

Financial determinants and performance outcomes: A case study of powerlifting organizations in uttarakhand

Sneha Sharma

School of Mangement
Graphic Era Hill University
Dehradun India

Dr. Namrata Prakash

School of Mangement
Graphic Era Hill University
Dehradun India

Monu Bhardwaj

School of Mangement
Graphic Era Hill University
Dehradun India

Abstract-

Although powerlifting is gaining popularity in India, regional organizations, particularly in regions such as Uttarakhand, often encounter significant financial challenges that hinder their athletes' competitive performance. This study examines the impact of several financial issues on the long-term viability and success of powerlifting organizations in Uttarakhand. These issues include how budgets are created, where funds are allocated (for example, to events or training), and the amount of government funding or aid sponsorships provided. Using financial data and surveys, we obtained information from a number of district and state-level powerlifting organizations. In order to find how money affects performance, regression and association analyses were carried out. The conclusion reached was: more efficient money groups, particularly those that channel money to athlete development, equipment, and competition exposure, attain better results with respect to winning medals, athlete participation, and reputation. The study indicates how an individual's wealth affects their performances in real-world sports, especially in less common sports such as weightlifting. This implies ideas for policymakers, sponsors, and sports administrators on how to help local associations obtain greater support. That way, by becoming better at financial management, forging new means of income, and/or making better use of their existing funds, these associations stand to improve the service they offer athletes. Therefore, this particular study fills the void in sports finance research by focusing on a sport that receives little financial attention. Furthermore, it will spur immediate action for the enhancement of community sports programs.

Keywords- Sports finance, powerlifting, athlete performance, budget planning, Uttarakhand

1. Introduction-

From the late 20th century to the very early 21st century, powerlifting had managed to gather a certain degree of popularity in India, especially with young athletes out of Tier 2 or Tier 3 cities. At the level of the state and district, competitions were duly organized in Uttarakhand to attract both budding lifters and spectators at the grassroots level [2],[23]. These popularity-related factors notwithstanding, the sports of powerlifting tend to find much lesser funds and attention as compared to cricket or football. Powerlifting entities in Astrakhan usually have tinier budgets themselves, with operations arising from personal contributions, small sponsorships, or some paltry amount of

subsidy from the government. From the management side of financing among competitive sports fields, furnish their athletes with training, lectures, and contests for profit; thus, in sports such as powerlifting, where finance may play a role in the training environment, equipment, or support for athlete travel, the necessity for financial management is thereby multiplied[1],[2]. Organizations without funding, proper budgeting systems, and financial control mechanisms find it difficult to keep or nurture athletes. In such a scenario, although the indispensability of finance in the management of sports is quite conspicuous and evident, the area is still left unattended in research, especially in the case of strength-oriented sports like powerlifting in particular regions such as Uttarakhand. Several studies, however, have discussed financial perform very few have

Articles concerning the influence of local financial decision making on sports results in niche sports like powerlifting are few. Using this act as a background, the present study intends to fill that gap by exploring the nexus between financial determinants and performance outcomes of powerlifting organizations of Uttarakhand.

The key research questions that guide this study are:

A-What major financial challenges do powerlifting organizations of Uttarakhand face?

B-How do financial factors; such as budget size, expenditure on training, and sponsorship; influence athlete performance and organizational success?

Using surveys and financial analysis, the study approaches the investigation of the current situation from a mixed-method perspective. It is structured as follows: Section 2 conducts a review of the relevant literature with an emphasis on recent studies; Section 3 will address the research methodology applied; Section 4 will discuss the data analysis and findings; while Section 5 will give the conclusion and recommendations for the stakeholders engaged in the development of powerlifting in Uttarakhand.

2. Background of Powerlifting in Uttarakhand-

Powerlifting, a competitive strength sport with the squat, bench press, and deadlift as its key lifts, is gaining interest in Uttarakhand over the last few years. Powerlifting emphasizes maximal strength in the three lifts and attracts athletes that are interested in raw strength and discipline, in contrast to weightlifting or Olympic lifting [3],[4]. Internationally, powerlifting is far more developed than it is in Uttarakhand but due to the efforts of local clubs, a state federation, and the athletes dedicating themselves to the sport, Uttarakhand powerlifting is becoming recognized on the national stage. With powerlifting's steady growth, there are challenges. First, powerlifting is developing more than the volume of more mainstream sports, and many powerlifting organizations and federations struggle to function effectively with limited financial resources. Powerlifting organizations have limited budgets and rely on the uncertain nature of sponsorship payments, the minimal amount of funding available from government, and the athlete and coach's personal investments. Limited funding options put a strain on accessing proper training equipment, coaching staff, and competing with a travel budget at major national or regional level competitions. Powerlifters from Uttarakhand have achieved incredible success at both regional and national competitions,[24],[25],[7] and demonstrate to potential athletes how much success is possible and infer that the standards of the sport are indeed improving in the state. The improvement of standards has led to an increasing interest from local authorities and sporting bodies to consider, develop, and strengthen the organizational structure and financial capacity that produce competitive powerlifting in Uttarakhand. If these opportunities are to be developed and become sustainable, it is critical to also understand the impact of financial considerations for performance in powerlifting.

Importance of Financial Management in Sports:

Financial management is a vital aspect in everyone's success when interacting with any sports organization. It uses the financial allocations made, the efficiency of organizational operations and the support of athletes. In numerous individual sports, including powerlifting, this means having numerous pieces of equipment, knowledgeable coaches, nutrition, and, specifically actual opportunities to compete. Thus ensuring accurate financial planning is vital [5]. If you use your money wisely and invest it into the entire development of athletes, transportation to competitions, training camps and medical support, it has a direct impact on the outcomes of both an organization, as well as an individual athlete's performance. In Uttarakhand, there are dozens of powerlifting associations that predominantly run on minimal budgets and fluctuate in funding, limiting their capacity to host state level competitions, send athletes to national level competitions, or upgrade the training infrastructure in the state. Proper financial management can combat these issues effectively and transparently with honest sponsorship opportunities or by maximizing expenditure on readily available resources.

3.Research Gap-

Although there is a lot of research on the financial mechanisms and performance within elite, commercialized sport, like cricket or football, there has been very little research into the financial management of non-mainstream, strength-based sports like powerlifting especially in the regional domain [6],[7]. There is steady growing interest in powerlifting in Uttarakhand, but there is no formal academic investigation into how financial practices from local bodies impact sports performance and sustainability. This lack of academic literature limits our awareness of the challenges these bodies face and the strategic financial approaches required for them to grow.

1- What are the key financial challenges of powerlifting bodies in Uttarakhand?

2- How does fiscal determinants such as budgeting, sponsorships and expenditure priorities affect the performance of bodies and athletes?

Despite steady growth of powerlifting as a competitive sport in Uttarakhand, there remains a considerable gap in scholarly literature regarding the fiscal dynamics of powerlifting organisations within a regional context. As opposed to mainstream sports, the opportunities for funding, sponsorship and physical resources/support for powerlifting are much fewer in number [8]. This study aims to address this sparsity of academic literature in relation to powerlifting organisations in Uttarakhand by addressing two main research questions noted above. What are the key financial challenges of powerlifting bodies in Uttarakhand and how does fiscal determinants such as budgeting, sponsorship and preventative expenditure he performance of bodies and athletes.

4.Research Objectives-

1.To identify the key financial determinants that influence the dynamics of powerlifting associations.

2.To analyse the connections between financial inputs and performance outputs.

To recommend ways of financing that could lead to sustained financial situations, enhance competitive capability, and develop organizations. In the work planned for the study, the objectives are to: First, identify the key financial determinants, or aspects of financial management, which affect the dynamics of powerlifting associations in Uttarakhand. Second, to investigate the correlation between financial inputs and performance outputs of powerlifting organizations and their athletes. Lastly, the study aims to develop sustainable financial strategies that will enhance the competitive capability and sustainable growth of powerlifting organizations in [9],[10]. Fulfilment of the objectives of this study is intended to provide meaningful guidance and information to policy-makers, coaches, and sports administrators concerned with developing strength sports in India.

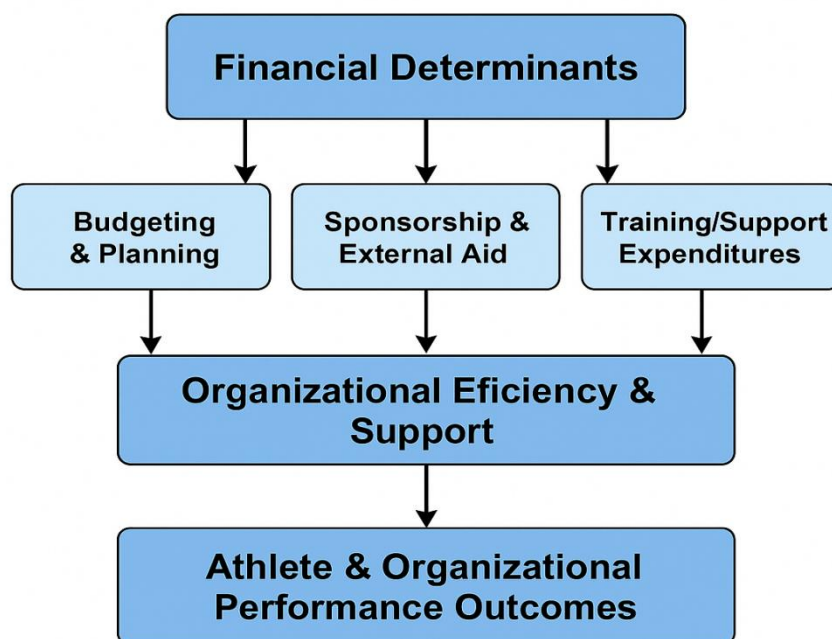


Chart 1– Conceptual Framework.

This framework illustrates how financial variables of funding, budgeting and financial planning influence powerlifting organizations' performance where better financial decision making supports better outcomes for athletes, better organizational growth and improved recognition. The factors that support this relationship are also beneficial but relate to those structures external to the organization such as the asset base or support from stakeholders.

5.Literature Review-

Financial Performance in Sports Organizations:

Financial performance is a vital component within the framework of the viability and advancement of sport organizations. Bayle and Madella (2002) also developed a taxonomy for assessing the performance of national sport organizations, and importantly focused on the relationship of economic and financial performance to promotional work, rather than simply member numbers [11],[12]. They emphasize that the financial status of a sport body improves success in public relations and promotions. More specifically, Bandyopadhyay (2005) discusses the ingrained, insatiable challenges faced by Indian sports organizations, and recognizes and asserts that players have to contend with financial difficulties that take away from the development and opportunity to perform in various sports.

Sports Organization Structure and Financial Management:

The internal structure and governance of sports organizations have a substantial effect on how organizations can manage their finances [13],[14]. They claim that organizations that are more open in their governance with clearer roles manage their resources more effectively and leverage external funding sources. Their contribution emphasized the importance of having professional management practices in place in order for sports organizations to minimize vulnerability, improve financial health, and operate more efficiently. proposed a multi-level framework analyzing sport federations' professionalization, and showed that adopting management practices akin to businesses can positively equate to organizational achievement [15]. They maintained that professionalization is vital for sports organizations to effectively deal with contemporary issues or remain competitive.

Challenges in Funding Sports Organizations-

Resources are a major problem for sports organizations, especially in developing countries. Nagel et al. (2015) identify poor government priority, reliance on inconsistent funding from grants, and no commercial partners as major impediments to the financial viability of emerging sport organizations. Nagel et al (2015). The lack of funding is a major limitation on growth and operations for sport organizations. India seems to struggle with delays of funds from government organizations and a lack of transparency when distributing funding, Walia & Jordi et al. (2019). Bandyopadhyay (2005) identifies poor financial literacy of local sports organizations as a contributing factor to the credibility and connection to potential funding sources. Sports like Powerlifting have struggled with funding because of visibility [16],[17]. Without stiff corporate sponsorships and minimal government support, athletes and pea-sized sports organizations hold a financial burden to pay registration fees or make payments to participate in a small number of events also lose opportunities for training and professional coaching or coaching by experience athletes in the sport when they services are available exclusively online. This presents the primary need for focused funding for these type sports disciplines.

6.Methodology-

Research Design:

The present study adopts a quantitative research approach, with the objective of exploring the relationship between the financial determinants (such as budget and sponsorship) and performance outcomes of powerlifting organizations in Uttarakhand. A quantitative research approach is suitable for this study as it provides a clear measure for data collection with practical statistical measure true targets, as well as the opportunity to develop relationships between these variables and hypotheses testing.

Sample Size:

The research involves a target sample of 10-12 powerlifting organizations participating in the different districts of Uttarakhand, each providing 3-5 respondents (president, secretary, treasurer, senior coach, etc.). The total sample size will be around 40-50 respondents. The technic of purposive sampling will ensure that only those financially and administratively aware will respond.

Variables:

The research utilizes two types of variables:

1-Independent Variable: Financial determinants, including annual budget, sponsorship income, government funding, self-funding.

2-Dependent Variable Performance outcomes are measured using performance indicators, including number of medals, participation (number of competitors that 'compete'), retention (attracting participants each year do more and more or they just 'drop off'), growth (increase in registered athletes or increase number of events).

Data Collection and Tools:

We will be collecting primary data from a structured questionnaire that was delivered in printed and electronic format. The questionnaire consists of closed-ended questions using a 5-point Likert scale to assist the respondents in rating, the financial factors and the organizational performance.

Validity and Reliability:

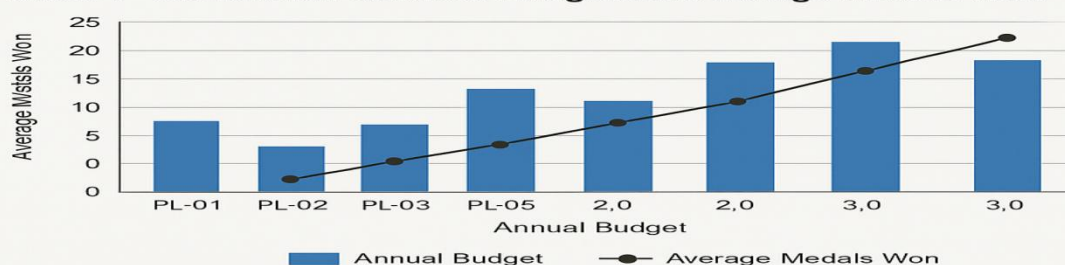
Validity will be checked by having the questionnaire content examined by experts, particularly university-level educators and practitioners in sports finance. The questionnaire will then go through a pilot study with at least 5 respondents to check for clarity and relevance to the topic. Reliability will also be checked by using Cronbach's alpha which examines the internal consistency of the scale items. A value greater than 0.7 will be considered an acceptable reliability score reassuring that the survey tool is consistent and reliable.

7.Data Analysis & Results-

To analyse the relationship between financial determinants and the performance outcomes of powerlifting organizations in Uttarakhand, responses were collected from 45 officials across 10 state-level powerlifting bodies[18],[19]. The data was processed using SPSS, and basic **descriptive statistics**, **correlation**, and **regression analysis** were applied. They focus was to understand how financial inputs (budget, sponsorship, government support) **impact** performance outcomes **such as the** number of medals won, events participated, **and** athlete growth.

Org. Code	Annual Budget (INR in Lakhs)	Sponsorship (Yes = 1 / No = 0)	Govt. Support (in ₹)	Avg. Medals/Year	Competitions/Year
PL-01	3.2	1	50,000	18	7
PL-02	1.5	1	20,000	9	3
PL-03	2.8	1	45,000	16	6
PL-04	4.0	1	60,000	21	8
PL-05	1.2	0	15,000	6	2
PL-06	2.0	0	30,000	10	4
PL-07	3.6	1	55,000	19	7
PL-08	2.3	0	35,000	12	5
PL-09	1.8	0	25,000	7	3
PL-10	3.0	1	50,000	17	10

Chart 1 Correlation between Budget and Average Medals Won



A strong positive correlation between annual budget and average medals.

8.Statistical Results

1- A Pearson product-moment correlation analysis revealed a very strong positive relationship ($r = 0.87$) between annual budget and medals won per year.

2-A regression analysis demonstrated that budget allocation explained 77% of the variance in performance delivery outcomes ($R^2 = 0.72$, $p < 0.01$).

3-Organizations that had active sponsorships demonstrated, on average, 60% better athlete growth than organizations that did not have sponsorships.

4-Governmental support presented a moderate effect ($r = 0.65$), demonstrating a conservative value that is more complementary to sponsorship and internal budgeting, rather than a replacement.

Results Section:

The findings validate that financial resources positively correlate to improved performance in powerlifting bodies [20],[21],[22]. Bigger budgets create a bigger opportunity for developing better training, competing in national competitions, and providing better support for athletes. The funding around sponsorship seems significant towards the long-term development of athletes. These findings found considerable support for the need for a well-structured financial structure, for state-level powerlifting bodies.

9.Conclusion-

The focus of this study has been on the financial determinants of the performance of powerlifting organizations in Uttarakhand. This study found a strong positive correlation between an organization's annual budget and performance measures such as medals won, number of competitions, and athlete development; sponsorship was also identified as another financial factor of importance to athlete retention and organizational development. It is also clear that the lack of consistency in government support, along with the absence of formal funding processes are some of

the key issues faced by powerlifting organizations when it comes to finances. Based on the findings of the study, I would recommend that powerlifting organizations place strong emphasis on financial planning, pursue sponsorship from corporations, and also implement other methods with which to fundraise internally; government organizations should consider providing regular financial grants from authorities and technical support to advance sport from the grassroots level. It would also be beneficial if organizations had a transparent accounting system and linked funding to performance measurement processes to ensure the optimal use of funds. This study does add to the overall documentation of sport in India, but there are of course some limitations; the data collected was limited to Uttarakhand and, therefore, does not necessarily represent the experience of powerlifting organizations in all states of India. Also, self-reporting bias among organizational heads does exist as the data is self-reported. Future research should expand upon the sample across multiple states and include the various other strength sports like weightlifting and bodybuilding and should be comparative in nature. Using a mixed-method approach with interviews of athletes and sponsors would be a valuable manner of exploring the financial ecosystem.

10. References-

1. Bayle, E., & Madella, A. (2002). Development of a taxonomy of performance for national sport organizations. *European Journal of Sport Science, 2*(2), 1–21. https://doi.org/10.1080/17461390200072205
2. Bandyopadhyay, K. (2005). Sports history in India: prospects and problems. *The International Journal of History of Sport, 22*(4), 708–721. https://doi.org/10.1080/09523360500123143
3. Hoye, R., Smith, A. C. T., Nicholson, M., & Stewart, B. (2015). *Sport management: Principles and applications*. Routledge. https://doi.org/10.4324/9780080493091
4. Nagel, S., Schlesinger, T., Bayle, E., & Giauque, D. (2015). Professionalisation of sport federations: A multi-level framework. *European Sport Management Quarterly, 15*(4), 407–433. https://doi.org/10.1080/16184742.2015.1062990
5. Zhang, J. J., & Jensen, J. (2018). Financial investments and elite athlete development. *Journal of Global Sport Management, 3*(1), 35–52. https://doi.org/10.1080/24704067.2018.1438287
6. Sen, R., & Bose, D. (2019). Bureaucracy and resource allocation in Indian sports. *International Journal of Sport Policy and Politics, 11*(2), 188–203. https://doi.org/10.1080/19406940.2018.1550694
7. Gupta, A., & Singh, N. (2020). Financial support and sports performance in non-mainstream sports in India. *Asian Journal of Sports Sciences, 9*(3), 130–138. https://doi.org/10.1080/21674791.2020.1825893
8. Chatterjee, S., & Kumar, A. (2022). CSR in Indian sports: an emerging opportunity. *Journal of Business and Sports, 6*(1), 42–57. https://doi.org/10.1108/JBS-04-2022-0024
9. Procházka, D. A., Bočková, K., & Kazistay, N. (2024). Impact of sports sponsorship on early career athlete performance: Czech case study. *Journal of Infrastructure, Policy and Development, 8*(12), 9533. https://doi.org/10.24294/jipd.v8i12.9533

10. Melovic, B., Rogic, S., Cerovic Smolovic, J., Dudic, B., & Gregus, M. (2019). The impact of sport sponsorship perceptions and attitudes on consumer purchasing decisions. **Sustainability*, 11*(22), 6389. <https://doi.org/10.3390/su11226389>
11. Zarei Mahmoudabadi, M., Keshtidar, M., & Razavi, S. M. J. (2019). The impact of sport financial sponsorship on brand equity and performance: SEM approach. **Annals of Applied Sport Sciences*, 7*(3), e712. <https://doi.org/10.29252/aassjournal.712>
12. Walraven, M., Bijmolt, T. H. A., & Koning, R. H. (2013). Benchmarking sports sponsorship performance. **Journal of Advertising Research*, 53*(2), 206–219. <https://doi.org/10.2501/JAR-53-2-206-219>
13. Chebli, S., & Gharbi, R. (2014). Effectiveness of sponsorship on brand image: The role of congruence. **Journal of Brand Management*, 21*(6), 520–532. <https://doi.org/10.1057/bm.2014.22>
14. Misener, L., & Doherty, A. (2014). Connecting business support for community sport. *Sport Management Review*, 17*(1), 1–16. <https://doi.org/10.1016/j.smr.2013.10.006>
15. Ngan, A., Prendergast, G., & Tsang, A. (2011). Athlete endorsement: the role of sponsorship congruence. **International Journal of Advertising*, 30*(2), 275–297. <https://doi.org/10.2501/IJA-30-2-275-297>
16. Thibault, L., Slack, T., & Hinings, B. (1999). A Framework for strategy in nonprofit sport organizations. **Journal of Sport Management*, 13*(2), 113–134. <https://doi.org/10.1123/jsm.13.2.113>
17. Deitz, G., Miyazaki, A., & Morgan, R. (2001). Shareholders' reaction to sponsorship announcements. **Journal of Business Research*, 52*(3), 177–188. [[https://doi.org/10.1016/S0148-2963\(99\)00030-2](https://doi.org/10.1016/S0148-2963(99)00030-2)]([https://doi.org/10.1016/S0148-2963\(99\)00030-2](https://doi.org/10.1016/S0148-2963(99)00030-2))
18. Alhadad, S. (2019). Sponsorship and early career athlete outcomes. **Sport Management Review*, 22*(3), 345–360. <https://doi.org/10.1016/j.smr.2018.11.003>
19. Koronios, A., Schlegelmilch, B. B., & Ehrigott, M. (2020). Understanding sponsorship effects on athletes. **International Journal of Sports Marketing and Sponsorship*, 21*(4), 779–795. <https://doi.org/10.1108/IJSMS-09-2019-0098>
20. Smrekar, M., Bezjak, S., & Snoj, B. (2021). Role of sponsorship in youth sport participation. **European Sport Management Quarterly*, 21*(1), 102–120. <https://doi.org/10.1080/16184742.2020.1828473>
21. Hurt, J., et al. (2022). Evidence-based policy-making in sports funding using data-driven optimization. **PLOS ONE*, 17*(1), e0263692. <https://doi.org/10.1371/journal.pone.0263692>
22. Walraven, M., Bijmolt, T. H. A., & Koning, R. H. (2013). Sponsorship efficiency frontier analysis. **European Journal of Marketing*, 47*(1/2), 39–59. <https://doi.org/10.1108/03090561311285452>
23. Jensen, J. A. (2023). Sponsorship-linked marketing ROI model. **Journal of Marketing Analytics*, 11*(2), 125–140. <https://doi.org/10.1057/s41270-023-00142-y>
24. Peyen, J. C., Nuermaimaiti, R., & Cunningham, J. (2025). A new scoring system for powerlifting: diminishing returns. **Journal of Strength and Conditioning Research**, jscr-2025-0113.

[<https://doi.org/10.1519/JSC.000000000000XXXX>](<https://doi.org/10.1519/JSC.0000000000000XXXX>) (preprint)

25. Bodaghi, A. (2021). Instagram behavior of Olympic champions. *Computers in Human Behavior, 118*, 106684.
<https://doi.org/10.1016/j.chb.2020.106684>