

The role of communication and investment in physical culture and sports as components of a healthy lifestyle

Yaroslav Leonov^{1*}, Oleksandr Lohvynenko², Tetyana Lohvynenko³, Anatolii Kharakhaichuk⁴, Tetyana Kuryllo⁵

¹Department of Physical Culture Management, Kharkiv State Academy of Physical Culture, Kharkiv, Ukraine.

²Department of Theory and Methods of Physical Education and Sport, Faculty of Human Health and Natural Sciences, Drohobych Ivan Franko State Pedagogical University, Drohobych, Ukraine.

³Department of Social Pedagogy and Correctional Education, Faculty of History, Pedagogy and Psychology, Drohobych Ivan Franko State Pedagogical University, Drohobych, Ukraine.

⁴Department of Physical Training and Human Health, Faculty of Pedagogy, Regional College “Kremenchuk A. S. Makarenko Humanitarian and Technological Academy” of the Poltava Regional Council, Poltava, Ukraine.

⁵Department of Physical Education and Sports, Zhytomyr Polytechnic State University, Zhytomyr, Ukraine.

* Correspondence: Yaroslav Leonov; leonov.yaroslav.2017@gmail.com

ABSTRACT

Regular physical exercise is linked to improved health, longevity, and a lower risk of chronic diseases. This study explores the role of communication in promoting a healthy lifestyle through the popularisation of physical culture and sports, and examines the economic impact of such activities. It investigates how communication contributes to promoting a healthy lifestyle through sports and the effectiveness of investments in these areas. The study employed theoretical research methods, including analysis, systematisation, and generalisation of contemporary literature. Sports significantly impact the economies of numerous countries, driving substantial financial investments and employing large workforces. Effective communication is crucial for entrepreneurship in sports, as it enables the creation of strong networks and media engagement, providing essential information for better decision-making. Startups that blend communication and economic strategies have become increasingly popular, with examples like FuboTV, Dream11, and SeatGeek demonstrating success. Investments in professional sports teams are distinctive due to risks such as unpredictable outcomes and fluctuating stock prices. Fans, often small shareholders, tend to prioritize a team's long-term

goals over immediate profit. Additionally, some companies invest in sports not just for financial returns, but also to boost brand recognition and increase product sales.

KEYWORDS

Sports Industry; Sports Business; Football Industry; Sports Products and Services; Sports Market

1. INTRODUCTION

A healthy lifestyle involves effectively and rationally utilising one's life resources (Healthy Lifestyle, 2023) to strengthen, preserve, and, if necessary, restore human health, benefiting the population. It encompasses practical actions to strengthen all bodily systems, prevent diseases, and improve overall well-being.

The main components of a healthy lifestyle include: a healthy and balanced diet; regular and sufficient physical activity; the absence of bad habits; sufficient and quality sleep; mental balance and the ability to control stress levels; personal hygiene; hardening of the body; intellectual, spiritual and moral development; safe working and living conditions.

This article focuses on the importance of regular and sufficient physical activity as a component of a healthy lifestyle. It also explores the potential impact of promoting physical activity and sports on both individual and population health and the economy.

According to the World Health Organization (WHO), the main positive effects of physical activity on health include (WHO, 2022):

- significant benefits for the cardiovascular, central nervous, musculoskeletal, and other body systems;
its role in the prevention and treatment of the most common non-communicable diseases.–
reducing the effects of anxiety and depression;
- improving thinking, learning and decision-making skills;
- ensuring healthy growth and development of young people;
- improving the general well-being of people.

Regular physical exercise has been shown to contribute to better health, increased happiness, longer life expectancy, and a lower risk of cardiovascular and oncological diseases. Additionally, it can promote epigenetic youthfulness. Those who engage in regular physical activity are likelier to maintain a healthy body weight with an average body mass index and a higher ratio of muscle tissue

to fat. Thirty minutes of moderate physical activity per day for five days a week (or 2.5 hours per week) is associated with a 19% reduction in the risk of all-cause mortality compared to no such activity. Increasing the duration to one hour per day (or 7 hours per week) is associated with a 24% reduction (Ruegsegger & Booth, 2017).

It is important to note that improvements in population prognosis, particularly reducing mortality from all causes, are associated with voluntary physical activities such as walking, exercise, and active transportation. However, heavy physical activity in gardening or work, or activity due to a high workload, does not positively affect the body, likely due to a lesser contribution of aerobic exercise during such activities. The significance of engaging in voluntary physical activity is highlighted, even for individuals who perform strenuous physical labour (Bahls et al., 2018).

Regular physical exercise, both in the short term after each session and in the long term through chronic adaptation, promotes increased insulin sensitivity and improves overall systemic metabolism. This significantly reduces the risk of developing chronic metabolic diseases, such as type 2 diabetes and non-alcoholic fatty liver disease (Thyfault & Bergouignan, 2020).

Regular voluntary physical exercise is associated with improved cognitive function, mood, learning ability, mental productivity, neuroplasticity (due to improved blood flow to the brain, increased levels of brain-derived neurotrophic factor (BDNF), and other growth factors), stimulation of neurogenesis, and increased brain resilience to adverse factors. Hörder et al. (2018) demonstrated that high physical activity can delay the onset of dementia by 9.5 years compared to women with moderate physical activity over a 44-year observation period. Additionally, Fox et al. (2022) found a positive correlation between the amount of physical activity and the volume of grey matter in the brain.

An individual is a biosocial entity, and their growth and life activities are influenced not only by biological factors but also by the environment and social interactions within society. The environment in which a person grows, learns, and lives plays a significant role.

Communication is based on feedback loops or cycles that arise during interactions. It involves both verbal and non-verbal means. Verbal communication uses words to convey the message, while non-verbal communication uses body language such as postures, gestures, and facial expressions to convey the context. The sense of communication is formed by the message's content and context and is reflected in the received reaction.

The purpose of the study is to examine the role of communication in maintaining a healthy lifestyle, for example, through the promotion of physical culture and sports, and to analyse the possible impact of the promotion of physical activity and sports on the economy.

2. METHODS

The study of the role of communication and investment in physical culture and sport as components of a healthy lifestyle was conducted using the theoretical method of studying and analysing scientific literature. In particular, scientific materials were analysed regarding the impact of physical activity and sport on the health of individuals and society as a whole, as well as on the effectiveness of enterprises and the economy.

Using the economic analysis method, the effectiveness of employing physical activity and sporting events in the development of companies and the practice of creating startups was determined. The comparative analysis method was used to identify the features of startups that contribute to their successful implementation and economic growth.

To study the types of business activities in sport, the classification method was used. The method of systematisation was employed to identify both the advantages and disadvantages of investing in sport and sporting events, as well as to summarise the specific characteristics of such investments.

3. RESULTS

In recent decades, the proliferation of digital technologies has significantly expanded communication methods, and communication has become deeply embedded in all aspects of human life.

Several trends drive the penetration of technology into physical culture and sports. These include the increased availability of sporting events for fans to watch at home, improved safety measures at stadiums and other sports arenas, the use of cryptocurrency and blockchain in the betting industry, a focus on internet advertising to capture the wallets of millennials, the use of ticket resale markets, and rewards for fans (Polyakova, 2018).

Ruslan Tymofieiev, founder of one of the most successful CPA networks in the Health & Beauty niche and initiator of the Ukrainian venture investment fund Adventures Lab, whose fund has financed projects such as EdoDo, Salo, and Reface with a total portfolio investment of over \$15

million, believes that communication is the key to success. He reached this conclusion with colleagues by analysing the effectiveness of various investment programs, as the company, through its developed network of contacts, robust networking, feedback, and communication with media and investors, possesses significantly more valuable information, allowing it to make the best decisions and outpace competitors (Somov, 2021).

In recent decades, sports have significantly contributed to the economies of many countries. Therefore, it is necessary to constantly improve and develop new models for sports management and financing (Grossman & Rein, 2016; Sarychev, 2015; Kafurina & Rodionova, 2021).

Physical activity and sports influence the economy directly and indirectly at various levels: from small businesses to global corporations, regions, and countries. An example of a direct impact is the immediate income related to the organisation of sporting events, their advertising, the sale of souvenirs, etc. Physical activity and the holding of sporting events contribute to improving employee productivity, their self-development, client orientation, team cohesion, and boosting team spirit and morale. Together, these factors enhance the well-being of employees, the reputation of businesses, and their overall efficiency, thereby indirectly affecting the economy of these institutions.

Entrepreneurship in sports is a unique form of business that requires organisational skills and a profound understanding of sports science. This includes anatomy, physiology, biochemistry, sports medicine, nutrition, pedagogy, sports psychology, sports management, and marketing. Entrepreneurship in sports is a socio-economic phenomenon that reflects the system of relations between participants in sports activities involved in producing and implementing goods or services for sports purposes (Lukashchuk, 2012).

The main prerequisites for the development of entrepreneurial activity in sports include:

- presence of different forms of ownership and types of business, which leads to the formation of a competitive environment, thereby improving the quality of services provided and the professional level of staff;
- equal access of each institution and sports organisation to the available resources, which makes active entrepreneurial activity possible, creating the effect of equal starting opportunities;
- no restrictions on the number of participants in the competition, free and equal access to and exit from the market, which allows each sports organisation to engage in entrepreneurial activity and make a profit;

- ability of each participant in the competition to have the full scope of market information, i.e. providing the consumer with the opportunity to choose a service.

Generally, entrepreneurial activity in sports can be schematically represented as follows (Figure 1) (Lukashchuk, 2012):

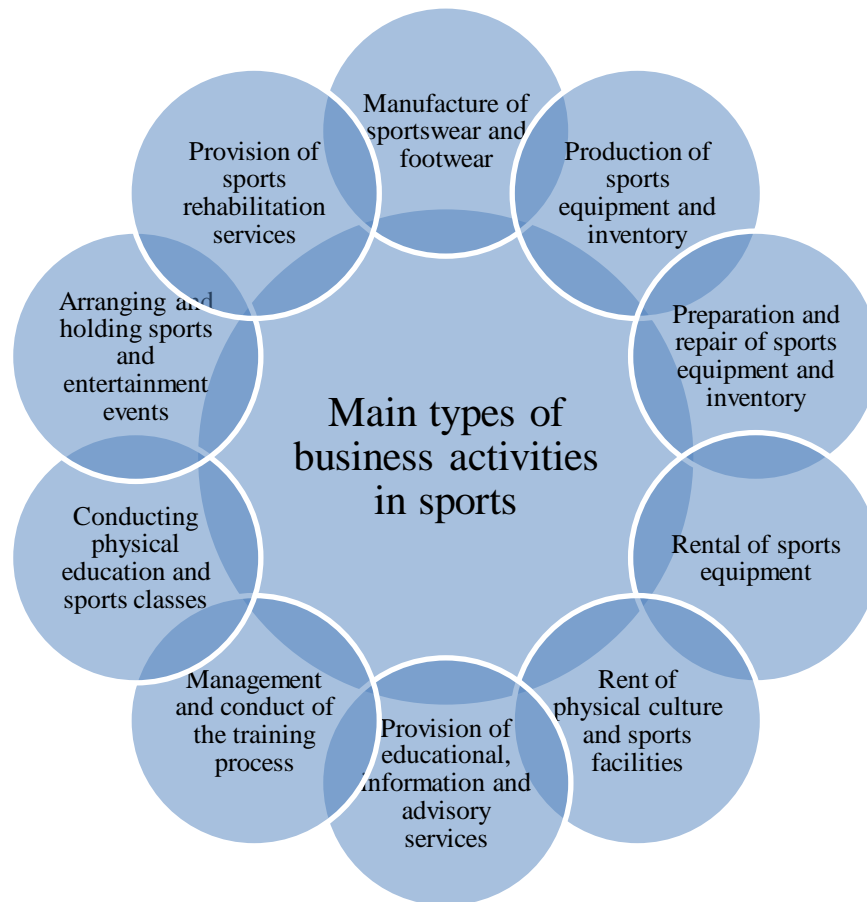


Figure 1. Types of business activities in sport

Organising and conducting sports and entertainment events involves sports and recreational activities such as marathons, cross-country races, tournaments for sports games, sports and entertainment events, concerts, sports holidays, and demonstration performances by representatives of sports institutions and prominent sports figures.

Conducting physical education and sports activities involves developing individual (or group) recommendations for training regimes; conducting sessions in groups for general physical fitness or recreational physical education; organising sports competitions in various sports within educational groups, schools, teams, and clubs; developing rehabilitation measures after injuries, methodological

consultations; implementing cultural and recreational events and various types of active leisure activities with medical support.

Renting sports and recreational facilities refers to using them for sports training or recreational exercises, considering the type of service or competition, as well as the possibility of using sports equipment such as gear, apparatus, and fitness equipment. It also involves creating a high level of comfort and organising leisure activities, using recreational and active leisure facilities, providing qualified service personnel, and creating conditions for health and strength restoration.

Organising and conducting educational and training processes contribute to forming skills, abilities, and related knowledge in the chosen sports discipline. It also includes teaching and forming missing components of physical, technical, tactical, or other readiness by sports activities. Additionally, it involves developing and strengthening the motor skills of service consumers according to the requirements of sports activities through teaching rational movement techniques. Furthermore, providing consultations on various issues of the educational and training process and comprehensive control of the level of comprehensive preparedness and health status of service consumers are also important aspects.

Information, counselling and education services are characterised by the provision of general information (through advertising, the media, the Internet, etc.) on the structure and content of sports services, the legal and regulatory framework of certification in the sports industry; counselling by nutritional specialists (e.g, nutritionists) on issues of rational diet and intake of vitamins and food supplements; consultations of consumers of services by specialists on future use of services to prevent future health problems or injuries; consultations by specialists on implementation of medical-rehabilitative measures and testing of athletes; preparation of recommendations for consumers of training programmes and general rules for their effective use; professional training (retraining) and improvement of qualifications in the field of physical culture and sport (Saienko, 2016; Kindzer et al., 2018; Leonov, 2018, 2020).

Physical and sports rehabilitation is provided to individuals who are recovering from injuries or have limited capabilities (usually physical) for the purpose of communication, entertainment, relaxation, support, or improvement of physical fitness and physical preparedness according to their necessary level.

Recently, startups that combine communicative and economic components have gained popularity. A startup is an organisation that is newly established and continuously searching for a scalable and repeatable business model while operating in extreme uncertainty.

It typically consists of 1-3 founders focused on capitalising on market demand by creating new innovative services or products. A startup aims to solve real problems through innovation and scaling, focusing on rapid growth in a defined market. Companies that start with an idea and quickly create a minimum viable product typically evolve into a global platform or service (What is a startup and why you should create your own, 2023).

The characteristic features and attributes of a startup, which are closely interrelated, are (Gavrish et al., 2019):

- based on an innovative business idea that involves the introduction of a new technology or the creation of a new product;
- youth and high intellectual potential of the initiating team;
- development in conditions of extreme uncertainty;
- mobility of the structure, which is focused on finding the optimal long-term business model;
- temporary nature of this organisational structure;
- the possibility of a rather long implementation without legal registration;
- scalability;
- reproducibility (repeatability);
- insufficiency or lack of capital for full-scale implementation of the business idea.

In 2017, Ilya Popov and Artem Nefedov, both Ukrainians, created an online platform called Smartsport for organising sports gatherings. The platform was valued at 1 million euros in the first six months of fundraising. Smartsport enables managers and coaches of sports teams to book sports facilities, hotels, plane tickets and transfers online worldwide based on training schedules, facility type, and budget (Figure 2) (Voloshyn, 2017). Although the startup's scope may appear limited, the sports gathering market is worth billions and has a large audience. This highlights the potential and interest in the startup.

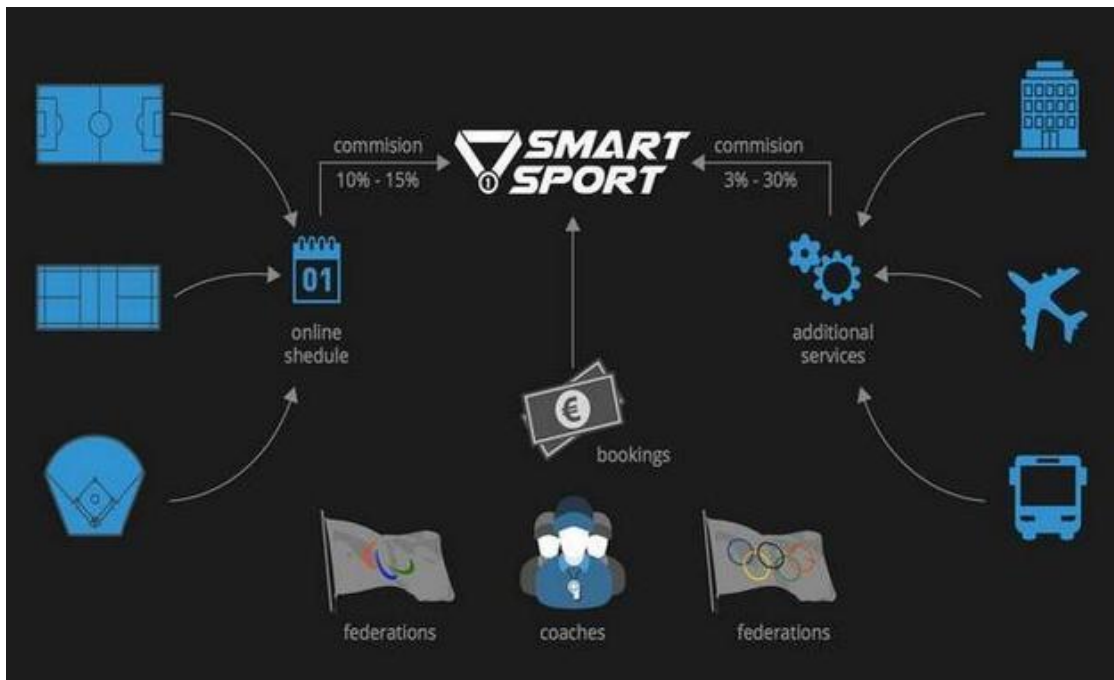


Figure 2. Scheme of the Smartsport online platform

Polyakova (2018) identified several successful sports-related startups:

- **FuboTV** (investment in the project of \$108.9 million) is a video platform with live broadcasts of various sports, TV series, documentaries and news about sports. The service was launched in 2015 as a streaming service with a focus on football but quickly relaunched as an MVPD (multichannel TV distributor) with streaming of cable and terrestrial channels;

- **Dream11**, the most prominent sports game in India (with an investment of \$108.9 million), which has more than 30 million users, is a platform where sports fans can demonstrate their sports knowledge, create their team of real players for future matches, compete with other fans, gaining points with their work on the field. In this way, fans become closer to their favourite sport and can imagine themselves not just as a spectator, but as a team coach;

- **SeatGeek** (\$160 million investment) is a ticket search system for concerts, sports games and theatre performances that, by considering users' preferences and remembering their favourite artists and teams through Spotify and Columbus Calendar apps, offers a tool for finding recommended events nearby;

- **The Players' Tribune** is a new media platform (with an investment of \$58 million) that presents daily videos, blogs, podcasts, player polls, and first-person accounts;

- **Minute Media** is a global digital sports media company (with an investment of \$75.8 million) founded by fans for fans, creating, publishing and sharing sports stories with 85 million monthly users;
- **STRIVR** (\$21 million investment in the project) transforms player and employee training through virtual reality, simulating various workplace situations for fast, effective and consistent learning, which is actively used by leading sports teams and Fortune 500 companies.

4. DISCUSSION

Huth (2019) assessed the effectiveness of investments in professional European football clubs and noted that club loyalty is essential for such investments. Unlike other investment sectors, investors in financial instruments of football clubs do not expect or demand financial returns from the issuing football club. Instead, they invest to help the club achieve its future sporting goals. Thus, some investors may find emotional satisfaction in the sporting success of a football club, compensating for their financial efforts rather than seeking financial returns (Huth, 2019; Kafurina, 2021).

Walraven et al. (2016) noted that 12.5% of sponsored sports services are effective. The duration of sponsorship positively impacts the effectiveness of sponsorship programs, while volatility has a negative impact. Therefore, the duration of the contract and the number of other sponsors are essential selection criteria for investors. However, the authors did not observe a significant influence of the sport's popularity on the sponsorship's effectiveness. The higher costs of sponsoring popular sports nullify their effectiveness (Walraven et al., 2016; Kafurina, 2021).

Research by Cui et al. (2019) found that sponsorship support closely linked to corporate image can significantly affect attitudes and image formation. Consumers perceive a more favourable evaluation of a company that sponsors sports events aligned with its corporate image. If the sports event matches the company's or product's image, consumers rate the company or product more favourably. The study found that sports sponsorship impacts corporate brand attitudes and purchase intent. Cui et al. (2019) revealed a significant relationship between corporate image formation and purchase intent. The study also showed that company sports sponsorship can generate a halo effect on behavioural factors, such as image formation and purchase intent. The effect can decrease or increase depending on the combination of negative or positive information about the company and the degree of sponsorship alignment with this image.

In their meta-analysis of 34 event study outcomes from 25 empirical manuscripts published between 1997 and 2018, Kwon & Cornwell (2020) found that abnormal profitability was positive but insignificant during the studies. This means that shareholders' wealth did not significantly increase or decrease on examination days. The authors suggest that Olympic sponsorship may be considered justifiable expenses without significantly impacting firm value. However, the study's lack of statistically significant abnormal profits does not necessarily indicate the absence of an effect from sponsorship investments. The timing of information disclosure to the market is crucial. The authors' results demonstrate a positive impact of sponsorship announcements on shareholder wealth in the pre-announcement window, indicating that this is when information is presented to the market. To explore other factors influencing stock market reactions to sponsorship, the study tested moderated effects of event windows, event nature, host country, and interaction between event character and host country. However, the limited samples used in the study yielded insignificant results (Kwon & Cornwell, 2020; Kafurina, 2021).

Penke (2020) analysed Red Bull's sponsorship of the sports industry. The company sponsors significant sports clubs and events to enhance brand recognition. For instance, Red Bull has founded its own extreme sports events worldwide and acquired a sports club involved in hockey, Formula 1, and football. The example demonstrates how to enter a market with high barriers by employing a differentiated strategic approach and a unique value proposition. The Red Bull case highlights the significance of having a clear differentiation strategy that all international subsidiaries adhere to. Red Bull demonstrated remarkable success through its international football conglomerate by investing in a football club in Germany. The club depends heavily on financial support and debt provided by its parent company, Red Bull. However, RB Leipzig is one of the most successful young clubs worldwide. Participation in the mass football market has two positive aspects for Red Bull. Firstly, sporting success will eventually allow RB Leipzig to repay its debt and most likely break even in its annual report. On the other hand, it will increase brand awareness by bringing the emblem of the iconic brand to millions of television screens worldwide (Penke, 2020; Kafurina, 2021).

Rohde & Breuer (2017) in their study examined the investor market in the sports industry, specifically focusing on European football clubs. They found that the market is characterised by low entry barriers, weak profitability despite rising revenues, and considerable diversity in types of owners, goals, and origins. Unlike leading sports leagues in the USA, there are no artificial licensing restrictions in place, meaning that investors can typically take over lower-class teams and develop them by moving up to higher classes. The ownership of European football clubs is diverse. Teams

can be owned by their members, regional or national people in business, industrial companies, sports investment firms, other football clubs, or foreign investors (Rohde & Breuer, 2017).

Prigge & Tegtmeier (2019) analysed the risk profile of football club stocks and compared them to other significant funds in the capital market. They found that most football clubs in the sample are overvalued. This means that investments in football stocks are mainly attractive to strategic investors who expect additional benefits from their investments rather than purely financial investors who aim to increase stock prices and receive dividends. Portfolio diversification can be advantageous when investing in football stocks due to the relatively low overall market risk for football clubs and their inflated valuation, leading to low equity capital costs when issuing new shares (Prigge & Tegtmeier, 2019).

Fűrész & Rappai (2020) evaluated the impact of player transfer leaks on the stock prices of football clubs. In most cases, stocks respond to announcements. Additionally, leaks of information were detected in two-thirds of operations. As small shareholders of football clubs are predominantly emotional rather than rational investors, most transfers affect stock prices even before their announcement. This is because acquiring a star player strengthens investors' commitment to the club and belief in its sporting success (Fűrész & Rappai, 2020).

Jakobsen et al. (2012) investigated the impact of hosting major sporting events, such as the Summer and Winter Olympics, UEFA European Championship, and FIFA World Cup, on foreign direct investment (FDI) inflows. The study analysed data from 1970 to 2009 to examine the relationship between hosting a major sports event and FDI inflows. The study's conclusions indicate that hosting major football events may lead to additional foreign direct investment for small countries, while large countries do not experience a significant increase. For instance, Belgium and the Netherlands, as hosts of Euro 2000, experienced a significant influx of foreign investment, although the figures sharply declined after the championship (Jakobsen et al., 2012; Kafurina, 2021).

5. CONCLUSIONS

Regular physical exercise can improve physical and mental health, increase happiness, and extend life expectancy while reducing the risk of chronic non-communicable diseases and promoting epigenetic youthfulness.

Investments in professional sports teams are risky due to the unpredictability of outcomes, as competition results and transfer rumours significantly influence stock prices. This is primarily

because small shareholders, who are mainly fans of clubs, are emotionally involved and more focused on the long-term sporting goals of the club rather than profit.

Some companies that own a share of the club aim for brand recognition and increased sales volumes of their products rather than profit in the form of dividends and changes in stock prices. Examples are the Austrian company Red Bull and the football club RB Leipzig.

Investigating the role of communication in promoting a healthy lifestyle, particularly the popularisation of physical culture and sports, and evaluating the effectiveness of investing in sports events and teams are promising areas for further research.

6. REFERENCES

1. Bahls, M., Groß, S., Baumeister, S. E., Völzke, H., Gläser, S., Ewert, R., Markus, M. R. P., Medenwald, D., Kluttig, A., Felix, S. B., & Dörr, M. (2018). Association of domain-specific physical activity and cardiorespiratory fitness with all-cause and cause-specific mortality in two population-based cohort studies. *Scientific Reports*, 8(1), 1-9. <https://doi.org/10.1038/s41598-018-34468-7>
2. Cui, G. Q., Lee, J. Y., & Jin, C. H. (2019). The role of sports sponsorship in negative new stories about a brand: Approach the halo effect. *Cogent Business & Management*, 6(1), 1-20. <https://doi.org/10.1080/23311975.2019.1699284>
3. Fox, F. A. U., Diers, K., Lee, H., Mayr, A., Reuter, M., Breteler, M. M. B., & Aziz, N. A. (2022). Association between Accelerometer-Derived Physical Activity Measurements and Brain Structure: A Population-Based Cohort Study. *Neurology*, 99(11), 1202–1215. <https://doi.org/10.1212/WNL.0000000000200884>
4. Fűrész, D. I., & Rappai, G. (2020). Information leakage in the football transfer market. *European Sport Management Quarterly*, 22(3), 419–439. <https://doi.org/10.1080/16184742.2020.1797847>
5. Gavrish, O. A., Dergacheva, V. V., Kravchenko, M. O., Sytnyk, N. I., Zhigalkevich, Zh. M., Boyarinova, K. O., & Kopishinska, K. O. (2019). *Management of startup projects: A textbook for students of technical specialties of the second (master's) level of higher education* (O. A. Gavrish, V. V. Dergacheva, M. O. Kravchenko, et al., Eds.). Kyiv: KPI named after Igor Sikorskyi, Polytechnic Publishing House.
6. Grossman, A., & Rein, I. J. (2016). Communicating the value of sports sponsorship. In *Sport Business Analytics: Using Data to Increase Revenue and Improve Operational Efficiency*. (pp. 157–171). CRC Press. <https://doi.org/10.1201/9781315367613>
7. Healthy Lifestyle. (2023). *Wikipedia*. Retrieved from <http://surl.li/ivimqn>
8. Hörder, H., Johansson, L., Guo, X., Grimby, G., Kern, S., Östling, S., & Skoog, I. (2018). Midlife cardiovascular fitness and dementia: A 44-year longitudinal population study in women. *Neurology*, 90(15), 1298–1305. <https://doi.org/10.1212/WNL.0000000000005290>

9. Huth, C. (2019). WHO invests in financial instruments of sport clubs? an empirical analysis of actual and potential individual investors of professional European Football Clubs. *European Sport Management Quarterly*, 20(4), 500–519. <https://doi.org/10.1080/16184742.2019.1684539>
10. Jakobsen, J., Solberg, H. A., Halvorsen, T., & Jakobsen, T. G. (2012). Fool's gold: Major sport events and Foreign Direct Investment. *International Journal of Sport Policy and Politics*, 5(3), 363–380. <https://doi.org/10.1080/19406940.2012.717099>
11. Kafurina, A. V. (2021). *The structure and effectiveness of investments in the sports industry of countries (on the example of the German economy)* [Bachelor's thesis]. Odesa.
12. Kafurina, A., & Rodionova, T. (2021). Structure and efficiency of investments in the sports industry of the countries (example of the German economy). *Market Infrastructure*, 55, 8–14. <https://doi.org/10.32843/infrastruct55-2>
13. Kindzer, B., Saienko, V., & Diachenko, A. (2018). Ability of kata “Sanchin” Kyokushinkai karate to quickly restore the bodies of karate sportsmen after significant physical activity. *Journal of Physical Education and Sport*, 18(1), 28–32. <https://doi.org/10.7752/jpes.2018.01004>
14. Kwon, Y., & Cornwell, T. B. (2020). Sport sponsorship announcement and stock returns: A meta-analytic review. *International Journal of Sports Marketing and Sponsorship*, 22(3), 608–630. <https://doi.org/10.2139/ssrn.3751134>
15. Leonov, Y. (2018). Strategic changes and their impact on the development of sports industry organisations. *Economies' Horizons*, 4(7), 230–237.
16. Leonov, Ya. (2020). Modern paradigm of sports policy as an ideology of a healthy society. *Three Seas Economic Journal*, 1(4), 102–108. <https://doi.org/10.30525/2661-5150/2020-4-15>
17. Lukashchuk, V. (2012). The features of business activity in sports sphere. *Ukrainian Society*, 3, 43–52. <https://doi.org/10.15407/socium2012.03.043>
18. Penke, L. R. (2020). *Red Bull gaining momentum in European club football: The competitive advantage of Rasen Ballsport Leipzig e. V.* [Master's thesis]. Lisboa.
19. Polyakova, A. (2018). *Sport is not the same anymore: How technology is changing the lives of athletes and fans*. Retrieved from <https://www.epravda.com.ua/publications/2018/10/12/641539/>
20. Prigge, S., & Tegtmeier, L. (2019). Market valuation and risk profile of listed European Football Clubs. *Sport, Business and Management*, 9(2), 146–163. <https://doi.org/10.1108/sbm-04-2018-0033>
21. Rohde, M., & Breuer, C. (2017). The market for Football Club Investors: A review of theory and empirical evidence from professional European football. *European Sport Management Quarterly*, 17(3), 265–289. <https://doi.org/10.1080/16184742.2017.1279203>
22. Ruegsegger, G. N., & Booth, F. W. (2017). Health benefits of exercise. *Cold Spring Harbor Perspectives in Medicine*, 8(7), 1-16 <https://doi.org/10.1101/cshperspect.a029694>
23. Saienko, V. (2016). Improvement and control of the development level of special endurance in athletes of high qualification in kyokushinkaikan karate. *International Journal of Pharmacy & Technology*, 8(3), 18026–18042.
24. Sarychev, V. I. (2015). Functioning sports sphere as a precondition of human development in Ukraine. *Formation of Market Relations in Ukraine*, 5(168), 191–196.

25. Somov, K. (2021). “Communication is the key to everything”: Ruslan Timofeev from Adventures Lab on the inner kitchen of investing, startups, and the network effect. *LB.ua*. Retrieved from https://lb.ua/economics/2021/11/03/497716_komunikatsiya-klyuch_vsogo.html
26. Thyfault, J. P., & Bergouignan, A. (2020). Exercise and metabolic health: Beyond skeletal muscle. *Diabetologia*, 63(8), 1464–1474. <https://doi.org/10.1007/s00125-020-05177-6>
27. Voloshyn, P. (2017). Ukrainians created a startup for sports worth 1 million euros. *Uprom.info*. Retrieved from <https://uprom.info/news/other/startapi/ukrayintsi-stvorili-startap-dlya-sportu-vartistyu-1-mln-yevro/>
28. Walraven, M., Koning, R. H., Bijmolt, T. H. A., & Los, B. (2016). Benchmarking sports sponsorship performance: Efficiency assessment with Data Envelopment analysis. *Journal of Sport Management*, 30(4), 411–426. <https://doi.org/10.1123/jsm.2015-0117>
29. What is a startup and why you should create your own. (2023, June 1). *Yepworld.org*. Retrieved from <http://surl.li/erkynf>
30. World Health Organization. (2022). *Physical activity*. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/physical-activity>

AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct and intellectual contribution to the work, and approved it for publication.

CONFLICTS OF INTEREST

The authors declare no conflict of interest.

FUNDING

This research received no external funding.

COPYRIGHT

© Copyright 2025: Publication Service of the University of Murcia, Murcia, Spain.