

# Exploring the Role of Social Media Use and Knowledge Management in Enhancing Competitive Performance: The Mediating Effect of Open Innovation Capability and Innovativeness

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## Abstract

**Aim:** Is this study investigates the potential direct and indirect effects of social media use, knowledge management, and innovation concepts (open innovation and innovativeness) on nonprofit sports teams' competitive performance.

**Methodology:** 342 authentic surveys were gathered online from Iranian nonprofit sports club board members. To examine the connections between variables, structural equation modelling was employed.

**Findings:** : The findings show that knowledge management and social media use improve competitive performance through two distinct sequential mediators: innovativeness and open innovation.

**Implications/Novel Contribution:** Nonprofit sports organisations should benefit from encouraging social media use and knowledge management by, for example, allowing the creation and dissemination of new knowledge by utilising both internal and external knowledge sources. Sports teams can improve their ability to use outside information and cultivate a positive outlook on novelty and creativity by doing this, which will enable them to innovate more and perform better. The study offers managerial and theoretical ramifications that support sports teams in improving many facets of their organisational performance and innovating.

**Keywords:** Social Media Use, Knowledge Management, Open Innovation, Innovativeness,, Competitive Performance

**Received:** 17 October 2023 / **Accepted:** 19 December 2023 / **Published:** 19 March 2024

## INTRODUCTION

Innovation in nonprofit sports clubs has been the subject of several sport management studies during the last ten years (Corthouts, Winand, & Scheerder, 2023; Omondi-Ochieng, 2021). Nonprofit sports organisations (NPSOs) must mobilize assets, personal knowledge, and experience to innovate in light of the competitive pressure on them to draw members and resources like donations, loans, and establishments Moreau (2021) and to set themselves apart from business sport providers (Król, 2020). By using knowledge management, non-profit sports organizations can increase their organizations' intangible assets and become more effective and adaptable to the needs of their members (Delshab, Winand, Sadeghi Boroujerdi, Hoerber, & Mahmoudian, 2022). With only a few studies (Adamides & Karacapilidis, 2020; Cepeda-Carrion, Ortega-Gutierrez, Garrido-Moreno, & Cegarra-Navarro, 2023; Ghazwani & Alzahrani, 2024), KM in NPSOs is, nevertheless, a little-studied topic in the field of sport management. Delshab et al. (2022) urged more study that uses innovation and knowledge management to improve our comprehension of how sports organisations are run.

One of the most important channels of communication for organisations is social media (Cepeda-Carrion et al., 2023; Borah, Iqbal, & Akhtar, 2022). Social media is seen as a tool for promoting communication channels and uniting people via content sharing (Sun & Liu, 2023). A growing number of companies have implemented social media strategies in recent years, underscoring the significance of digital business strategies as a fundamental means of altering our modes of creation, consumption, and communication (Cepeda-Carrion et al., 2023). This phenomenon has the power to change management culture and relationships. In addition to offering a robust

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channel for cooperation (Ghazwani & Alzahrani, 2024), it can enhance online cooperation with clients, partners, and suppliers, boost an organization's capacity for innovation Subagja, Ausat, Suherlan, et al. (2022), and potentially boost an organization's capacity to generate new concepts and create services and goods (Saura, Palacios-Marqués, & Ribeiro-Soriano, 2023).

Open Innovation has unquestionably established itself as a paradigm in innovation strategy. Adamides and Karacapilidis (2020) emphasised the importance of development and value generation in the innovation process in their assessment of definitions of organisational innovation. In order to progress, compete, and set themselves apart in their market, they saw innovation as the "multi-stage process whereby organisations transform ideas into new/improved products, services, or processes" (Pundziene, Nikou, & Bouwman, 2022). Therefore, innovations add value when they result in performance gains that benefit the club and its members (Cepeda-Carrion et al., 2023). Recent research has demonstrated the beneficial impact on innovation in NPSOs by utilising external information acquired through collaboration with partners, including government agencies and sports federations (Saura et al., 2023). How knowledge management in non-profit sport organization promotes open innovation and capabilities on inventiveness is still unknown.

Research on innovation in non-profit sports organisations has shown that key personnel's attitudes play a significant role in the success of innovations (Borah et al., 2022). In order to promote positive attitudes towards innovation, Pundziene et al. (2022) proposed that social media use and information management within non-profit sport organisations propagate the idea that successful innovation occurs. Finding out if KM affects open innovation skills in non-profit sports organisations is the next stage. Since they hold the highest strategic or management roles and are experienced in club development and innovation execution, we concentrate on key board members of non-profit sports clubs in this study (i.e., president, board member, general secretary) (Ghazwani & Alzahrani, 2024). By emphasising the part knowledge management and social media use plays in innovation concepts in non-profit sports organizations, our work adds to the body of research on innovation and competitive performance. Additionally, it advances our understanding of innovation as a major factor influencing non-profit sports organizations' competitive performance.

This is how the rest of the paper is organised. First, we go into greater detail about the ideas of knowledge management, innovation, and competitive performance in non-profit organisations, as well as how they are related to one another. Next, we conceptually establish the study framework that suggests knowledge management enhances non-profit organizations' through innovativeness and open innovation. We then go over the methodology, which includes the variables examined, the research context, and the statistical analysis carried out. Following the reporting and discussion of the results, research and practical implications are discussed. We go over the study's shortcomings, suggest directions for further investigation, and highlight the main conclusions in the conclusion.

## **THEORETICAL BACKGROUND**

### **Social Media in nonprofits Sports Clubs**

Scholarly interest has recently been drawn to a deeper comprehension of social media's function in generating and disseminating knowledge both inside and outside of organisations, which can lead to fresh concepts for the creation of new goods and services (Borah et al., 2022). Examining how social media use might improve open innovation initiatives in NPSOs is becoming more and more popular in both the commercial and academic sectors. According to (Subagja et al., 2022), social media is "a collection of Internet-based applications that expand upon the conceptual and technological underpinnings of Web 2.0, and that facilitate the production and sharing of user generated content". Facebook presently holds the top spot in terms of people worldwide, with 2.85 billion monthly active users, followed by YouTube (2.29 billion) and WhatsApp (2 billion user bases). Social media technology is a collection of web applications created using Web 2.0 technologies that facilitate the creation and sharing of consumer content. Social media is one of the medium that has changed over the past ten years. As information technology advances, social media changes as well, impacting all businesses and industries (Saura et al., 2023). One persuading issue in the process of growing entrepreneurial activity has been identified as the increased use of social media to improve competitive performance (Sun & Liu, 2023). Social media usage highlights the importance of digital business strategies that aim to change how we communicate, collaborate, consume, and produce goods Susanto et al. (2023). Businesses can enhance their quality in creative, interactive ways by utilising social media

platforms (Ozimek, Brailovskaia, & Bierhoff, 2023). Social media is often associated with marketing. According to Sun and Liu (2023), social media developed into a complimentary extension of all marketing initiatives throughout time, despite the fact that early social apps were mostly focused on advertising and marketing challenges. Spreading general information, communicating with customers directly, and distributing tailored advertising are the main objectives of using social media platforms (Martín-Rojas, Garrido-Moreno, & García-Morales, 2023). For nonprofit sports organisations, social media has emerged as a game-changing tool that offers an economical and effective way to interact with audiences, create communities, and further their goals.

### **Knowledge Management in Nonprofits Sports Clubs**

Applying expertise is the process of understanding and knowledge management (KM) is a part of the knowledge flow, which is the act of producing, disseminating, and using knowledge (Ghazwani & Alzahrani, 2024). According to Lam, Nguyen, Le, and Tran (2021), the primary focus of knowledge management (KM) "progressively moved from tools, contextual dimensions of knowledge, to knowledge embedded in processes and people". Different groups of elements can be categorized using a range of KM processes. Wijaya and Suasih (2020) address the generation, storage, sharing, and application of knowledge, whereas Karamitri, Kitsios, and Talias (2020) address its acquisition, creation, storage, distribution, application, and maintenance. This investigation highlights that knowledge management is a comprehensive concept that encompasses all of the elements covered by the previously described definitions. According to Cepeda-Carrion et al. (2023), knowledge management is an intellectual pursuit for the era of information. For NPSOs to perform competitively, KM is crucial. According to Delshab et al. (2022), as with other businesses, sports organisations "need to successfully capture, share, manage, and harness their corporate knowledge to reduce uncertainty of outcomes and to coordinate and facilitate strategy and policy implementation." Furthermore, KM is a successful endeavor to suit the demands of various sports markets and advance an NPSO's ability for innovation (Adamides & Karacapilidis, 2020). Therefore, it is anticipated that KM implementation will lead to improved operations and easier access to sponsors, organisational partners, and other important stakeholders. Given that they are less accustomed to KM procedures than for-profit companies, this could present difficulties (Gyemang & Emeagwali, 2020).

### **Innovation in Nonprofits Sports Clubs**

According to Ferreira, Coelho, and Moutinho (2020), innovation is defined as what the unit of adoption (i.e., the NPSO) deems to be "new" or carried out "for the first time" in their organisation. New sports programs (i.e., ones that were not previously offered by the club), services aimed at new members or under-represented groups, or novel organisational procedures (e.g., automated scheduling, social media platforms) are examples of innovations in NPSOs (Kim & Choi, 2020). Adding pertinent external knowledge to a company's existing knowledge base is known as an outside-in open innovation strategy. According to Borah et al. (2022), organisations increasingly find it very challenging to generate knowledge because of market dynamism and technological volatility. As a result, Corthouts et al. (2023) proposed that businesses seek for an inflow of knowledge coming from beyond their borders by implementing an open innovation approach. According to Saura et al. (2023), NPSOs use innovations in a variety of areas of their business, from little adjustments to the operational and management areas to more significant ones like implementing new organisational and sports structures.

### **Open Innovation Capability**

The concept of open innovation was later expanded by Adamides and Karacapilidis (2020) to include managed information flows across organisational boundaries through a distributed innovation process that employs various mechanisms in accordance with the business model of the company. Additionally, open innovation enables a company to integrate knowledge from both internal and external sources into its systems and organisational architecture, the needs of which will be determined by its business model. Delshab et al. (2022) state that under the open innovation paradigm, businesses exchange ideas and knowledge both internally and externally and work to create a more porous and cooperative barrier between themselves and their surroundings. Three types of open innovation techniques are described by academics in the literature: coupled Cepeda-Carrion et al. (2023), inside-out (also known as outbound), and outside-in (also known as inbound). In keeping with open innovation, several sports organisations are collaborating more and more and utilising R&D partnerships to innovate. Inbound, outward, and

linked innovation are the three main activities that make up open innovation, according to (Saura et al., 2023)). The significance of inbound innovation processes for NPSOs' open innovation initiatives has been the primary focus of studies. Knowledge transfers across NPSOs have occurred "via shared experiences and learning, such as getting to know factor attaining new skills," claim (Lam et al., 2021; Pundziene et al., 2022). In order to share the risk of innovation and execute new concepts through outward innovation processes, creative nonprofit sports organisations must also collaborate with outside partners (Adamides & Karacapilidis, 2020; de Zubielqui, Fryges, & Jones, 2019).

### Innovativeness

According to Ferreira et al. (2020), "creating new processes that involve an advancement in the way things are currently conducted" is what it means to be innovative in sport. When an organisation "exhibits innovative behaviour consistently over time," it is demonstrating high levels of innovation (Kim & Choi, 2020; Ng, Kee, & Ramayah, 2020). Using the definition provided by Valdez-Juárez and Castillo-Vergara (2021), we define innovativeness as the creative actions taken by NPSOs to successfully introduce new administrative services, create new sporting events, or meet the evolving needs of their stakeholders, with the goal of continuing to do so over time (Cepeda-Carrion et al., 2023; Pundziene et al., 2022).

### Competitive Performance in Nonprofits Sports Clubs

Both financial and nonfinancial metrics are included in the notion of competitive performance (Ghazwani & Alzahrani, 2024). According to Traboulsy (2023), competitive performance in NPSO can be defined as "the acquisition of necessary resources and their efficient use through the organisation processes to achieve relevant and targeted goals, as well as high satisfaction of the organisation stakeholders." This definition is multifaceted and operational. We applied a four-dimensional competitive performance method (finance, sport, member, and strategy) in accordance with this description. This technique was based on the conceptual work of Pundziene et al. (2022); Wijaya and Suasih (2020). According to Ning and Yao (2023) financial and member measurements should not be the only perspectives evaluated to determine organizational performance. They suggest two more elements internal business processes and learning and growth to symbolize the important issues inside an organisation using the Balanced Scorecard.

### Model Development, Variables and Hypothesis

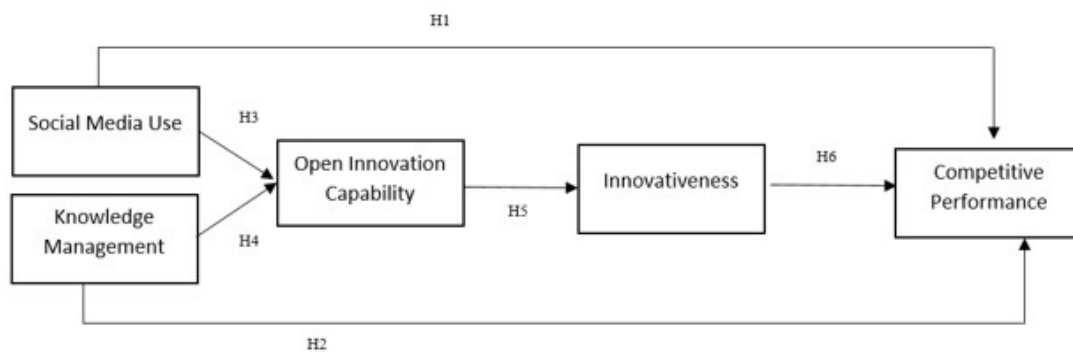


Figure 1. Conceptual Mediation Model and Hypothesis

One excellent illustration of how information technology affects business, both internally and externally, and at the corporate and operational levels, is social media (Borah et al., 2022). They change how businesses interact with both their clients and staff (Susanto et al., 2023). Social media platforms have the ability to boost productivity and innovation while also generating new corporate value when used properly. Social media serves as a platform that encourages media users to collaborate and share information in order to produce and/or disseminate content (Saura et al., 2023). Through these platforms, the focus of Internet services has changed from being consumption-based to

being more collaborative and participatory, opening up new avenues for communication between the public and organisations (Ghazwani & Alzahrani, 2024). Social media can encompass both mobile and web-based technology. Businesses must think about utilising social media due to the shifting customer patterns. According to Ozimek et al. (2023), marketing managers ought to be aware of the influence and importance of the conversations that customers are having on social media. Many studies that aim to evaluate business success over time and within specific marketplaces employ competitive performance as a variable. Cepeda-Carrion et al. (2023), for instance, assessed a firm's competitive actions and their connection to specific business settings. The importance of the non-financial variables of competitive firm performance increased with the degree of environmental uncertainty. In that case, a company's strategy for innovation, new product development, and R&D project investments are crucial success determinants (Cepeda-Carrion et al., 2023; Subagja et al., 2022). Firm competitive performance or relational performance (Cepeda-Carrion et al., 2023) are two nonfinancial metrics that largely represent a company's performance in relation to its rivals. The best way to assess a competitive performance is to compare it to both immediate competitors and the industry as a whole (Martín-Rojas et al., 2023; Ozimek et al., 2023). We conclude from these considerations that the relationship between social media use and competitive performance is directly influenced (H1).

Facilitating knowledge management processes to assist individual and organisational learning is a crucial tool to improve the performance of NPSOs, given their difficult goals and limited resources. Adamides and Karacapilidis (2020) assert that NPSOs have greater success in recruiting and retaining members. It is believed that applying KM will increase the competitive performance of NPSOs because it has been generally regarded as a platform to improve performance (Cepeda-Carrion et al., 2023; Delshab et al., 2022; Ghazwani & Alzahrani, 2024). KM procedures have been seen as a successful way to foster an innovative culture and increase organisational members' effectiveness while launching new goods and services. Knowledge sharing, for instance, fosters closer relationships among members of an organisation, which enables them to discover new approaches to jobs and identify fresh approaches to old ones, making them more creative (Karamitri et al., 2020). Given the challenges NPSOs face to become more innovative and provide better services to their members, it would be important to investigate KM processes that encourage them to pursue innovations (Wijaya & Suasih, 2020). In nonprofit sports organisations, knowledge management can foster an environment that enhances members' capacity to offer creative services and events. These arguments lead us to believe that NPSOs will function better as an organisation the more innovative they are. The indirect impact of knowledge management on internal and financial processes of an organisation through an increase in innovation capability was also supported by prior study (Lam et al., 2021). We conclude from these considerations that the relationship between KM and competitive performance is directly influenced (H2).

**H1:** Social media use directly influence on competitive performance.

**H2:** Knowledge management directly influence on competitive performance.

Sun and Liu (2023) proposed that NPSOs focus on information gathered from both internal (such as members) and external (such as board members' places of employment, other community sport organisations, and societal trends) sources. Social media and web 2.0 platforms are being used more and more by businesses that are involved in inbound open innovation to help them search externally and access the wealth of different knowledge that exists outside of their borders (Corthouts et al., 2023). Because they enable users to create, edit, and share information in a collaborative and participatory manner, social media refers to a collection of Internet-based apps that are distinguished by user-generated content (Saura et al., 2023). Company-sponsored blogs, collaborative websites (like wikis), content sharing websites (like YouTube, Flickr), social networking sites (like Facebook), innovation hubs (like a centralised customer community to foster innovation), and other platforms are examples of common social media platforms. Ghazwani and Alzahrani (2024); Saura et al. (2023) pointed out that there are risks associated with open innovation when there is no internal framework that defines the business's dedication to open innovation, despite Borah et al. (2022) arguing that open innovation should be based on the establishment of open innovation initiatives that integrate outside expertise through social networks and online platforms. (Delshab et al., 2022) emphasised the significance of managers' roles and their strategic backing of open innovation. Lam et al. (2021), (Valdez-Juárez & Castillo-Vergara, 2021) found that firms have unfavourable opinions about outside



information and communication-based collaboration. Consequently, nonprofit sports organisations can become more innovative through open innovation and social media use (H3).

Effective coordination of management and frontline staff efforts towards the desired results of the open innovation is ensured by effective collaboration among various internal units and functions, which also guarantees the timely flow and sharing of necessary expertise and information. Most of the time, open innovation are underestimated (Cepeda-Carrion et al., 2023; Wijaya & Suasih, 2020). The inside-in notion generally implies that the effective interaction of internal units and functions inside the company should be covered by the inclusivity of various stakeholders in open innovation processes. Organised efforts across internal organisational boundaries to achieve better open innovation outputs could be viewed as an inside-in open innovation process, according to our thinking. Organisations can adopt the idea of open innovation by using knowledge management (KM) to efficiently use their current knowledge (knowledge exploitation) and acquire new knowledge outside of their bounds to innovate (Adamides & Karacapilidis, 2020). Knowledge is viewed as a vital resource for businesses, and any organisation must learn how to manage, utilize, and apply knowledge (Gyemang & Emeagwali, 2020). Knowledge management has enhanced performance beyond what was previously possible and helps to reconfigure tasks. According to Delshab et al. (2022), businesses that generate knowledge across all divisions can achieve better competitive outcomes. Each company's ability to compete depends on its knowledge management. Although producing and applying knowledge might be challenging, knowledge is widely acknowledged as a strategic asset that helps businesses gain a long-term competitive edge (Lam et al., 2021). According to Saura et al. (2023), KM and innovation when properly combined can give businesses the ideal combination of resources to help them make wise decisions. Therefore, for businesses to maintain a competitive edge, innovation and effective knowledge management are essential. High levels of knowledge management, including knowledge generation, application, and distribution within the organisation, are necessary for an innovative firm to succeed (Cepeda-Carrion et al., 2023). According to Lam et al. (2021), an organization's capacity to investigate and utilize knowledge in open innovation is represented by its knowledge gathering, storage, and application capabilities. Therefore, we believe that KM could improve open innovation in sports organisations that are nonprofits (H4).

**H3:** Open innovation capability mediates the relationship between social media use and innovativeness.

**H4:** Open innovation capability mediates the relationship between knowledge management and innovativeness.

Although it has been demonstrated that NPSO employees support innovation and change Kim and Choi (2020), nothing is known about how KM influences people's attitudes towards innovation. Because they are more committed to certain areas and have less reluctance to change, staff experience and preferences with particular knowledge favor the deployment of specific types of innovation in NPSOs (Ng et al., 2020). Staff members adopt an innovative mindset to become more competitive and handle their competitive environment since NPSOs innovate to draw and keep members. NPSOs that believe they must be competitive are more likely to be innovative, claim Delshab et al. (2022). Research has shown that the degree of innovativeness within NPSOs is largely dependent on attitudes that support the introduction of new information (Kim & Choi, 2020; Subagja et al., 2022). High-innovativeness firms are more able to use open innovation inputs, such knowledge-sharing networks and external collaborations, to develop distinctive value propositions. These businesses turn outside opportunities into unique products that promote competitive difference by cultivating an innovative and experimental culture. Open innovation initiatives are certain to produce measurable performance results because of this connection between internal creative processes and external information acquisition. Research backs up the idea that being inventive increases the effectiveness of open innovation techniques by making it easier to explore undiscovered prospects and lowering the risks involved in working with other parties (Ng et al., 2020). Businesses that prioritise innovation, for example, are better able to integrate many knowledge sources, resolve divergent viewpoints, and create ground-breaking solutions. Because of their flexibility, they are able to outperform rivals who might have comparable open innovation skills but lack an innovative and experimental culture. Therefore, it is believed that innovativeness can help people at all levels of nonprofit sports organisations adopt a constructive outlook on open innovation and competitive performance (H5).

**H5:** Innovativeness mediates the relationship between open innovation capability and competitive perfor-

mance.

## **METHOD**

### **PROCEDURE AND SAMPLE**

At the national and state levels, Iran's non-profit sports clubs seek to enhance their members' athletic abilities and levels of physical activity through sport and leisure activities (Moreau, 2021). The Iranian government has been investing more in the construction of recreational sports facilities in recent years in an effort to enhance public well-being and offer top-notch facilities in order to create a strong sports nation. Iran, as a developing nation, has begun to adopt knowledge management (KM) procedures "because of the government's regulatory policy and the increased competition among various industries and service organisations" (Delshab et al., 2022). Accordingly, Iranian sport organisations must acknowledge knowledge management (KM) procedures as a new way to promote the novelty and quality of their services in order to satisfy the interests and demands of their members (Corthouts et al., 2023).

Board members of neighborhood charity sports clubs in the Iranian were the subject of an online survey used to gather data for the current study, which was conducted in 2024. At the time of data collection, these provinces had 1,151 nonprofit sports clubs. The email addresses of nonprofit sports groups were supplied for this study by the four provincial youth and athletics organisations, one umbrella organisation per province. Participants were notified in an invitation letter that the survey was anonymous and would only be utilised for the study. In accordance with (Król, 2020), we requested that clubs make sure the survey respondent was knowledgeable about club management and actively involved in managerial decision-making.

Questions concerning knowledge management, innovative ideas, and the clubs' competitive performance were posed to those who responded. 342 directors of non-profit sports organisations (response rate: 52.67%) took part in the survey following a period of invitations to promote involvement. Each member of the board of directors represent a local club. The majority of the respondents were male (79.86%), between the ages of 32 and 42 (34.51%), and with an undergraduate degree (38.91%). The individuals who took part had an average of 14.2 years (SD = 12.3) with their clubs, ranging from less than a year to 39 years, and 7.1 years (SD = 3.2) with their present club work, ranging from less than a year to 42 years. Eighteen different sports were represented by those who participated. The clubs ranged in size from 20 to 1500 members, with an average of 342 members (SD = 513.2). More than half of the clubs (n = 187; 72%) only used volunteers, whereas the remaining clubs (n = 112; 7%) also employed paid personnel, including executives, instructors, representatives, and paid employees for serving refreshments.

### **Measures and Variables**

To measure social media use construct with 7 items was used by Ozimek et al. (2023). Knowledge management was measured with 6 items by (Karamitri et al., 2020). Open innovation was captured via five items adapted from Pundziene et al. (2022). Innovativeness was measured with five items respectively by adapting the scale used by Knowles, Hansen, and Dibrell (2008). Competitive performance was consisting of four items by Pundziene et al. (2022). A 5-point Likert scale, with 1 denoting "completely disagree" and 5 denoting "completely agree," was used to measure the items (see Table 1).

### **Data Analysis**

Three stages of data analysis were carried out. In accordance with two-step methodology, Confirmatory Factor Analysis (CFA) was initially carried out to assess the validity and reliability of each concept in order to gauge the quality of the measurement models. We accomplished this by following Hair Jr, Black, Babin, and Anderson (2010)'s model fit criteria and utilising model fit indices such the standardised root mean square residual (SRMR) and root square R2. Cronbach's alpha and composite reliability values were computed to assess the measures' reliability. Convergent and discriminant validity were tested using factor loading and average variance extracted (AVE) values (comparing the squared roots of the AVE values with the correlation coefficients among the constructs). The direct and indirect correlations between components were then examined through analysis using SmartPLS 3.0 (Hair, Sharma, Sarstedt, Ringle, & Liengaard, 2024). The variance inflation factor (VIF) and tolerance were used to test for multi-collinearity. Lastly, we employed the bootstrapping approach (5000) with

95% bias-corrected confidence intervals to test for mediating effects (Hair et al., 2024) If an indirect effect’s 95% bootstrapped confidence intervals exclude zero, it is deemed significant.

## RESULTS

### Assessment of the Psychometric Properties of the Measures

When all variables have been provided by the same source at the same moment and data are gathered using self-reported surveys, common method variance must be investigated. If one latent factor accounts for more than half of the explained variability, common method bias (CMB) becomes an issue (Hair et al., 2024). We loaded every item we utilised in our testing into an exploratory factor analysis in order to test for possible CMB using Harman’s single factor test. As anticipated, a number of components surfaced, with the first one accounting for just 29% of the data’s variation, which was below Harman’s recommended criterion of .50 for displaying CMB (1976). This finding shows that there was no discernible CMB present in the investigation.

Professionals and experts in marketing, sports administration, and advertising for sports evaluated the measures’ face validity. A Cronbach’s alpha score of .70 or higher is regarded as satisfactory, per Hair et al. (2024). The Cronbach’s alpha values, which range from 0.789 to 0.897 in Table 1, are considered satisfactory. Additionally, all of the constructions had CR values between 0.864 and 0.921, above the cutoff point of .70 (Hair et al., 2024). The degree to which the items accurately reflect the desired latent construct is measured by convergent validity. AVE and factor loadings are used to evaluate it (Hair et al., 2024). Convergent r was also attained because all constructions had AVE values between 0.532 and 0.701, above the minimal requirement of .50.

Table 1: Psychometric Properties of the Measures

Measures	AVE	CR	
Social Media Use	0.532	0.887	0.849
I look at the photo albums of other users.			
I read the comments on my own pictures.			
I read through the comments on other users’ pictures.			
I read entries on the chronicles and personal pages of other users.			
I read private messages that other users send me			
I look at the profiles/pages of other users, or read through them.			
I look at the stories of my friends/ my subscriptions.			
Knowledge Management	0.661	0.921	0.897
When I know something is useful for my colleagues, I inform them.			
I could participate in a seminar because I like knowledge even if I would not receive credit or a certificate			
When I share my knowledge, I bond with my colleagues.			
I create knowledge through observation of the working environment.			
I have higher chances of promotion where I possess knowledge.			
When I help my colleagues, they help me, respectively.			
Open Innovation Capabilities	0.701	0.921	0.892
We develop new ideas with our federation.			
We closely collaborate with partners to provide new services			
We develop new ideas with our members.			
Existing processes and decision-making tools support each stage of innovation development			
It is clearly set when to proceed with innovative product/ service development, when to cut it, increase/decrease investment, etc.			
Innovativeness	0.667	0.909	0.874
My club offers innovative services.			
My club addresses the new expectations of members.			
My club develops new activities.			
When it comes to creating new products, our company is far better than the competition.			
Over the past three years, our company has been better than before regarding developing new products.			
Competitive Performance	0.614	0.864	0.789
Sales of our enterprise rise more than 20Sales of our enterprise rise faster than sales of our competitors			
Our enterprise’s new products/ services receive better evaluations than the new products/services of our competitors.			
Our enterprise creates more products/services per year than our competitors.			

The degree of differentiation between latent constructs is measured by discriminant validity. According to Fornell and Larcker (1981), it is established if a construct’s square root of AVE is greater than the correlation coefficients between the construct and the other constructs. Table 2 displays the correlations between the constructs. Discriminant validity was demonstrated by all correlation coefficients between constructs being less than their corresponding square roots of the AVEs. Table 2 also provides the constructions’ mean and standard deviation values.



The model's constructs social media use, knowledge management, open innovation capability, innovativeness, and competitive performance were examined for goodness of fit using CFA. We employed multiple fit indices, including SRMR, to evaluate how well the scales' constructions fit the data.

Table 2: Discriminant Validity

	1	2	3	4	5
CP	0.784				
Ino	0.567	0.817			
KM	0.448	0.650	0.813		
OIC	0.541	0.815	0.746	0.837	
SMU	0.708	0.719	0.605	0.706	0.729

### Assessment of the Hypothesized Relationships

The direct influence of knowledge management on competitive performance as well as the isolated effects between variables are shown in Figure 2 and Table 3. All of the direct channels in the hypothetical structural model were significant at the .05 probability level, according to the global model fit test, which produced satisfying findings. H1 was supported by the path regression estimates shown in Table 3, which showed that social media use significantly impacted competition performance ( $b = 0.662, p < .001$ ). Competitive performance was significantly impacted by knowledge management ( $b = 0.202, p < .001$ ) (H2).

Table 3 also shows the indirect impacts of the mediating variables that link knowledge management, competitive performance, and social media use. These effects are related to hypothesis 3, 4, and 5. For significance, these effects employ the bootstrap method (Fornell & Larcker, 1981). When a bootstrap interval includes "0," all indirect effects are significant at 95% confidence intervals. The relationship between social media use and innovativeness (H3) was significantly mediated by open innovation capabilities ( $b = 0.321; p < .001$ ). Knowledge management and innovativeness were significantly mediated ( $b = 0.321; p < .001$ ) by open innovation capabilities ( $b = 0.283; p < .001$ ) (H4). Innovativeness significantly mediates between open innovation capability and competitive performance (H5).

Table 3: Summary of Direct and Indirect Relationship Tests

Parameters		t-value	p-value
SMU -> CP	0.662	12.805	< .001
KM -> CP	0.220	6.336	< .001
SMU -> OIC -> Ino	0.321	5.972	< .001
KM -> OIC -> Ino	-0.412	8.542	< .001
OIC -> Ino -> CP	0.283	3.444	< .001

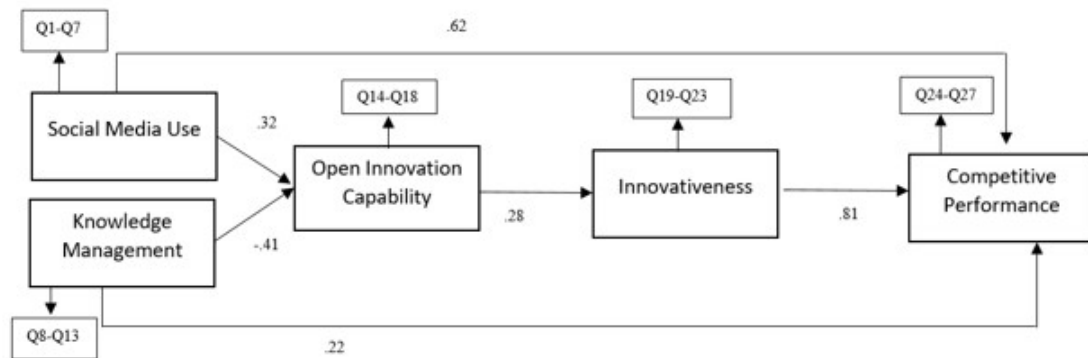


Figure 2. Structural Model

## DISCUSSION

### Theoretical Implications

Social media use de Zubieli et al. (2019) and Saura et al. (2023), knowledge management Cepeda-Carrion et al. (2023); Karamitri et al. (2020), open innovation capabilities (Kim & Choi, 2020; Valdez-Juárez & Castillo-Vergara, 2021), innovativeness, and competitive performance (Ghazwani & Alzahrani, 2024; Mikalef, Krogstie, Pappas, & Pavlou, 2020) are all examined in this study, which builds on previous research in NPSOs. According to our research, NPSOs in Iran use social media, which causes their board members to be more open to new ideas from both inside and outside the company. This helps the organisation innovate more and perform better. By connecting social media use and knowledge management to innovation ideas (innovativeness, open innovation) and competitive performance, the integrative model that was validated in the context of Iranian NPSOs adds to the body of literature on sport management. According to Ferreira et al. (2020), the results imply that knowledge management supports the claim that knowledge is a crucial organisational activity that capitalizes on all value-creating activities, including competitive performance and innovativeness. This finding is significant because background evaluations of knowledge management procedures can help close the knowledge gap regarding disregarded concepts like knowledge management and innovations in the field of sport management.

Even though there have been a few studies on knowledge management in sports organisations, there hasn't been much focus on examining how social media use and knowledge management affect innovation. The results of our study contribute to the growing body of research on innovation in NPSOs (Adamides & Karacapilidis, 2020) by demonstrating that in order to successfully manage the knowledge sources at their organisational level, they must employ knowledge management and obtain knowledge from outside sources. The importance of both internal and external knowledge to efficient knowledge management procedures that boost NPSOs' inventiveness is supported by this study (Kim & Choi, 2020; Wijaya & Suasih, 2020). Through open innovation and innovativeness in sports clubs, the model testing shown that social media use and knowledge management might predict competitive performance. Prior studies concentrated on the importance of knowledge management in providing members of sports clubs with strategic chances for candid and open communication, which aided in their growth and success (Delshab et al., 2022). Our research demonstrates how sports teams may effectively collaborate with other organisations to use social media to innovate and make the best decisions for themselves. This result also provides empirical support for earlier research (Moreau, 2021; Waheed & Zhang, 2022) that suggested sport organisations could increase their capacity for innovation by establishing a network to exchange and discuss new ideas and fostering a collaborative culture through the use of knowledge management. Thus, we draw attention to the necessity of increasing NPSOs' innovativeness and open innovation potential.

According to Borah et al. (2022), social media users should make a commitment to continuously integrating both material and immaterial resources into their capabilities. This will improve the experience and allow people to use digital technologies for relationship tasks more effectively. Such initiatives can eventually boost their revenue by enhancing the acknowledgement of social media use. Social media use should aim to approach it more methodically and strategically, going beyond experimental and informal activity patterns. They will be able to better perform

follow-up relational and commercial operations by gaining client insights based on their efforts. They will also be better able to understand how the market is evolving and what their rivals are doing. Social media users will therefore be able to set themselves apart from the competition by consistently communicating their value offer in a significant and efficient manner. They will be able to stay competitive as a result, which could also affect how well their firm performs.

This finding builds on earlier research in the nonprofit sports context by showing that clubs must use social media and knowledge management as important processes to access new expertise, knowledge, and experience in order to promote newness and create streams of innovation (Corthouts et al., 2023; Delshab et al., 2022). Additionally, our research provided empirical support for Subagja et al. (2022) recommendation to investigate the potential relationship between innovation and performance in NPSOs. Lastly, this study supports findings from earlier research (Ghazwani & Alzahrani, 2024; Sun & Liu, 2023) by verifying the direct positive impact of social media use and knowledge management on NPSO competitive performance. It also offers evidence linking the relationship between competitive performance and social media use and knowledge management.

### **Practical Implications**

Sports clubs must create a more supportive organisational culture where members are encouraged to share their knowledge and learn from one another in order to reap the benefits of social media use and knowledge management. Additionally, staff members need to exchange expertise that can help solve problems. Sports clubs must therefore honor and reward their knowledgeable employees. Job promotions and recognition (such as free memberships or prizes) may inspire employees to use innovative ideas. In their actions and statements, NPSO leadership must stress the value of social media use and knowledge management (Cepeda-Carrion et al., 2023). The current study suggests that in order to improve, NPSOs must focus on their intangible assets, such as knowledge management, innovation, and social media use. Therefore, it is advised that they gain from creating, preserving, and disseminating fresh information regarding members, services, initiatives, and policies. This would help Iranian nonprofit sports clubs, in particular, better understand the needs and expectations of their members, particularly when those members stop participating in sports because of the clubs' repeated services, the absence of activities that interest them, or the superior service provided by rivals.

Ineffective communication with rivals or partners may make it difficult for nonprofit sports organisations to share new ideas. Clubs must thus benefit from knowledge management and social media use, such as enabling the generation and dissemination of new information via many channels of communication. Clubs must also participate in knowledge management in order to create new knowledge both internally and outside with their partners (coupled innovation). By doing this, people can improve their capacity to generate and incorporate new information, which may contribute to their inventiveness. The special advantages that sports clubs have when collaborating with other clubs to provide sport must be understood by board members. Notably, NPSOs must hire seasoned management and coaches with the necessary expertise to innovate, as well as look for other knowledge sources from their sport discipline and wider network. In order to promote their knowledge management, social media use, and innovation, sports clubs are advised to collaborate with universities, sponsors, charitable organisations, sports federations, and other sports clubs.

Club management can take into account members' attitudes towards innovation or match innovation processes with values and beliefs that they believe are important (Valdez-Juárez & Castillo-Vergara, 2021). Therefore, by fostering an innovation culture and encouraging each member's zeal, inventiveness, and feeling of initiative, NPSOs must be able to cultivate members' attitudes towards innovation. Therefore, encouraging members to apply and create knowledge, providing training, and building sufficient infrastructures for knowledge sharing can all help members' attitudes match the innovative goals of NPSOs. Practically, sport managers need to be aware that staff members or volunteers might not be inclined to know. Therefore, encouraging board members to apply different types of knowledge within sports clubs could lead to further improvements in their organisational performance. This could be achieved by putting in place systems or platforms for communicating the advantages of social media use, knowledge management, and innovation.

### **Limitations and Future Research Directions**

Our study was limited by the fact that each sports club was only allowed to have one responder who completed the survey on their behalf. Clubs may have asked people who support or are in favor of innovation to fill out the survey, even though we requested that each respondent have the ability to make decisions and be informed about how the club operates. Their answers may not have accurately represented their club's viewpoint as a result. There are many different political and sporting systems in Eastern Europe and the US, but generally speaking, sports teams have a great deal of control over how they are run, even though they must follow national rules and regulations. However, excessive political authorities' involvement in sports club management might negatively impact the use of new knowledge and knowledge management in developing nations like Iran. This could be the cause of the small number of sports clubs offering a range of sports, the dearth of opportunities for administrators to receive training to raise their level of proficiency, and the lack of money and investment from the voluntary sector in sports. It is recommended that studies employing the same research design be carried out in other nations to improve its external validity, given the disparities in Iranian sport systems and traditions. The nature of NPSOs may make it challenging to extrapolate our findings to other sports service organisations, such as professional football teams. Larger sports organisations and various sports club setups may use different learning strategies. Richer data would be obtained from future research comparing the mediating roles of innovation concepts in the relationship between knowledge management, social media use and competitive performance.

A cross-sectional strategy was used in this study, and a questionnaire was given to a sample of nonprofit sports clubs at a specific time in order to collect data. We advise employing a longitudinal research design in future studies to more clearly demonstrate causation, since knowledge management and social media use can foster innovation over time and performance outcomes may become apparent over time. The study's broad conceptualization of innovation was another drawback. The question of whether radical and incremental changes have differing effects on performance could be the subject of future studies. Additionally, different sports clubs may adopt innovation differently due to their various social and cultural settings. Thus, when implementing knowledge management and social media use in sports clubs to guide members' attitudes towards innovation, it is advised to take into account interclub differences and examine innovation kinds and their particular impact. Additionally, researchers could look into how sports organisations view the training methods used by their governing bodies to promote and create training plans and best practices for their member clubs. Future studies might also look at how NPSOs manage their knowledge and use of social media and make better use of the new information and assistance they receive from their associations. Therefore, it makes sense for NPSO research in the future to take into account further thorough models of competitive performance, like the competing values framework.

### **CONCLUSION**

This study presents concrete evidence that, through open innovation and inventiveness, social media use and knowledge management enhance nonprofit sports teams' competitive competitiveness. By highlighting the critical role that information management plays in sports clubs' innovativeness, the current paper adds to the body of research on nonprofits and innovation. As a result, we advise sports teams to make the most of social media use, knowledge management, and innovation. It would provide them the chance to collaborate better with other sports organisations to innovate and to exchange and utilize new knowledge. They are able to perform better because of this application of information.

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