances beyond their control. This study focuses on precisely that issue: the transition from a professional sports career back to everyday life.

The authors posed three main research questions:

1. What are the key differences in how current and former athletes perceive their preparation for a career after retiring from sports
2. How does education impact athletes' success in their careers after retiring from sports?
3. Which fields of education are most attractive to athletes?

Several factors influence the transition from an athletic career to everyday life. Key examples include the type of sport and injuries. Research shows that team sport athletes tend to reach their peak performance later and sustain it for longer than those in individual sports. This is largely because they are more likely to balance their athletic careers with professional work, allowing them to secure better financial stability and career opportunities. Team sport athletes who invested more in their education and had a well-planned transition out of sports adapted much more successfully to life after their careers. They are also more likely to stay involved in sports – whether by participating in veteran competitions or engaging as spectators – keeping sports an integral part of their lives even after retiring from professional play. When it comes to financial struggles, American football players face the biggest challenges. A staggering 78% of them experience financial difficulties within two years of retirement – significantly higher than athletes in other sports (de Subijana et al., 2020).

Education plays a crucial role in the transition between careers. A study from Australia found that 46.4% of athletes struggle with mental health issues, including depression (27.2%), eating disorders (22.8%), general psychological distress (16.5%), social anxiety (14.7%), generalized anxiety disorder (7.1%), and panic disorder (4.5%). Meanwhile, a 2019 review of existing research found that symptoms of poor mental health among former elite athletes ranged from 16% for anxiety to 26% for anxiety and depression. Over the course of three seasons (spanning more than 28,000 games), the study also revealed that higher levels of engagement in retirement planning were linked to improved on-field performance and longer playing careers (Olympics, 2024).

An athlete's career is typically short. According to RBC Wealth Management, athletes in North America's four major men's leagues – NBA, MLB, and NHL – retire, on average, before turning 30 (Milord, 2022). The average NFL career lasts just 3.3 years, making it particularly brief. NFL players, in particular, endure intense impacts and collisions, making it one of the most physically demanding sports leagues in the world. Due to the high risk of injury, many athletes are forced into early retirement or miss significant amounts of playing time (Gough, 2024).

One of the key recommendations for a smoother transition from professional sports to a traditional career is education. The 2022 study by Robnik et al. (2020) aimed to examine the factors influencing the quality of career transition among Slovenian elite and Olympic athletes, as well as their social status and employment after retiring from competitive sports. While many athletes had achieved a sufficient level of education, the study found that this alone did not guarantee a seamless transition into the workforce. The results highlighted the crucial role of education in shaping the quality of career transitions. The study also emphasized the importance of developing a dual-career model, which has become increasingly popular among athletes.

The data clearly shows that elite athletes have access to various career transition tools to help them move into their second careers, as well as specific needs that must be addressed during this transition (Richardson & McKenna, 2020).

The end of a sports career doesn't have to be entirely negative. It can be an opportunity for athletes to explore new paths that bring them fulfilment and a sense of purpose. They can focus on building new social connections, adopting different lifestyles, and discovering hobbies that bring them joy. Additionally, they can pursue career

interests they may not have had the time to fully develop during their athletic careers, allowing them to reconnect with passions they once had to put on hold (Knights et al., 2019).

The study adopts an exploratory qualitative approach. Individual, structured interviews with current and former professional athletes were conducted. This methodology will allow for the identification of key factors influencing the transition from a sports career to civilian life, with the possibility of adapting the questions to the course of the discussion and the specific experiences of the respondents. The final results will be presented at the conference.

Key words

sports, dual career, education, retirement

Funding

Funded by the EU NextGenerationEU through the Recovery and Resilience Plan for Slovakia under the project No. 09I05-03-V02-00011.

References

de Subijana, C. L., Galatti, L., Moreno, R., & Chamorro, J. L. (2020). Analysis of the Athletic Career and Retirement Depending on the Type of Sport: A Comparison between Individual and Team Sports. *International Journal of Environmental Research and Public Health*, 17(24), 9265. <https://doi.org/10.3390/ijerph17249265>

Gough, C. (12. 3 2024). Average playing career length in the National Football League. Statista. Available online at: <https://www.statista.com/statistics/240102/average-player-career-length-in-the-national-football-league/>

Knights, S., & Sherry, E., Mandy Ruddock-Hudson, M., & O'Halloran, P. (2019). The End of a Professional Sport Career: Ensuring a Positive Transition. *Journal of Sport Management*, 2019, 33, pp. 518-529. <https://doi.org/10.1123/jsm.2019-0023>

Milord, J. (2022). The next play: How pro athletes find their post-retirement careers. Available online at: <https://www.linkedin.com/pulse/next-play-how-pro-athletes-find-post-retirement-careers-joseph-milord/>

Olympics. (2024). Life after sport: Why Athletes need to prepare. Available online at: [www.olympics.com:](https://www.olympics.com/)

<https://www.olympics.com/athlete365/articles/a365-topic-career-plus/life-after-sport-why-athletes-need-to-prepare>

Richardson, J., & McKenna, S. (2020). McKenna, S.. An exploration of career sustainability in and after professional sport. *Journal of Vocational Behavior*, 177, 103314. <https://doi.org/10.1016/j.jvb.2019.06.002>

Robnik, P., Kolar, E., Štrumbelj, B., & Ferjan, M. (2022). Dual Career Development Perspective: Factors Affecting Quality of Post-sport Career Transition of Employed Olympic Athletes. *Frontiers in Psychology*, 12 – 2021. <https://doi.org/10.3389/fpsyg.2021.800031>

A SYSTEMATIC VIEW OF EDUCATION AND DEVELOPMENT WITHIN SPORTS MANAGEMENT

Mičiak, Martin¹; Toman, Dominika¹; Poljaková, Tatiana¹; Ivanovič, Klaudia¹; Šimová, Kvetoslava¹; Majchráková, Anna¹; Bystrická, Ivana¹; Murárik, Róbert¹; Furmánek, Tibor¹; Kováčik, Linda¹

¹University of Zilina, Slovakia

Abstract

This project introduces a systematic approach to education and development in sports management, with a focus on athletes transitioning into post-sport careers. It combines theoretical insights from lifelong learning and labour market adaptability with practical applications such as gamification, e-learning, coaching, and mentoring. The proposed model supports the development of both soft and technical skills through personalized and interactive learning tools. Emphasis is placed on collaborative learning, digital platforms, and the use of AI to enhance motivation, skill acquisition, and adaptability. Mental health support is also integrated, recognizing its importance in sustainable career development.

Educational content tailored to athletes is being developed and will be implemented in cooperation with sports organizations. Its effectiveness will be evaluated through real-world testing and feedback collection, with the aim of improving the learning experience and tracking participants' readiness for new professional roles.

Findings confirm the relevance of modern learning methods: up to 44% of the workforce will need reskilling by 2027, while gamified platforms and coaching programs show high effectiveness and engagement. By linking theory with applied methods, this project offers a replicable educational framework to help former athletes succeed beyond the sports field.

Key words

Lifelong learning, digital education, gamification, personalized education

Funding

Funded by the EU NextGenerationEU through the Recovery and Resilience Plan for Slovakia under the project No. 09I05-03-V02-00011.

References

- Al-Ta'ani, Mohammad W. M. (2023). The reality of learning motivation among gifted students in light of active learning strategies. <https://www.webofscience.com/wos/woscc/full-record/WOS:001076466800004>
- Armenia, S., et al. (2024). Improving project management skills by integrating a board game into educational paths. <https://www.sciencedirect.com/science/article/pii/S1472811724000405>
- Baran, M., Clutterbuck, D. (2024). Mentoring as a tool to support innovative work behavior of employees. https://www.researchgate.net/publication/383721063_Mentoring_as_a_tool_to_support_innovative_work_behavior_of_employees
- Armila, P., et al. (2022). Digitalisation and education in the 21st century. <https://link.springer.com/article/10.1007/s42438-022-00347-8>
- Bankins, A., et al. (2024). Artificial intelligence, workers, and future of work skills. <https://www.sciencedirect.com/science/article/pii/S2352250X24000411?via%3Dihub>
- Barz, A., et al. (2024). Students' acceptance of e-learning: extending the technology acceptance model with self-regulated learning and affinity for technology. <https://link.springer.com/article/10.1007/s44217-024-00195-7>
- Cedric, M., Claudepierre, C. (2016). Performance and talent essentials of coaching. https://www.researchgate.net/publication/303246187_Performance_and_Talent_Essentials_of_Coaching
- Carrera, R. M., et al. (2014). Training in companies, permanent training and adult learning: an epistemological approach. <https://www.sciencedirect.com/science/article/pii/S1877042814046898>

IMPROVEMENTS IN THE EMPLOYEE BEHAVIOUR TO INCREASE ORGANIZATION'S CYBERSECURITY UTILIZING SPECIFIC HUMAN CAPITAL DEVELOPMENT ACTIVITIES

Kubina, Milan¹; Adámik, Roman¹; Štaffenová, Nikola¹; Blahová, Barbora¹; Jacko, Adam¹

¹University of Zilina, Slovakia

Abstract

Even sports organizations need to flexibly react to new technological trends, and they need to be proactive when it comes to the challenges of the latest cybersecurity threats. The aim of this study is to identify the relationship between human capital development activities and employee behaviour related to an organization's cybersecurity. The research seeks to determine whether educational activities provided by the organization and leadership engagement from the managers contribute to higher cybersecurity practices. The data for this study was collected via a questionnaire survey with the respondents being employees of the selected Slovak organization.

Human resource management has evolved to a strategic approach to managing an organization's most valuable asset represented by the employees and their human capital. The development of this asset involves a systematic process of improving knowledge, skills, and abilities utilizing diverse learning methods including formal training, e-learning, or gamification. (Cabanová, 2020; Toman and Mičiak, 2024)

Organizations' cybersecurity depends heavily on employee behaviour because human errors significantly contribute to security incidents. Effective cybersecurity training must increase awareness while changing employees' attitudes to this issue as well. Organizations need to implement integrated behavioural strategies, combining system changes, knowledge improvement, and targeted behaviour change initiatives. (Brezula, 2017; Sedlák et al., 2021)

The research findings revealed that employee behaviour and motivation in the context of cybersecurity are influenced by more intricate factors than just role designation or formal organizational policies. A more customized and behaviourally oriented approach is crucial while designing effective human capital development and awareness strategies within the field of sports organizations.

Key words

human potential, learning, cybersecurity

Funding

Funded by the EU NextGenerationEU through the Recovery and Resilience Plan for Slovakia under the project No. 09I05-03-V02-00011.

References

Brezula, J. (2017). Aspekty kybernetickej bezpečnosti na Slovensku a vo svete. *Krízový Manažment*, 16(2), 83–88. <https://doi.org/10.26552/krm.C.2017.2.83-88>

Cabanová, V. (2020). Vzdelanie a vzdelávanie. Available online: https://is.slu.cz/el/fvp/zima2020/UPPVMK001/03_VZDELANIE (accessed on 8 May 2025)

Sedlák et al. (2021). *Kybernetická (ne)bezpečnosť* (1st ed.). Akademické nakladateľství CERM, s. r. o.

Toman, D., Mičiak, M. (2024). *Manažment ľudských zdrojov: Strategické aspekty práce s ľuďmi*. EDIS, UNIZA, Žilina. ISBN 978-80-554-2119-3

EDUCATION OF ATHLETES FOR A CAREER AFTER A SPORTS CAREER

Toman, Dominika ¹; Mičiak, Martin ¹

¹University of Zilina, Slovakia

Abstract

Former athletes often represent a group of unemployed people in the labour market lacking knowledge and skills necessary for employment outside of sports. Therefore, it is highly topical to focus on the process of current athletes' learning and development so that they can be better prepared for the challenges of their future careers after the end of the sports career.

This topic is multifaceted, requiring a combination of perspectives from multiple stakeholder groups. These include the opinions of young athletes, current professional athletes, former athletes, employers outside of sports, and the sports and educational organizations. In our contribution, we studied the interconnections among these perspectives, focusing on the skills the athletes naturally develop during their sports careers, making them attractive for potential future employers. These unique qualities include resilience, discipline, and teamwork. We also studied the process of former athletes' adaptation in organizations employing them after the end of the sports career (Evans, 2023; So, 2024; Masterson, 2023; Mesagno et al., 2024).

For a complex system of current athletes' learning and development to be viable, all the necessary managerial aspects need to be taken care of. Therefore, it is appropriate to use the tools such as RACI matrix to clearly set the responsibilities for individual actors and organizations in this process. The timeframe for the educational efforts can be planned using a Gantt chart and the identified potential risks affecting this process should be mapped and categorized via a risk management matrix.

Key words

education, athletes, career, sport

Funding

Funded by the EU NextGenerationEU through the Recovery and Resilience Plan for Slovakia under the project No. 09I05-03-V02-00011

References

Evans, R. (2023). Why athletes bring a winning mentality to the workplace. LinkedIn. Available online: <https://www.linkedin.com/pulse/why-athletes-bring-winning-mentality-workplace-richard-evans/> (accessed on 5 February 2025).

Masterson, V. (2023). Future of jobs 2023: These are the most in-demand skills now—and beyond. World Economic Forum. Available online: <https://www.weforum.org/stories/2023/05/future-of-jobs-2023-skills/> (accessed on 19 February 2025).

Mesagno, C., Hammond, A. A., & Goodyear, M. A. (2024). An initial investigation into the mental health difficulties in athletes who experience choking under pressure. *Psychology of Sport and Exercise*, 74, 102663.

So, E. (2024). Unlocking the value of work-ready skills from sports. *Jobs for the future*. Available online: <https://www.jff.org/unlocking-the-value-of-work-ready-skills-from-sports/> (accessed on 15 January 2025).