

THE IMAGE OF A PROFESSIONAL SPEEDWAY RIDER IN THE CONTEXT OF PUBLIC RELATIONS MANAGEMENT

Sławomir KOWALSKI

Centre of Marketing and Communication, Częstochowa University of Technology; slawomir.kowalski@pcz.pl,
ORCID: 0000-0002-5421-5053

Purpose: The main objective of this article is to identify and evaluate factors influencing the image of speedway riders. Nowadays, these factors are mainly determined through social media, which continues to be an important intermediary between athletes and stakeholders. An additional objective is to attempt to find differences between the image of speedway riders and other athletes.

Design/methodology/approach: In order to achieve the intended goal, source research methods and numerical data were used to determine the factors influencing the image of speedway riders. The primary research was conducted on a group of 134 respondents, users of the Awangarda Żuźłowa website, between 24 and 31 August 2025. The data was subjected to statistical analysis using statistical measures and an independence index. The subject of the study was to assess the current image of speedway riders and to determine the strength of the factors influencing their image. The study was conducted using the CAWI method and analysed using Excel spreadsheet functions.

Findings: The result of the study was to demonstrate the role of image management in sports marketing and to determine the strength of the impact of individual factors on the image of an athlete.

Research limitations/implications: The main limitations of the study are the variety of factors that may influence the management of an athlete's image, the high mobility of the environment, and the multi-channel nature of the methods used to reach stakeholders.

Practical implications: It is hypothesised that the optimal application of the proposed research method will provide knowledge on the objective assessment of athlete image management policies, mainly through social media. This knowledge will fill a research gap, as previous studies on image have focused on individual, well-known athletes. The findings of the research will contribute to broader implications for image management.

Social implications: It is assumed that with the optimal application of the proposed survey method, a tool is gained for the objective evaluation of the communication management policy through social media. The method replaces a qualitative assessment of this management, showing the position among different types of media or competitors.

Originality/value: The article is aimed at people involved in managing aspects such as public relations, communication and image management. What is new about this article is that it is the first study on speedway racing in terms of image creation through public relations management and athlete behaviour in the internet space. This, in turn, affects communication management not only at the level of social media, but also in multi-channel marketing.

Keywords: social media, image management, communication.

Category of the paper: Research paper.

1. Introduction

The concept of image in a marketing context is linked to the belief that it is not what a person is, but how they are perceived by others. In literature, image is defined as a complex intellectual or sensory interpretation, a way of perceiving someone or something; a product of the mind resulting from deduction based on available premises, both real and imagined, conditioned by impressions, beliefs, ideas and emotions (Skrucha, 2022).

In the legal sense, image is also a personal asset, which means that an athlete's image is subject to legal protection. With the development of the media, image often takes on a commercial dimension - it becomes a value that can be 'exploited', e.g. in advertising, sponsorship and marketing (Stepień, 2016).

This article deals with issues related to image creation and brand building, which in turn should be part of a larger public relations management policy. All these elements are therefore interrelated. The field of discussion here is the application of principles present in sports marketing, where the subject is an athlete, a representative of speedway.

The „image of an athlete” is a rather complex construct - it encompasses psychological, social, media, economic and legal aspects.

The topic of an athlete's image is not an unknown issue. In Poland, many authors have dealt with the role of image and its creation. What should be noted is that the literature is dominated by works that examine the image of a famous athlete. In this way, Polish and foreign athletes are described using a comparative method. The image of Stephen Curry and LeBron James, NBA basketball players, was examined using this method (Każmierczak, 2023). Among the Polish athletes examined in the context of image were Justyna Kowalczyk-Tekieli (Dumalewska, 2022), tennis player Iga Świątek (Puto, 2023), ski jumper Kamil Stoch (Zielińska, 2021) and former footballer Jakub Błaszczykowski (Gaudym, 2022). In each of these cases, the focus was on media personalities operating in open social media. As can be seen from the analysis, the topic of an athlete's image is relatively often chosen as the basis for theses.

Nowadays, the creation of an athlete's image is mainly based on social media, which is very important in this respect and is visible through interest in clubs, events and sports results. In all of them, the athlete is often the central figure.

Here, the principles of sports marketing apply, where the subject is the athlete, a representative of speedway.

Attention is drawn here to the phenomenon of athletes creating themselves in social media and the emergence of a new category of athletes, namely e-athletes. This approach requires the researcher to accept the fact that the modern world of sport includes not only well-known and media-savvy athletes, but also those who are athletes of a different, more niche category. In the case of e-athletes, on the one hand, the prefix of the name evokes computer and internet connotations, while on the other hand, the core of the name refers to activities traditionally associated with movement and physical effort (Kinal, 2021). Interestingly, athletes themselves also describe issues related to image during their own intellectual development (Ennaoui, Pieniacka, 2025) and raise topics related to media coverage, which are closely linked to image (Łasiński, Pawlukiewicz, 2018; Wesołowska, 2024).

In addition to typical marketing issues in the context of image building, legal issues should also be taken into account. Athletes are products of the modern market, but their image is protected. It is worth noting that there are no specific international legal regulations in this area that would ensure uniformity of rules applicable in individual national legal systems. The key point is that these rules vary greatly, which is related to the deep and historical roots of image issues in the civil law of a given country. In the case of athletes in a global world, it is important to bear in mind that they operate in different legal systems (Król, 2022; Tylec, 2009).

Sport functions on a much broader level than entertainment. Today, it is the result of commercialisation, which means that it has transformed into a business that needs public interest to ensure financial stability. The authorities of major sports disciplines must adapt their activities to the demands of society and the media. Athletes must also submit to these constraints (Safin, 2024). An example of this is the ostracism and even ban on supporting Russian initiatives after Russia's aggression against Ukraine in 2022.

The following section will present theoretical issues concerning the connection between an athlete's image and social media and public relations in the light of a review of foreign literature sources.

2. The relationship between an athlete's image and social media and public relations

The earlier mentioned terms refer to the interest in the image of athletes by Polish authors. In foreign literature, there is slightly less thematic diversity. Less attention is paid to specific athletes, and more to model solutions and the connection between image and public relations management and branding. An athlete's image and brand are built by combining unique and recognisable sets of associations and characteristics that create a specific brand image. An emotional bond with the audience is particularly effectively built through communication

in social media, which are inseparable and constitute one of the basic mechanisms of personal brand building. According to the Athlete Brand Image Model (ABIM), we distinguish three most important dimensions of brand image: sporting results, attractive appearance and attractive lifestyle.

In this context, it is also important to link this to public relations management. The activities of this promotional tool combine management tools such as: the use of various forms of communication aimed at identifying common views or interests of different groups; contributing to the development of partnership-based and friendly relations between social services, clients and the public; ensuring mutual understanding based on truth and full social awareness; and ultimately shaping positive public opinion and a favourable image (Akhmadieva et al., 2021).

Public relations in sport is defined as a function based on management communication, aimed at identifying key audience segments of a sports organisation, assessing its relations with these segments and supporting desirable relations between the sports organisation and these segments. Nowadays, it is not only the quality of the competition that is important, but also the way in which a sports organisation or club presents itself to the public. In order to implement effective strategic public relations, sports organisations should understand the expectations and behaviours of their audience and various stakeholder groups (Halemba et al., 2013). "Public relations specialists take into account the complex sports value chain and strategically manage communication and the image of celebrities, from their inception to communication with fans.

The specific goal of public relations in sports organisations is to strengthen the relationship between the organisation and its stakeholders" (Constantinescu, Serbanica, 2016).

When building an image, one of the main stages in developing an organisation's marketing strategy may be to define its main objectives. The main objectives of public relations in sport include:

- building consumer confidence in the club or sports organisation and sports equipment manufacturers,
- gaining credibility in terms of the quality of sporting events and equipment technology,
- attracting new spectators and participants to events,
- increasing attendance at matches,
- stimulating public support for specific sporting events,
- transferring the reputation of the sports brand to partners and sponsors.

In addition, professional crisis management is extremely important in a sports organisation. It is used when the organisation's image needs to be improved, for example as a result of hooliganism during matches, racism, financial crisis, internal conflicts, referees' decisions or doping (Sznajder, 2012).

An athlete's image is a derivative of their personal image, communication management through social media, and the management of promotional tools, such as public relations. This is because athletes are part of a larger organisation and their image affects the image of the whole. This is well illustrated by the example of Argentine athletes named the best ambassadors of their country (Hemeury, 2023).

It is worth noting that creating an athlete's image is now easier thanks to social media, which facilitates contact with athletes, provided that they are able and willing to manage their own media accounts. These conditions apply to organisations that include social media clauses in their contracts with athletes. Such restrictions result both from the personal characteristics of the athlete and from public relations policy. In today's media world, athletes are positioned as employees who must follow established rules. In creating their image through social media, they are part of a sports organisation with strict rules regarding the behaviour of athletes on the Internet.

Foreign literature on research into the role of social media dates back to 2010, when Twitter became the first platform enabling direct communication between athletes and fans, and the concepts of micro-communication, instant news and authenticity building were introduced (Pegoraro, 2010). Shortly afterwards, the first foundations for research on athlete branding were laid (Arai, 2014), where the authors created the first comprehensive model of “athlete brand image” (ABI), consisting of three components:

1. Athletic performance – achievements, playing style, professionalism.
2. Attractive appearance – physical appearance, recognisability, media presence.
3. Marketable lifestyle – personality, lifestyle, fan relations, media activity.

Social media began to be seen as a new arena for communication, where athletes become interactive media actors and there is a sense of closeness between fans and athletes. The concept of digital intimacy, i.e. a sense of closeness between fans and athletes, was introduced (Kassing, Sanderson, 2012). At the same time, changes in communication style emerged, the impact of sporting success on the brand was defined, and the role of visual storytelling was identified.

Contemporary research focuses on the development of issues related to the image of athletes, social media, and public relations management. This research integrates issues such as fan psychology, perception, image and social media algorithms. It shows that a consistent image translates into increased response, greater fan stability and better sponsor effectiveness. All of these factors ultimately influence fan loyalty and engagement (Constantinescu, Serbanica, 2016).

Many researchers have addressed the topic of social media. In light of the literature review, it should be noted that this tool is related to building relationships between athletes, clubs and fans (Abeza et al., 2013; Filo et al., 2015). The causal relationship between athlete brand communication and the process of communication in social media and the added value of the sports industry has also been studied (Ritnuang, 2025). This highlights the link between the media and the overall communication process.

Another area of research was the role of sports celebrities and champions in the communication policy of sports clubs (Clavio, Kian, 2010; Badaghi, 2021). Their involvement in social media indicated a close relationship between the public relations of a sports organisation and an athlete, as well as an emphasis on creating a sports brand from an athlete (Doyle et al., 2020/2021; Ilievska Kostadinović, Kostadinović, 2025; Nan, 2025; Kunkel, Doyle, 2019).

This review shows that brand creation was carefully planned by the sports organisation, which decided in which direction the athlete's brand could go (Nikseresht et al., 2021), although the autonomous behaviour of athletes on social media was also studied (Xu, 2025), and even patterns of behaviour were sought where the athlete would become an authority figure in the eyes of fans (Rodrigues, Arola-Fernandez, 2024). Recent studies confirm that communication in the context of image, brand and public relations is extensive and occupies an important place in sports management, but its dynamic development means that there are still many research gaps (Pedersen, 2025).

One such research gap is the study of the image of speedway representatives, where the individual image is combined with the image of the club, and athletes represent several clubs and the national team. In this case, it is difficult to draw clear boundaries between personal branding, communication and public relations, but social media remains the common denominator.

3. Research methods

A review of the literature indicates that athletes' behaviour significantly shapes their image in the eyes of fans and the public. This image is a result of public relations management, where athletes consult their behaviour on the internet with their club or sports organisation. Clubs and players are aware of the power of the media and are therefore increasingly turning to a variety of personal branding strategies, from media activity to direct contact with fans. However, it should be emphasised that public perception does not always correspond to the intentions of athletes, as the perception of their behaviour is based not only on facts but also on emotions. For this reason, media messages should be well thought out and balanced.

The image of athletes is created both by their sporting achievements and their attitudes outside of sport. Behaviours such as fair play, teamwork and activity on social media are particularly well received. On the other hand, arrogance, aggressive driving and avoiding contact with fans can have a negative impact on how a player is perceived.

First of all, it should be emphasised that a speedway rider is a specific type of athlete. This specificity stems from the fact that he is simultaneously a competitor for several club teams in different countries and for the national team. Therefore, the image of a speedway rider must

correspond to the various image goals of these clubs and the goals of the national team. For example, the most outstanding speedway rider today – multiple world champion Bartosz Zmarzlik – competes for Orlen Oil Motor Lublin in the PGE Ekstraliga and for the Swedish team Lejonen Gislaved, as well as in national team tournaments. In addition, he is the ambassador for the 4F Polska brand. This requires diverse behaviour and adherence to communication rules. This is evident in social media (Figure 1).

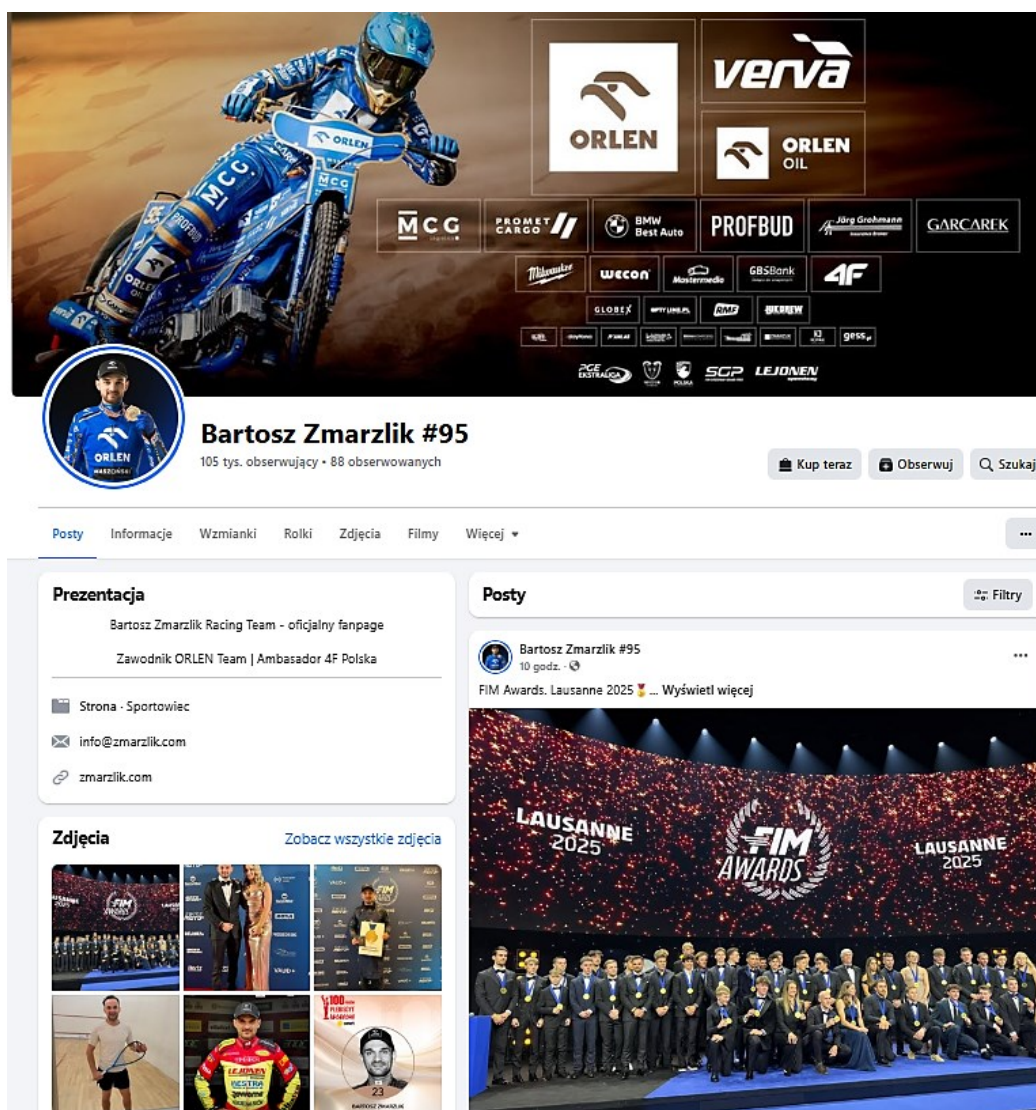


Figure 1. Fanpage of Bartosz Zmarzlik on Facebook.com

Source: <https://www.facebook.com/zmarzlik95>.

The study concerned the image of speedway riders in social media, treated as a group of individuals with different achievements, degrees of popularity and sporting levels. The aim of the study was to determine whether and to what extent specific behaviours of speedway riders affect the assessment of their image by fans. The study was conducted using an online survey (CAWI), and the research tool was a questionnaire. The respondents were fans and observers of speedway, who assessed the riders both in terms of their overall image and specific behaviours relevant from the perspective of public opinion. The sample was selected in a non-

random, typical manner, which allowed us to focus on a group of recipients particularly involved in this discipline.

Athletes' public image is shaped by both their sporting achievements and their conduct outside the sport. It is particularly positive when sporting achievements align with their attitude towards fans, personal image, professionalism, treatment of sponsors and self-presentation.

The data obtained was subjected to statistical analysis in order to verify the relationship between the variables under study. The chi-square independence test was used for the calculations, which allows us to check whether the distribution of image ratings differs significantly depending on the declared behaviour of speedway riders. In this case, a null hypothesis was proposed, which assumes that the selection of individual image elements does not result in a higher rating for sporting elements. The alternative hypothesis, on the other hand, assumed that the selection of individual image elements results in a higher rating for sporting elements.

The calculation procedure involves presenting the observed frequencies in the form of a contingency table, in which respondents' answers are counted for individual variable categories. Based on the contingency table, a table with expected (theoretical) frequencies was created, analogous to the table with observed frequencies. Expected frequencies are calculated on the assumption that the variables are independent (Słowińska, 2019).

The individual expected frequencies indicate how many respondents should represent a given research condition, i.e. a given combination of variable categories, in order to fully satisfy the postulate of variable independence presented in the null hypothesis.

For further analysis, theoretical data were determined for each cell according to the following formula:

$$n'_{ij} = \frac{n_i * n_j}{\sum_{i,j=1}^n n_{ij}} \quad (1)$$

where:

n_i – is the marginal value of rows and

n_j - marginal value of columns j ,

$\sum n_{ij}$ - sum of all observations.

In the further part of the procedure, theoretical frequencies were used with the observed ones to calculate the empirical chi-square statistic, according to the formula:

$$\chi^2 = \sum_{i=1}^k \sum_{j=1}^s \frac{(n_{ij} - n'_{ij})^2}{n'_{ij}} \quad (2)$$

When calculating the value of the χ^2 statistic, for the sake of clarity, you can also create a table with the individual components of the χ^2 statistic (calculations according to the fractional notation). Then, after calculating the individual components of the statistic, add up all the component values. The result of this operation is the value of the χ^2 statistic.

The final stage of verifying statistical hypotheses with the χ^2 test is to compare the calculated value of the empirical statistic with the critical value. The critical values for the accepted level of significance (usually 0.05) and the corresponding degrees of freedom are read from special chi-square distribution tables.

The degrees of freedom (df) for the variables under study are determined by multiplying the number of rows by the number of columns minus 1, i.e. degrees of freedom = $(r-1)*(k-1)$.

1. Hypotheses are verified on the basis of the χ^2 and χ_{α} values. In the χ^2 independence test, there are null and alternative hypotheses, formulated as follows:
2. Hypothesis zero: the variables under study are independent.
3. Alternative hypothesis: the variables under study are dependent.

If the calculated χ^2 value is less than the critical value, there are no grounds for rejecting the null hypothesis, i.e. the variables are independent, whereas in the opposite situation, the null hypothesis should be rejected, which means that the variables under study are dependent. The χ^2 independence test is not used to assess the strength and direction of the relationship between variables. Based on the result obtained, we only determine whether there is a relationship or not. In order to determine the strength of the relationship, one of the available correlation measures should be determined, e.g. the V-Cramer coefficient. The V Cramer coefficient is used for multi-part tables and is expressed by the formula:

$$V = \sqrt{\frac{\chi^2}{n(m-1)}} \quad (3)$$

where:

V - V-Cramer's coefficient,

χ^2 - chi-square test result,

n - number of observations,

m - the smaller of the numbers k and l determining the number of rows and columns.

After substituting the numbers into the equation, a value between 0 and 1 is obtained, and the closer to zero, the more independent the characteristics are.

4. Research methods

The table contains empirical (observed) data, presented in the form of a contingency table. The calculations are based on assessments of the impact of individual elements, expressed as the level of significance of a given factor. Respondents first answered the question about what influences the image of a speedway rider, and then determined the strength of that element. The most frequently selected element shaping the image was the sporting level (120 responses), followed by personal image (82 responses) and activity on social media (63 responses). Slightly fewer respondents considered organisational professionalism, loyalty to sponsors and self-presentation to be image-shaping factors (47, 53 and 42 responses, respectively). The selected factors were correlated with the assessment of their strength of influence on the image. Here, as many as 75% of respondents rated it highly (at 4 and 5 on a five-point scale), meaning that most of these behaviours and interactions are important for the image.

This raised a research problem of determining whether the assessment of image elements is independent of these elements, i.e. whether they can be treated separately.

Table 1.

Assessment of elements of speedway riders' image

Image elements/Ratings	Very important factor	Important factor	Medium important factor	Not very important factor	Unimportant factor	Total
Sporting achievements	42	54	18	4	2	120
Organisational professionalism	18	25	3	1	0	47
Personal image	30	38	11	1	2	82
Social media activity	27	20	13	1	2	63
Loyalty to sponsors	17	27	6	1	2	53
Self-presentation	14	21	7	0	0	42
Total	153	189	61	10	9	422

Source: Own work based on research.

Table 1 identifies the elements that influence the image of a speedway rider and assigns them a level of significance. These elements are divided into those related to sport and sporting discipline (sporting achievements, organisational professionalism, loyalty to sponsors) and individual elements (personal image, social media activity, self-presentation). The data was processed using the chi-square test to verify the hypothesis that the level of significance is independent of the elements influencing the image. For further analysis, theoretical data were determined for each cell (Table 2).

Table 2.*Theoretical frequencies of speedway riders' image element ratings*

Image elements/Ratings	Very important factor	Important factor	Medium important factor	Not very important factor	Unimportant factor	Total
Sporting achievements	43,51	53,74	17,35	2,84	2,56	120
Organisational professionalism	17,04	21,05	6,79	1,11	1,00	47
Personal image	29,73	36,73	11,85	1,94	1,75	82
Social media activity	22,84	28,22	9,11	1,49	1,34	63
Loyalty to sponsors	19,22	23,74	7,66	1,26	1,13	53
Self-presentation	15,23	18,81	6,07	1,00	0,90	42
Total	153	189	61	10	9	422

Source: Own work based on research.

In accordance with the chi-square test procedure, the theoretical and observed frequencies were used to calculate the empirical chi-square statistic. The calculations are summarised in Table 3.

Table 3.*Table of squares of differences between theoretical and empirical values*

Image elements/Ratings	Very important factor	Important factor	Medium important factor	Not very important factor	Unimportant factor
Sporting achievements	0,05	0,00	0,02	0,47	0,12
Organisational professionalism	0,05	0,74	2,12	0,01	1,00
Personal image	0,00	0,04	0,06	0,46	0,04
Social media activity	0,76	2,39	1,66	0,16	0,32
Loyalty to sponsors	0,26	0,45	0,36	0,05	0,67
Self-presentation	0,10	0,25	0,14	1,00	0,90

Empirical value: $\chi^2 = 14,67$.

Source: Own work based on research.

The empirical statistics were compared with the theoretical statistics from the chi-square distribution tables with the appropriate degrees of freedom. In this case, the number of degrees of freedom will be 20, because $(6-1)*(5-1)$, and the confidence level will be 0.95. The theoretical statistics from the chi-square distribution tables with 20 degrees of freedom and a significance level of 95% is 31.4104.

The Cramer's coefficient calculated for these data was 0.16, which indicates a low correlation between the elements influencing the image of a speedway rider.

The empirical statistic is $\chi^2=14.67$ and is smaller than the theoretical statistic (31.4104). Therefore, there are no grounds for rejecting the hypothesis of independence of characteristics with the given probability (0.95). Based on this result, it can therefore be concluded that, with a 95% probability, the image elements do not affect the level of existence. The lack of grounds for rejecting the null hypothesis indicates that individual characteristics do not directly determine image ratings. The factors can be treated separately. The assessments are holistic in nature – fans and observers formulate them on the basis of the overall image of the players, rather than individual behaviours or characteristics. The assessments are therefore

multidimensional and general, and do not refer to specific elements of the speedway riders' image.

It is also worth noting that social media was the most important element of image. This is a factor where the number of responses in the 'Very important factor' category exceeded the number of responses in the 'Important factor' category. The role of social media in image creation has therefore been confirmed.

5. Discussion

The research conducted allowed us to formulate several key conclusions regarding the image of speedway riders and the factors shaping its perception in public opinion.

Firstly, the results indicate that the overall image of speedway riders is perceived positively by the vast majority of respondents.

Secondly, the respondents see speedway riders as ambassadors of sport and a positive image of Poland on the international stage. Over 70% of respondents confirmed that speedway riders represent not only their discipline, but also Polish sport as a whole. This shows that successes achieved on the international stage have a significant impact on creating a positive image of the riders.

Thirdly, it should be noted that the overall image of speedway riders is positive, but its perception is multidimensional and does not always result from a rational analysis of specific behaviours. This happens both in the real and virtual worlds. Opinions are also influenced by emotional factors related to club affiliation, the atmosphere of the competition, and the individual preferences of fans. This opens up opportunities for clubs and sports organisations, which should control the behaviour of athletes through public relations management activities. This can be done through specific provisions in player contracts regulating the rules of speedway riders' presence in social media.

In summary, research confirms that the image of speedway riders is generally positive and stable, and that shaping it requires consistent and long-term efforts. Although individual elements, such as media activity or self-presentation, do not directly translate into fan ratings, they contribute to the overall image of the riders and can play a supporting role in the long term. The results of the research also indicate that in order to further strengthen the image of speedway as a discipline, it is important to maintain a high level of sportmanship and emphasise values such as fair play, professionalism and openness to contact with fans. This is the role of communication and public relations management, where social media, which is still very important to fans, should play a major role.

The findings of this article do not contradict other publications, but may serve as a starting point for further research on the behaviour of athletes treated individually or in the context of clubs and national teams.

The article does not present any changes to the detailed public relations strategy for speedway riders, but it does show that in their case, the classic approach to public relations strategy needs to be modified. This is due to the internationalisation of athletes and their reduced attachment to their clubs. A speedway rider is an athlete who works for several clubs during the season, in different countries and in national teams. Their cosmopolitanism requires the club and the national team to adopt strategies that go beyond standard public relations. The article showed that individual elements, such as media activity or self-presentation, do not have a direct impact on fans' assessments, and should therefore be excluded from public relations strategies. This is important for this strategy because neither the player's clubs nor the national team have a decisive influence on what the athlete posts on social media or how he creates his own image. Going deeper, they can only use legal measures (contract provisions) to correct what is unacceptable to them. In other team sports, the player is almost completely subordinate to the club and its public relations, while in speedway, the athlete is an independent employee (and often an employer) whose relationship with a particular club is looser. Other athletes are more attached to their clubs. Other athletes are more attached to their clubs. The difference stems from the task-oriented nature of speedway riders' work, which focuses mainly on results, without involvement in club life, contact with fans, and limited sponsorship obligations.

The research is part of a larger study and may serve as an introduction to a more detailed examination of the relationship between the media, communication and public relations management.

References

1. Abeza, G., O'Reilly, N., Reid, I. (2013). Relationship marketing and social media in sport. *International Journal of Sport Communication*, 6(2), 120-142.
2. Akhmadieva, R.S., Mikhaylovsky, M.N., Simonova, M.M., Nizamutdinova, S.M., Prokopyev, A.I., Ostanina, S.S. (2021). *Public relations in organizations in sportsman students view: development of management tools or healthy and friendly relations formation*, <https://doi.org/10.14198/jhse.2021.16.Proc3.43>
3. Arai, A., Ko, Y.J., Ross, S. (2014). Branding athletes: Exploration and conceptualization of athlete brand image. *Journal of Sport Management*, 28(1), 1-15.
4. Biz, M., Schubert, M. (2024). Perceptions of celebrity athletes involved in social cause endorsement. *Frontiers in sports and active living*, 6, 1415382. <https://doi.org/10.3389/fspor.2024.1415382>

5. Bodaghi, A. (2021). *A Longitudinal Analysis on Instagram Characteristics of Olympic Champions*. arXiv:2108.07138. <https://doi.org/10.48550/arXiv.2108.07138>
6. Clavio, G., Kian, E.T. (2010). Understanding professional athletes' use of Twitter: A content analysis. *International Journal of Sport Communication*, 3, 454-471. <https://www.sciencedirect.com/science/article/abs/pii/S1441352314000904?>
7. Constantinescu, M., Serbanica, D. (2016). Using Public Relations in Sports. *Romanian Journal of Marketing*, 11(2), 30-35.
8. Doyle, J., Kunkel, T., Na, S. (2020/2021). *Exploring athlete brand image development on social media: The role of signalling through source credibility*. 10.1080/16184742.2019.1662465
9. Doyle, J.P., Su, Y., Kunkel, T. (2020). Athlete branding via social media: examining the factors influencing consumer engagement on Instagram. *European Sport Management Quarterly*, 22(4), 506-526. <https://doi.org/10.1080/16184742.2020.1806897>
10. Dumalewska, A. (2022). Medialny wizerunek sportsmenki w trakcie i po zakończeniu kariery na przykładzie Justyny Kowalczyk-Tekieli. *Com. press*, 5(1), 122-147.
11. Ennaoui, S., Pieniacka, E. (2025). *Współczesne trendy w kreowaniu wizerunku sportowca*. Studia i Monografie. AWF, 15.
12. Filo, K., Lock, D., Kunkel, T. (2015). Sport and social media research: A review. *Sport Management Review*. <https://doi.org/10.1016/j.smr.2014.11.001>
13. Gaudyn, M. (2022). *Kreowanie marki osobistej sportowca na przykładzie Jakuba Błaszczykowskiego*. Praca magisterska. Uniwersytet Jagielloński.
14. Halemba, P., Juchimiuk, M., Kucharski, M. (2013). *Sport Marketing on the Example of Professional Volleyball League*. Katowice: AWF, 82.
15. Hémeury, L. (2023). Argentine sportsmen and women, "Nueva Argentina's best ambassadors" (1946-1955). *Relations internationales*, 195(3), 69-84.
16. <https://www.facebook.com/zmarzlik95>.
17. Iliavska Kostadinović, M., Kostadinović, G. (2025). Personal branding of athletes in digital marketing: The role of communication strategies and their commercial potential. *Sport, Media and Business*, 11(1), 119-130.
18. Kassing, J.W., Sanderson, J. (2012). Playing in the new media game: Athletes' use of social media to engage fans. *Communication & Sport*, 1(3), 273-297.
19. Kaźmierczak, P. (2023). Kreowanie wizerunku medialnego sportowca w mediach społecznościowych. Analiza porównawcza profili Stephena Curry'ego i LeBrona Jamesa na Instagramie. *Acta Universitatis Lodziensis. Folia Librorum*, 2(37), 53-71. <https://doi.org/10.18778/0860-7435.37.03>
20. Kinal, A. (2021). Między nerdem a zawodnikiem–autokreacja wizerunku e-sportowców w mediach społecznościowych na przykładzie Facebooka. *Rocznik Lubuski*, 47(2), 161-183.

21. Król, K. (2022). Sportowiec jako produkt współczesnego rynku, a jego prawo do ochrony wizerunku. *Studia Prawnicze: rozprawy i materiały*, 31(2), 79-91.
22. Łasiński, G., Pawlukiewicz, A. (2018). Rozpoznawalność, wizerunek i medialność przedstawicieli polskiego sportu – możliwe implikacje biznesowe. *Marketing i Zarządzanie*, 51, 235-245.
23. Magano, J., Szczygiel, N., Au-Yong Oliveira, M. (2024). The influence of sports celebrities' image on fan loyalty and social media engagement. *European Review of Business Economics*, 3(2), 53-69.
24. Maleš, D., Trbušić, D., & Rimac, S. (2022). Communication patterns of star athletes' brands on digital Channels: A Comparison Of The Global And Croatian Highest-Paid Sportsmen And Women. *South Eastern European Journal of Communication*, 4(2), 17-27.
25. Na, S., Kunkel, T., Doyle, J. (2019). Exploring athlete brand image development on social media: The role of signalling through source credibility. *Sport Marketing & Social Media Journal*. <https://doi.org/10.1080/16184742.2019.1662465>
26. Nan, X. (2025). The Impact of Social Media on Athlete Branding. *Communications in Humanities Research*, 79(1), 141-146, <https://doi.org/10.54254/2753-7064/2025.BJ29060>
27. Nikseresht, A., Raeisi, M.H., Mohammadi, H.A. (2021). *Decision making for celebrity branding: An opinion-mining approach based on polarity and sentiment analysis using Twitter consumer-generated content*. <https://arxiv.org/abs/2109.12630>
28. Pedersen, P.M. (Ed.) (2025). *Communication in Sport Management*. Routledge. <https://doi.org/10.4324/9781003520405>
29. Pegoraro, A. (2010). Look who's talking—Athletes on Twitter: A case study. *International Journal of Sport Communication*, 3(4), 501-514.
30. Puto, K. (2023). *Pofesjonalistka z Raszyna. Twitter jako narzędzie kreowania wizerunku. Przykład Igi Świątek*. Praca magisterska Uniwersytet Jagielloński.
31. Ritnuang, J. (2025). Causal relationship between athlete-branding communication and social-media communication process and value added of sports industry in Thailand. *International Journal of Innovative Research and Scientific Studies*, 8(1), 1631-1638. <https://doi.org/10.53894/ijirss.v8i1.4711>
32. Rodríguez, J.P., Arola-Fernández, L. (2024). *Understanding following patterns among high-performance athletes*. <https://arxiv.org/abs/2405.10798>
33. Safin, A. (2024). Sport zawodowy a wyzwania wizerunkowe. Studium przypadku wizerunku Formuły 1 w kontekście politycznym. *Zarządzanie Mediami*, 12(1), 83-102.
34. Sahaj, T. (2023). Sposoby narracji i budowania wizerunku sportowców z niepełno-sprawnościami podczas igrzysk paraolimpijskich. Od Londynu 2012 do Pekinu 2022. *Przegląd Socjologii Jakościowej*, 19(3). <https://doi.org/10.18778/1733-8069.19.3.03>
35. Skrucha, W. (2021). Wizerunek Roberta Lewandowskiego w wybranych kampaniach promocyjno-reklamowych w latach 2011-2018. *Kultura - Media - Teologia*, 48, 4, 367-391. <https://doi.org/10.21697/kmt.48.16>

36. Słowińska, M. (2019). Wykorzystanie testu chi-kwadrat w badaniach preferencji żywieniowych konsumentów. *Nauki inżynierskie i technologie*, 1(32), 14-38.
37. Stępień, M. (2016). *Wizerunek sportowca*. Mage.pl., 90-103.
38. Sznajder, A. (2012). *Sport Marketing*. Warszawa: PWE, 209.
39. Tylec, G. (2009). Zasady eksploatacji wizerunku sportowca członka kadry narodowej. *Przegląd Prawno-Ekonomiczny*, 9(4), 13-24. <https://doi.org/10.31743/ppe.15348>
40. Wesołowska, P. (2024). Wizerunek paraolimpijczyków w polskich mediach na przykładzie „Przeglądu Sportowego”. *Acta Universitatis Lodziensis. Folia Sociologica*, 89, 71-89. <https://doi.org/10.18778/0208-600X.89.05>
41. Xu, Q. (2025). Selfie Scores: A Scoping Review of Research on Athlete Social Media Self-Presentation. *Communication and Sport*. <https://doi.org/10.1177/21674795251315832>
42. Zielińska, K. (2021). *Budowanie wizerunku sportowca na przykładzie Kamila Stocha*. Praca magisterska. Uniwersytet Jagielloński.