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The Development of UMClubLearn Website as an Income Generation and Entrepreneurship Ecosystem for Faculty of Sport Science

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ABSTRACT

Background: Sports coaching education faces challenges in producing graduates who are competent in soft skills and entrepreneurship. Graduates are expected to compete in a highly competitive job market.

Purpose: This study aims to develop the UMClubLearn website as a learning center for students and the general public to enhance soft skills, entrepreneurial knowledge, and certification in sports. **Methods:** The research method used is research and development (R&D) with the ADDIE model. The study sample involved 337 undergraduate students from the Department of Coaching Education at Universitas Negeri Malang. The data were collected through questionnaires consisting of needs analysis, expert validation of the material, and product trials. **Conclusion:** The analysis results showed that the UMClubLearn website achieved a very high level of validity, with an average score of 92% from material experts and 83% from media experts. Small and large group product trials also showed scores of 81% and 83%, respectively, indicating that the website is user-friendly and functional. The conclusion of this research is that the development of the UMClubLearn website fits the students' needs in soft skills and entrepreneurship development and has the potential to be a comprehensive solution in coaching education. Through this platform, it is expected that a new generation of competent sports coaches and entrepreneurs will emerge, ready to face challenges in the industrial field.

Implications: The practical implications include enhancing accessibility to quality education and training, while theoretical implications suggest the integration of technology in sports education can bridge existing gaps in traditional training methods.

Keywords : UMClubLearn; soft skills development; sports entrepreneurship

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INTRODUCTION

The coaching education program aims to produce graduates who are skilled in training, coaching, and sports development (Knowles et al., 2001). Graduates of this program are expected to become professional and entrepreneurial coaches, mentors, or sports developers. However, to achieve this goal, appropriate skills and knowledge are required, including soft skills such as communication, teamwork, creativity, and problem-solving. These are crucial to face challenges and competition in the sports field (Priyono, 2012). Soft skills training can increase graduates' preparedness for the professional world, with a knowledge increase of 25.44% after training (Widiawati et al., 2024). These soft skills, not only support individual career success, but also contribute to the overall advancement of the sports sector (Knowles et al., 2001; Mearns et al., 2011).

In the current era of globalization, the sports field faces various new challenges, from the increasing competition to technological developments. This condition demands the professionals in sports to possess more than just technical knowledge. Research by Carrasco & Wilfredo (2023) emphasizes that interpersonal and managerial skills are essential for managing sports teams and organizations. According to González-Serrano et al. (2021) students have high enthusiasm, motivation, and innovation in learning and pursuing entrepreneurship in sports. However, students also need guidance, facilities, and support to develop skills, knowledge in sports entrepreneurship, and sports certification. It highlights that formal education alone is insufficient to prepare them for a competitive world. Research by González-Serrano et al. (2021) shows that students with access to mentors and comprehensive training programs are more likely to succeed in their careers. Furthermore, the importance of certification in sports cannot be ignored. Certification provides formal recognition of a person's competence in a specific area, which is highly valuable for professionals in the sports industry. With certification, graduates are not only equipped with theoretical knowledge but are also officially recognized by the industry as competent individuals.

Although much research emphasizes the need for developing soft skills and entrepreneurship in sports education, the approach often remains limited to conventional training methods that underutilize digital technology. This is further supported by research conducted by (Fanaqi et al., 2023; Ihsan et al., 2020; Indroasyoko et al., 2023; Widiawati et al., 2024) which highlights the importance of soft skills, entrepreneurship, and certification in sports through training or workshops. Still, there is a gap in research that specifically explores the effectiveness of technology integration in the form of a website as a dedicated platform to enhance the abilities of sports coaching students and the general public in learning soft skills, entrepreneurship, and certification in sports. Research by Günüş & Kuzu (2014) indicates that technology-based learning can improve students' engagement and learning outcomes, yet technology adoption in sports coaching education remains minimal, resulting in a gap in learning effectiveness faced by current students.

From this problem analysis, the development of the UMClubLearn Website as a center for learning soft skills, certification, and sports entrepreneurship is highly needed. This website is designed to provide the services and resources that the students need to develop soft skills and knowledge related to sports certification and entrepreneurship. By involving experts in sports business, UMClubLearn is expected to provide a more profound and practical learning experience not obtained through conventional lecture processes. Additionally, UMClubLearn has the potential to reach the wider community needing guidance in mastering soft skills, sports certification, and sports entrepreneurship. Research by Carrasco & Wilfredo (2023) underlines the importance of accessibility to quality education and training in increasing public participation in sports activities. In this context, UMClubLearn can function as an ecosystem that supports

entrepreneurship and soft skills development in the sports field, making it a comprehensive solution to the challenges faced by students and the general public.

To achieve these goals, it is essential for UMClubLearn to integrate technology into its learning process. By utilizing a digital website, students and the public can access various resources, such as training modules, tutorial videos, and consultation sessions with experts. This solution, not only enhances accessibility, but also allows for flexible learning that fits individual needs. Previous studies have explored the effectiveness of websites in improving student learning, particularly in sports education (Papastergiou, 2011). Integrating gamification elements into educational websites can enhance student performance and learning outcomes (Pradana et al., 2018). Research by Permana et al. (2015) shows that using a website alongside specific teaching models can significantly increase students' conceptual understanding compared to traditional methods. Another example of the successful use of websites in sports education can be seen in programs implemented in developed countries. Various universities in Australia have adopted the blended learning approaches that combine online and face-to-face learning. This has proven effective in improving student skills, allowing them to learn more interactively and collaboratively (Inoue, 2010). Thus, the presence of UMClubLearn is expected to meet urgent needs in sports coaching education. By focusing on soft skills, certification, and entrepreneurship, this website, not only serves as a place of learning, but also as a collaborative space for students, professionals, and sports enthusiasts. Through this approach, it is expected that a new generation of coaches and sports developers will emerge, who are not only technically competent, but also prepared to face the various challenges of the evolving sports world.

METHODS

Research and development (R&D) is the type of research used. The result of this research and development is the UMClubLearn website, which can be utilized by students of the Faculty of Sport Sciences or the general public who expect to develop their ability in soft skills, entrepreneurship, and sports certification, under the direct guidance of mentors specializing in these fields. The development model used in this research is the Analysis, Design, Development, Implementation, and Evaluation (ADDIE) model (Branch, 2009). The process of developing the UMClubLearn product is illustrated in Figure 1 below.

Populations and Samples

The population in this study involves undergraduate students from the Department of Coaching Education at Universitas Negeri Malang. The sample consists of 337 students. The sampling technique used in this study is purposive sampling.

Data Collection Technique

The instrument used in the data collection process for this research and development includes questionnaires comprising: 1) a needs analysis questionnaire, 2) a material expert validation questionnaire, 3) a media expert validation questionnaire, and 4) a product trial questionnaire.

Data Analysis

The data analysis technique utilized in this research consists of qualitative descriptive analysis and quantitative descriptive analysis in the form of percentages. The qualitative descriptive technique follows three methods proposed by Bogdan and Biklen (2007): a natural setting, a descriptive nature of qualitative research, and inductive data analysis in qualitative

research. The quantitative descriptive analysis is in percentage form, which is used to present the results of the questionnaire responses provided to students as respondents, material experts, and media experts using a Likert scale. The following is the formula used for processing questionnaire data in needs analysis, validation testing by experts, and product testing.

$$V = \frac{\text{Score Result}}{\text{Max Score}} \times 100\%$$

Description:

V : Validity

Score Result : Validator total score

Max Score : Expected maximum total score

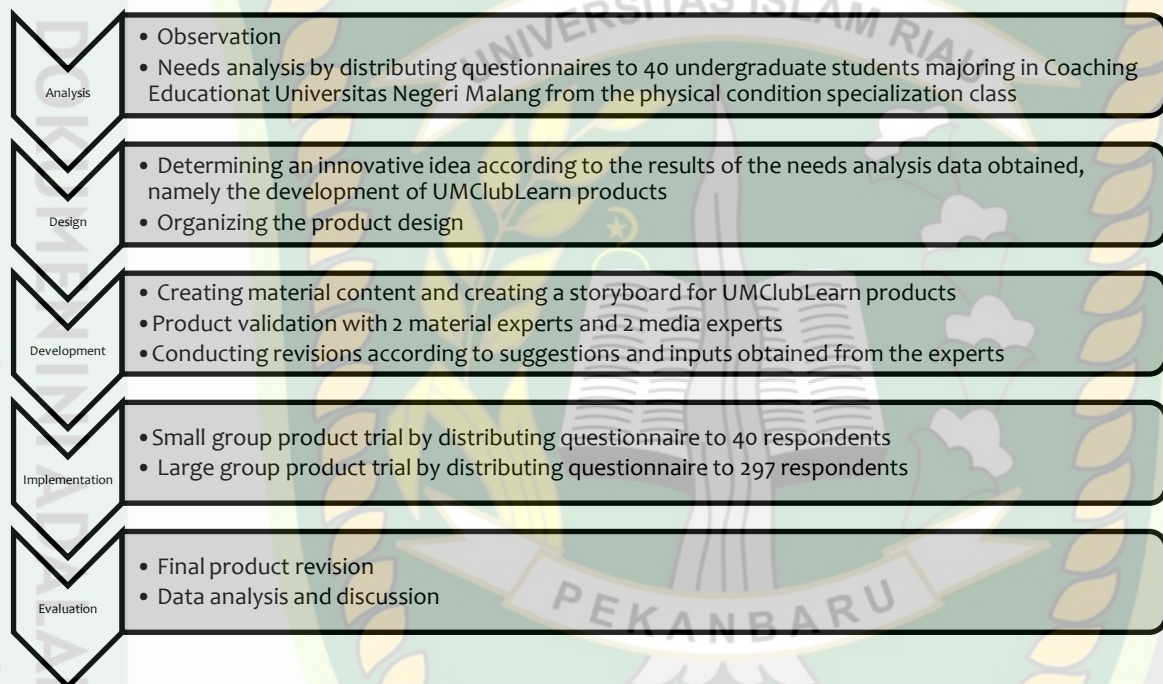


Figure 1. Research Flow

To simplify the conclusions making regarding the percentage analysis of product development feasibility, the following classification criteria have been established:

Table 1. Percentage Analysis Criteria Standard

Percentage	Category	Description
80,01 % - 100 %	Highly Valid	Can be used without revision
60,01 % - 80 %	Valid	Can be used with minor revision
40,01% - 60 %	Valid Enough	Recommended not to use
20,01% - 45%	Less Valid	Cannot be used
01,00 % - 20 %	Invalid	Cannot be used

Source: (Akbar & Sriwijaya, 2013)

RESULTS

Results of Students' Needs Analysis

Based on the needs analysis data collected through questionnaires filled out by 40 undergraduate students from the Department of Coaching Education at Universitas Negeri Malang specializing in physical conditioning, the results are presented in Table 2 below.

Table 2. Students' Needs Analysis Results Data

No.	Statements	1 (%)	2 (%)	3 (%)	4 (%)
1	Respondents feel the need to develop soft skills (communication, teamwork, creativity) to succeed in the field of sports.	10.00	15.00	30.00	45.00
2	Respondents believe that knowledge of entrepreneurship is essential for their careers in sports.	5.00	15.00	25.00	55.00
3	The current study program is adequate to prepare respondents for the professional world.	15.00	30.00	25.00	30.00
4	Respondents feel that the available learning facilities on campus sufficiently support skill development.	12.50	17.50	37.50	32.50
5	Respondents need access to experienced mentors in the sports field.	12.50	20.00	37.50	30.00
6	The training programs offered by the university are comprehensive enough to meet respondents' needs.	7.50	20.00	27.50	45.00
7	Certification in sports is essential to enhance respondents' competitiveness in the job market.	7.50	12.50	25.00	55.00
8	Respondents are interested in pursuing certification programs relevant to sports.	5.00	10.00	30.00	55.00
9	Respondents believe that a digital platform can improve learning accessibility.	2.50	7.50	25.00	65.00
10	Learning through video tutorials and online modules would greatly assist respondents in understanding the material.	5.00	12.50	35.00	47.50
11	Respondents are interested in starting a business in sports.	7.50	15.00	27.50	50.00
12	Respondents feel they need more information and guidance on sports entrepreneurship.	10.00	12.50	30.00	47.50
13	Respondents want to engage in a community that supports professional development in sports.	5.00	7.50	27.50	60.00
14	A platform like UMClubLearn can help respondents connect with relevant professions.	7.50	10.00	20.00	62.50

Based on the analysis presented in Table 2, it can be concluded that there is a significant need among students to improve soft skills, entrepreneurial knowledge, and access to training and certification in the field of sports. The development of the UMClubLearn website is highly anticipated to meet these needs and contribute positively to student development in sports.

Results of Material Experts Analysis

Based on the data analysis conducted by 2 material experts, the results are presented in Table 3 below.

Table 3. Material Expert Test Result Data (n=2)

Variable	Min Score	Max Score	Score Result	Percentage	Category
Relevance/Appropriateness	10	40	36	90%	Highly Valid
Content Quality	10	40	37	93%	Highly Valid
Ease of Use	10	40	37	93%	Highly Valid
Clarity	10	40	38	95%	Highly Valid
Average	10,00	40,00	37	92%	Highly Valid

Based on Table 3, the average score is 37 out of a maximum score of 40, resulting in 92%. Based on the results obtained from the validation by the 2 material experts, it can be concluded that the product falls into the "highly valid" category. Thus, the product can proceed to the media expert testing phase.

Results of Media Experts Analysis

Based on the data analysis conducted by 2 media experts, the results are presented in Table 4 below.

Table 4. Media Expert Test Result Data (n=2)

Variable	Min Score	Max Score	Score Result	Percentage	Category
Ease of Use	14	56	48	86%	Highly Valid
Clarity	10	40	33	83%	Highly Valid
Interactivity	10	40	32	80%	Valid
Average	11,33	45,33	37,7	83%	Highly Valid

Based on Table 4, the average score is 37.7 out of a maximum score of 45.33, resulting in 83%. Based on the results obtained from the validation by the 2 media experts, it can be concluded that the product falls into the "highly valid" category. Therefore, the product can proceed to the small group product trial phase.

Results of Small Group Product Trial Analysis

Based on the data analysis conducted in the small group product trial, the results are presented in Table 5 below:

Table 5. Small Group Product Trial Result Data (n=40)

Variable	Min Score	Max Score	Score Result	Percentage	Category
Ease of Use	280	1120	940	84%	Highly Valid
Clarity	240	960	800	83%	Highly Valid
Functionality	200	800	600	75%	Valid
Appropriateness	200	800	620	78%	Valid
Average	230	920	740	81%	Highly Valid

Based on Table 5, the average score is 740 out of a maximum score of 920, resulting in 81%. Based on the results obtained from the small group trial, it can be concluded that the product falls into the "highly valid" category. Thus, the product can proceed to the large group product trial phase.

Results of Large Group Product Trial Analysis

Based on the data analysis conducted in the large group product trial, the results are presented in Table 6 below.

Table 6. Large Group Product Trial Result Data (n=297)

Variable	Min Score	Max Score	Score Result	Percentage	Category
Ease of Use	2079	8316	8000	96%	Highly Valid
Clarity	1782	7128	5800	81%	Highly Valid
Functionality	1485	5940	4200	71%	Valid
Appropriateness	1485	5940	4800	81%	Highly Valid
Average	1708	6831	5700	83%	Highly Valid

Based on Table 6, the average score is 5700 out of a maximum score of 6831, resulting in 83%. Based on the results obtained from the large group trial, it can be concluded that the final product, the UMClubLearn website, falls into the "highly valid" category.

DISCUSSION

The development of the UMClubLearn website as a learning platform to enhance soft skills, entrepreneurship, and certification in the field of sports represents a strategic step aligned with student needs in the modern era. In the context of an ever-evolving education landscape, it is crucial for institutions to adapt to the demands of an increasingly competitive job market (Chatterton & Goddard, 2000; Pucciarelli & Kaplan, 2016). The needs analysis results show that

the majority of respondents (55%) believe that entrepreneurship knowledge is crucial for their careers in sports. This finding aligns with research by (Priyono (2012), who states that entrepreneurship not only enhances individual capabilities but also contributes to the overall development of the sports industry. Other research by Pardo-Garcia & Barac (2020) also found that a solid understanding of entrepreneurship can improve graduates' competitiveness in the job market, underscoring the importance of integrating entrepreneurship into sports education curricula. Entrepreneurship in sports allows individuals to create new opportunities in product development, services, and sports events. In the digital age, the ability to innovate and adapt to market changes is essential. Research by Asabere (2013) indicates that graduates with entrepreneurial skills are better equipped to innovate and compete in a dynamic job market. Therefore, UMClubLearn has the potential to serve as a catalyst in preparing students to enter the world of sports entrepreneurship.

Additionally, 45% of respondents feel the need to develop soft skills such as communication and teamwork. Carrasco & Wilfredo (2023) highlight the importance of interpersonal skills in managing sports teams and organizations, emphasizing that soft skills are crucial to enhancing competitiveness in the job market. Research by Singh (2018) also found that mastery of soft skills significantly contributes to individual success in dynamic work environments. This shows that UMClubLearn can serve as a solution to overcome the shortcomings in formal education, which often does not properly prepare students for real-world challenges in the workplace. Formal education often focuses on technical aspects, while soft skills, which are essential for effective team collaboration, are frequently abandoned (Sinthiya & Rachman, 2022).

The use of technology in education, as adopted by UMClubLearn, has proven effective in enhancing student's engagement and understanding. A study by Inoue (2010) showed that a blended learning approach, the combination of online and face-to-face learning, successfully improved students' skills in sports education. Research by Akintayo et al. (2024) also found that the use of technology in learning can boost student's motivation and learning outcomes, particularly in disciplines that require practical skills. Integrating technology, not only increases accessibility, but also creates a more interactive and collaborative learning environment. Through various media, such as video tutorials and interactive modules, students can learn in a more engaging and enjoyable way (Anderson, 2008).

Furthermore, the product trial results indicate that UMClubLearn received a high validity score, with an average score of 83% in the large group trial. It implies that the UMClubLearn website meets the user's expectations and is ready for broader implementation. Research by Mearns et al. (2011) states that an effective educational website must accommodate diverse learning needs, and UMClubLearn has shown progress in this regard. Additionally, research by Kokoç (2019) found that websites providing flexible access to learning materials can increase student's satisfaction and motivation. By offering various resources accessible anytime and anywhere, this website supports students in learning according to their own pace and style (Alqurashi, 2018).

With UMClubLearn, it is expected that students not only gain theoretical knowledge, but also practical experience essential for building their careers in sports. This aligns with the views of González-Serrano et al. (2021), who emphasize the importance of mentors and comprehensive training programs in enhancing students' chances of success in the job market. Research by Waller et al. (2021) also found that practical experience gained through certification programs can boost students' confidence and prepare them for challenges in the industry. Through certification programs and guidance from experts, students can acquire industry-recognized skills, thus enhancing their competitiveness in the job market (Fleming et al., 2008). Apart from only providing information, UMClubLearn functions as an ecosystem that supports student self-development. With a community feature that enables interaction among students, mentors, and

sports professionals, this website creates a space for sharing experiences, knowledge, and networks that can benefit their careers. Research by Ventola (2014) shows that a strong learning community can enhance student's motivation and engagement, leading to deeper learning. Additionally, a study by Mishra (2020) found that interaction within a learning community can strengthen a sense of belonging and social support, which is vital for academic and professional success. Therefore, UMClubLearn not only serves as an information source, but also as a platform that fosters connections and collaborations essential for students' career development in sports (Anderson, 2008).

Overall, the development of UMClubLearn has great potential to create an entrepreneurial ecosystem that supports students and the general public in developing soft skills and entrepreneurship knowledge in sports. This will not only improve individual competencies, but also contribute positively to the sports sector as a whole. Research by González-Serrano et al. (2021) shows that integrating entrepreneurship programs into education can enhance students' job readiness and strengthen innovation within the industry. By preparing a new generation of coaches and sports developers who are not only technically competent, but also possess managerial and entrepreneurial skills, UMClubLearn contributes to the sustainable growth of the sports sector. Additionally, UMClubLearn can serve as a model for educational platform development in other fields. Research by Fleming et al. (2008) emphasizes that an approach based on actual student and industry needs can enhance the relevance and effectiveness of educational programs. Research by Wahid et al. (2015) also shows that integrating technology in education can strengthen students' entrepreneurial skills, which are critical in facing industry challenges. With a needs-based approach focused on real student and industry needs, this website can serve as an example for other institutions in designing relevant and effective programs. Through collaboration among academics, industry professionals, and students, UMClubLearn can continue to adapt and evolve in response to changes in society. Thus, the existence of UMClubLearn is not only as a learning platform, but also as an innovation in sports education aimed at developing quality human resources. In facing the challenges of globalization and technological advancements, this website can help students to survive and excel in an increasingly competitive job market (Kumar et al., 2024; Waller et al., 2021).

CONCLUSION

The development of the UMClubLearn website as a learning center to enhance soft skills, entrepreneurship, and certification in the field of sports demonstrates significant potential in meeting student needs. Data analysis results show that the majority of respondents recognize the importance of developing soft skills, with 45% acknowledging the essential role of communication and teamwork skills in their sports careers. Additionally, 55% of respondents believe that knowledge of entrepreneurship is vital in enhancing their competitiveness in the job market. The expert material validation conducted by two experts indicates that the UMClubLearn product possesses high validity, with an average score of 92%. This shows that the content and relevance of the materials provided on this website are both highly relevant and of excellent quality. Moreover, media expert validation resulted in an average score of 83%, indicating that the design and interactivity of the website meet the necessary criteria to support an effective learning experience.

Results from the small group product trial also show high validity, with an average score of 81%, indicating that users find this website is easy to use and functional. The large group product trial revealed that UMClubLearn received a highly valid assessment, with an average score of 83%. This signifies that the UMClubLearn website is ready for broad implementation and can serve as a solution to overcome the gaps in formal education, which often does not properly

prepare students for real-world challenges in the workplace. Overall, the development of UMClubLearn can contribute in fostering a new generation of sports coaches and developers who are not only technically competent, but also prepared to face the evolving challenges within the sports industry. Through this approach, UMClubLearn is expected to serve as a catalyst in preparing students to enter the world of sports entrepreneurship and increase their contribution to the sports sector as a whole.

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CONFLICT OF INTEREST

The authors declare no conflict of interest that may affect the representation or interpretation of the results of this study. All data and information presented in this article are the results of research conducted independently and without influence from any party.

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ISLAM RIAU

Students' Perception of 4Ps Marketing Strategies on Sports Product Purchases in Malaysia

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ABSTRACT

Background: The rapid growth of e-commerce has transformed the retail landscape, especially among younger consumers who increasingly shop online. However, this environment may yield different results compared to traditional brick-and-mortar settings. **Purpose:** This study aims to investigate the students' perception of 4Ps Marketing Strategies on Sports Product Purchases in Malaysia. **Results:** Data analysis using SPSS version 28 revealed significant positive correlations between all four elements of the marketing mix and purchase decisions: place ($r = 0.624$, $p < 0.05$), promotion ($r = 0.523$, $p < 0.05$), price ($r = 0.488$, $p < 0.05$), and product ($r = 0.311$, $p = 0.05$). Multiple regression analysis showed a strong correlation between the predictors and purchase decisions, with an R^2 value of 0.497, explaining 49.7% of the variance. The regression equation predicted purchase decisions as: $y = 0.624 + 0.001(\text{product}) + 0.311(\text{price}) + 0.087(\text{promotion}) + 0.428(\text{place})$. **Conclusion:** These findings indicate that the online platform's convenience, based on the 4 Ps, significantly impacts students' purchasing decisions. **Implications:** The study suggests that online retailers should focus on enhancing platform accessibility and user experience while investing in effective promotional and pricing strategies to drive sales and generate revenue in the local market.

Keywords : 4P's, Sports Products, Purchasing Decision, Sports Students, Online Retail.

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INTRODUCTION

The concept of the marketing mix has its roots in microeconomic theory, which initially focused on the single element of price. In 1964, McCarthy expanded this concept into the "4 Ps"—product, place, price, and promotion—creating a practical framework for implementing marketing strategies. Rather than being a scientific theory, the marketing mix serves as a conceptual tool that helps managers make key decisions to align their products with consumer needs. This framework is often compared to baking a cake, where the baker adjusts ingredient ratios to achieve the desired outcome. Similarly, marketers adjust the elements of the mix to

tailor strategies for different products and target audiences (Thabit et al., 2018). Since its introduction, the marketing mix management paradigm has become a dominant force in marketing, profoundly shaping academic discourse, guiding research efforts, and informing practical applications. It remains a foundational tool for creating differentiation and competitive advantage in the marketplace.

In 2023, the global online retail market was valued at approximately \$5.7 trillion, with sports retail representing a significant and growing segment (Statista, 2023). As consumer behavior continues to evolve due to digitalization, understanding the dynamics of the 4 Ps—Product, Price, Promotion, and Place—has become increasingly crucial for retailers seeking to capture and retain market share in the competitive sports retail sector. While the traditional 4 Ps framework has effectively influenced consumer decisions, its application in online sports retail demands a nuanced understanding of how these elements function in a digital context. According to Saeed et al. (2021), the product mix in sports retail must accommodate a diverse range of consumer preferences, from casual fitness enthusiasts to professional athletes, requiring a broader and more adaptable product strategy. Furthermore, Jiang and Rosenbloom (2022) suggest that pricing strategies in online sports retail should incorporate dynamic pricing models that adjust according to demand and competitor actions to remain competitive and attract price-sensitive consumers.

Promotional strategies in the sports retail sector are increasingly driven by digital platforms, with social media and influencer marketing playing pivotal roles in shaping consumer perceptions and boosting sales (Chetioui et al., 2020). Le and Ratten (2021) argue that the concept of "place," traditionally understood as a physical location, now includes the entire online user experience, encompassing everything from website design to delivery logistics. This shift highlights the need for sports retailers to optimize their online presence to meet consumer expectations and enhance overall customer satisfaction. The reality of the 4Ps in sports retail demonstrates that while these fundamental marketing principles remain relevant, their application must be continuously adapted to align with the fast-paced, technology-driven landscape of online retail. The ability of sports retailers to effectively integrate these elements into their marketing strategies can significantly influence consumer behavior, driving both purchase decisions and brand loyalty in an increasingly competitive market.

Students often spend excessive amounts of money and time due to a lack of understanding of the 4 Ps principle in online purchasing. Without a solid grasp of how 'Product,' 'Price,' 'Place,' and 'Promotion' influence their shopping decisions, students may face issues such as overspending or inefficient time management. For example, a poor understanding of 'Price' might lead students to miss out on discounts or promotions, resulting in higher costs (Smith & Anderson, 2021). Similarly, a lack of awareness about 'Place' can cause students to overlook more convenient or cost-effective online retailers (Miller & Thompson, 2020). Misunderstanding 'Product' could result in purchasing items that do not meet their needs or are of poor quality, while ineffective use of 'Promotion' might prevent them from taking advantage of special offers or deals (Johnson, 2019; Taylor & Evans, 2022). By effectively applying the 4 Ps to their online purchasing decisions, students could better manage their budgets and save time.

LITERATURE REVIEW

The Significance of Marketing

In today's landscape, marketing's significance extends beyond traditional sales and advertising, focusing on innovative ways to fulfill customer needs. Modern strategies increasingly prioritize understanding and addressing customer needs rather than just driving sales (Kumar and Shah, 2023). The emphasis on creating value that aligns with customer

expectations further supports this shift (Lee and Lee, 2022). Additionally, marketing practices are evolving to meet customer needs better, moving away from conventional sales methods (Nguyen and Simkin, 2021). Digital advancements play a crucial role in driving this innovation (Choi and Kim, 2020) while stressing the importance of prioritizing innovation and customer needs in contemporary marketing practices (Harris and Rae, 2019).

Seen as essential to company performance, marketing bridges the gap between customer needs and available services or products. Today's research emphasizes understanding customer desires, producing desired products, competitive marketing, and facilitating accessibility. This involves planning and executing product/service design, distribution, promotion, pricing, and creating customer-oriented markets (Baker, 2012). Drucker (2008) asserts the pivotal role of marketing in business success, particularly for small and medium-sized apparel businesses, highlighting that without marketing, products—especially from smaller companies—would remain unfamiliar.

Students Perception Based on the Hierarchy of Effects Model

The Hierarchy of Effects model is a foundational framework in advertising and marketing. It details a consumer's steps, from initial awareness of a product to the final purchase decision. Introduced by Robert J. Lavidge and Gary A. Steiner in 1961, this model emphasizes the importance of structured marketing efforts to guide potential customers through a sequential process. Understanding these stages helps marketers craft strategies that effectively influence consumer behavior.

The first stage in the Hierarchy of Effects model is awareness. At this point, the primary goal of marketing efforts is to make potential consumers aware of the product or brand. This initial step is crucial because, without awareness, there is no possibility of progressing to subsequent stages. Effective advertising campaigns, social media presence, and public relations efforts are essential for high visibility. As Lavidge and Steiner (1961) noted, creating awareness is foundational in building a consumer base. Likewise, Stocchi et al. (2020) highlight that brand awareness is critical for new market entrants, as it significantly influences the effectiveness of subsequent marketing efforts and consumer decision-making processes.

Once awareness is established, the next stage is knowledge. Here, consumers seek to learn more about the product. This stage provides detailed information about the product's features, benefits, and usage. Knowledge can be disseminated through various channels, such as product descriptions, reviews, tutorials, and educational content. According to Barry (1987), consumers must gain sufficient knowledge to make informed decisions about the product. Moreover, the decision quality of purchasing the product is greater when consumers have in-depth knowledge about the product. (Swaminathan, 2003).

Following knowledge acquisition, the consumer moves to the liking stage. At this point, the consumer develops a favorable attitude towards the product. Positive experiences, endorsements, and engaging content can significantly influence this stage. Effective marketing at this level involves creating positive emotional connections and highlighting the product's advantages. Lavidge and Steiner (1961) emphasized that fostering a favorable attitude is crucial for progressing to the following stages.

The fourth stage is the preference, where consumers start to favor one product over competing alternatives. The perceived value and benefits of the product often influence this preference. Marketers aim to differentiate their products by emphasizing unique selling propositions and superior features. As Barry (1987) explained, creating a preference involves convincing consumers that the product is the best option, a key step in the decision-making process.

After developing a preference, the consumer enters the conviction stage. Here, the consumer firmly believes that the product is the right choice. This stage often involves addressing doubts and reinforcing the product's benefits. Marketing efforts at this stage focus on building trust and providing reassurance. Lavidge and Steiner (1961) described conviction as the stage where the consumer becomes convinced of the product's value and is ready to make a purchase decision.

The final stage in the Hierarchy of Effects model is purchase. This is the culmination of all previous efforts, where the consumer makes the purchase decision. At this stage, ensuring that the buying process is as seamless and straightforward as possible is essential. Marketing strategies may include providing easy access to purchase points, offering incentives, and ensuring excellent customer service. Barry (1987) highlighted that facilitating the purchase process is vital for converting interest into sales. Consumer behavior experts like Courtland L. Bower and John J. Thrill (1992) argue that before consumers make a purchase, they must first be aware of the product's existence. This process involves exposure to stimuli representing the product, paying attention to these stimuli, and interpreting them to form an overall perception of the object. Perception plays a crucial role in establishing the meaning of a product or brand during initial consumer contact, known as consumer information processing in marketing.

In the realm of marketing, the perception process encompasses four distinct stages: sensation, attention, interpretation, and retention. Buyers' decision-making involves considering multiple alternatives and satisfying their needs through product knowledge integration, pricing, promotion, and availability, as emphasized by Kotler (2008) and Nugroho Setiadi (2008). In essence, the purchasing decision reflects a customer's determination to select among available alternatives that meet their needs (Kotler & Keller, 2009). This decision-making process is influenced by the marketing mix—product price, placement, and promotional strategies—ultimately shaping the consumer's choice.

Kotler and Keller (2012) outline five stages in consumer purchase decision-making: problem recognition, information search, evaluation of alternatives, actual purchase decision, and post-purchase evaluation. These stages involve recognizing the need, seeking information, evaluating it, deciding to purchase, and finally assessing product satisfaction. Ultimately, consumers seek establishments offering products that align with their preferences and shops where they feel comfortable and receive satisfactory services. Kartajaya (2007) concludes that when consumers find products meeting their criteria after evaluating product information, they are more likely to make higher levels of purchase decisions.

4Ps Marketing Mix

The concept of the marketing mix originates from the single P (price) in microeconomic theory (Chong, 2003). McCarthy (1964) expanded this into the “marketing mix,” commonly known as the “4Ps”, to translate marketing planning into actionable practice (Bennett, 1997). Although the marketing mix is not a scientific theory, it serves as a conceptual framework highlighting the key decisions managers make to tailor their offerings to consumer needs. This framework aids in developing both long-term strategies and short-term tactical programs (Palmer, 2004). The marketing mix is defined as a set of controllable marketing tools that a company uses to elicit a desired response from its target market. These tools, typically called the 4Ps of Marketing—Product, Price, Promotion, and Place are controllable variables marketers use to achieve specific consumer engagement or revenue targets in the desired market (Riaz, 2011).

According to Kotler (2012), the mix includes Product, Price, Place, Promotion, People, Physical Evidence, and Process. In this study, the marketing mix refers specifically to the 4Ps of first-line marketing strategies: Product, Price, Place, and Promotion. Jonathan Ivy (2008) describes the marketing mix as a set of controllable marketing tools that influence demand and

can increase it. The term "mix" implies that the four Ps (Product, Price, Promotion, Place) should be systematically coordinated to persuade customers effectively.

In other words, offering the right product at an affordable price, complemented by efficient distribution and appropriate communication techniques, can collectively influence customer perceptions (Rad & Akbari, 2014). The marketing mix involves different marketing decision variables that firms use to market their goods and services. After identifying and gathering fundamental information about the market, the next step is market programming, which involves deciding on the instruments and strategies to meet customer needs and address competitive challenges. This approach provides an optimal combination of all marketing elements, enabling companies to achieve profit, sales volume, market share, and return on investment goals. The marketing mix is grouped under four primary elements: Product, Price, Place, and Promotion (Singh, 2012).

Margarita Išoraitė (2016) emphasizes the positive impact of the marketing mix in meeting consumer needs and achieving the company's marketing goals. The main findings in Goi, C.L., (2009) include the influential nature of the 4Ps marketing mix, criticisms of its production-oriented nature, proposals to extend the marketing mix with a fifth P, emphasis on customer orientation in successful marketing plans, and the role of business marketing in managing relationships and networks. the importance of effectively planning and implementing all elements of the marketing mix to enhance product and service quality and increase customer satisfaction, as well as the significance of standardizing product quality, adapting strategies for global markets, making pricing decisions, and distribution and promotion strategies in driving organizational performance and success (Ivy, 2008).

The evolution of the marketing mix concept involves its progression, critiques, and attempts to widen its scope by introducing extra 'P's. This progression underscores the lasting impact of the 4Ps framework on both marketing theory and practice. Initially, the marketing mix concept centered on the 4Ps—Product, Price, Place, and Promotion—as a fundamental framework for marketers. However, criticisms arose, suggesting its oversimplification of marketing strategies and its neglect of crucial elements like people, processes, and physical evidence. Despite these expansions, the 4Ps framework remains a cornerstone in marketing. Its simplicity and adaptability continue to guide marketing strategies, while revised versions incorporating the additional 'P's provide a more holistic perspective for contemporary marketers. This enduring influence underscores the framework's relevance in shaping marketing practices and theories.

METHOD

Participants

In this research survey, the target population consisted of students from Bachelor of Sports Management who are studying at Universiti Teknologi MARA Shah Alam (UiTM). The simple random sampling method ensures each eligible student has an equal chance of selection, enhancing the reliability and generalizability of the findings (Creswell & Creswell, 2017). A random sample of 100 students participated in this study. They were selected to study the relationship between the 4Ps knowledge towards their purchase decision on the product at an online sports retailer. Therefore, getting their feedback and opinions on some issues related to the studied phenomenon makes it appropriate for the study.

Instrument

The study utilized a survey questionnaire as its primary data collection tool. Responses gathered from this instrument will be organized and analyzed according to specific themes. The

questionnaire comprised six distinct sections: the first section collected demographic information, while sections 2 through 6 drew from various scholarly works. Sections 2, 3, and 4 were adapted from Nugroho and Irena (2017), focusing respectively on product quality (6 items), price (6 items), and promotion (5 items). Sections 5 and 6 were adapted from Asdi and Putra (2020), assessing the location where products are sold (3 items) and students' purchase decisions (6 items). Sections 2, 3, 4, and 5 served as independent variables, whereas Section 6 was the dependent variable in the study.

The questionnaire items were evaluated using a 5-point Likert scale, where responses ranged from 1 to 5. Sections 2, 3, 4, and 6 were rated on a scale from never to always (1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = always). Meanwhile, section 5 used a Likert-like scale ranging from strongly disagree to strongly agree (1 = strongly disagree, 2 = disagree, 3 = slightly agree, 4 = agree, 5 = strongly agree).

Table 1: Questionnaire structure

Section	Scale
1 - Demographic Information	Nominal
2 - Quality (Nugroho and Irena 2017)	5-point Likert
3 - Price (Nugroho and Irena 2017)	5-point Likert
4 - Place (Asdi and Putra 2020)	5-point Likert
5 - Promotion (Nugroho and Irena 2017)	5-point Likert
6 - Which Assesses Students' Purchase Decision (Asdi and Putra 2020)	5-point Likert

Implementation

Data will be collected through a structured, self-administered online survey via Google Forms within 6 weeks. This methodology aligns with the research objectives of examining the effect of the 4Ps of the marketing mix on students' purchase decisions for online sports retailers. Using simple random sampling in this context enhances the study's validity and potential to generate meaningful insights applicable to the broader student population in sports management programs, particularly in understanding their online purchasing behaviors and preferences.

Following the data collection phase, the team prepared the dataset for analysis using SPSS statistical software. While the process proved challenging, the rigorous approach adopted by the researchers ensures the integrity and reliability of the data collected. This comprehensive methodology lays a solid foundation for an in-depth analysis of students' perceptions of 4PS marketing mix strategies in the local market. The collected data were then prepared for analysis using SPSS, with plans to employ various statistical methods, including descriptive statistics and Pearson correlation. Despite its challenges, this rigorous process ensured reliable data collection for a comprehensive analysis of students' perception of 4Ps marketing mix strategies towards generating revenue in the local market. The final step involves interpreting the results of these analyses.

RESULTS

Table 2 below presents the correlation between the four constructs of the marketing mix (product, price, promotion, and place) toward purchasing decisions based on online platforms. The results indicate that all four elements have positive and statistically significant correlations on purchase decisions, suggesting they all play a role in influencing customers' buying choices. There is a positive, weak, and significant relationship between product and purchasing decision ($r = 0.311$, $p < 0.05$), positive, medium and significant relationship between price and purchasing decision ($r = 0.488$, $p < 0.05$), positive, medium and significant relationship between price and

purchasing decision ($r = 0.523$, $p < 0.05$), and positive, strong and significant relationship between promotion and purchasing decision ($r = 0.624$, $p < 0.05$), indicating that the convenience and accessibility of online platforms strongly influence purchase decisions. All correlations are significant at the 0.05 level, based on a sample size of 100. These findings highlight the relative importance of each marketing mix element in shaping online purchase decisions for sports products, with the online platform itself (Place) emerging as the most influential factor.

Table 2. Pearson Correlation between the price, product, promotion, place, and students' purchase decision to buy from online sports retailers

		Purchase decision
Product	Pearson Correlation	.311**
	Sig. (2-tailed)	.002
	N	100
Price	Pearson Correlation	.488**
	Sig. (2-tailed)	<.001
	N	100
Promotion	Pearson Correlation	.523**
	Sig. (2-tailed)	<.001
	N	100
Place	Pearson Correlation	.624**
	Sig. (2-tailed)	<.001
	N	100

A multiple regression analysis was conducted, yielding insightful results. The model demonstrates a strong correlation between the predictors and purchase decisions, with an R^2 value of 0.497. It explains 49.7% of the variance in purchase decisions, as indicated by the R Square value. This analysis provides valuable insights for online sports retailers targeting students, highlighting the areas where marketing efforts may be most effective in influencing purchase behavior. The respondents predicted that purchase decisions to $y = 0.624 + 0.001(\text{product}) + 0.311(\text{price}) + 0.087(\text{promotion}) + 0.428(\text{place})$.

Table 3. Multiple Regression Analysis of Students' Perception Of 4Ps Marketing Mix Strategies Towards Purchasing Decision Of Sports Products In the Local Market

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.705 ^a	.497	.476	.40861		
a. Predictors: (Constant), Place, Price, Product, Promotion						
ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.666	4	3.916	23.457	<.001 ^b
	Residual	15.862	95	.167		
	Total	31.528	99			
a. Dependent Variable: Purchase Decisions						
b. Predictor: (Constant), Place, Price, Product, Promotion						
Coefficients ^a						

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
		B	Std. Error			
1	(Constant)	.624	.368		1.697	.093
	Product	.001	.083	.001	.007	.995
	Price	.311	.096	.299	3.226	.002
	Promotion	.087	.096	.090	.910	.365
	Place	.428	.079	.486	5.434	<.001

a. Dependent Variable: Purchase Decisions

DISCUSSION

The strongest correlation is observed with place ($r = 0.624$, $p < 0.05$), showing that the convenience and accessibility of online platforms have the most substantial impact on purchase decisions. This highlights the importance of a well-designed, user-friendly website or app in driving sales for online sports retailers. Smith and Johnson (2023) found that user experience and website design were crucial factors driving young adult online purchases. The high correlation suggests investing in a seamless, intuitive, and engaging online interface could significantly boost sales. Retailers might consider features such as virtual try-ons, 360-degree product views, or augmented reality applications to enhance the online shopping experience.

The promotion follows with a moderate positive correlation ($r = 0.523$, $p < 0.05$), implying that marketing efforts and advertising strategies significantly influence buying behavior. promotional activities are crucial in influencing purchase decisions. This could encompass various strategies, from social media marketing to influencer partnerships. Lee et al. (2022) indicated that personalized promotions were particularly effective in engaging young consumers in the sports retail sector. Online sports retailers might benefit from leveraging data analytics to create targeted promotional campaigns that resonate with student demographics.

Price also shows a weak positive correlation ($r = 0.488$, $p < 0.05$), indicating that pricing strategies are crucial in purchasing decisions. This could indicate a willingness to pay for perceived value or brand prestige. Yulistyarini et al. (2020) found that price perception significantly affects purchasing and repurchase intentions, particularly in online shopping contexts. Additionally, Ali and Bhasin (2019) emphasized that perceived price, along with perceived value, plays a critical role in consumer decisions, especially in e-commerce environments. These studies underscore how strategic pricing can influence consumer behavior and drive sales in various retail settings.

Interestingly, the Product has the weakest and positive correlation ($r = 0.311$, $p < 0.05$). This suggests that while product features and quality influence buying decisions, they may have less impact than the other factors in the online retail context for sports products. In some online sports retail scenarios, products may be perceived as relatively homogenous, with less differentiation between competitors. Thus, product features may have a less pronounced effect on purchasing decisions compared to other factors. This observation is supported by Thompson and Williams (2024), who discuss the role of product homogeneity in online retail.

CONCLUSION

In conclusion, this study highlights the crucial role of effectively balancing the 4Ps—Product, Price, Promotion, and Place—in shaping purchase decisions in online sports retail. The findings reveal that while product quality is important, the greatest impact comes from a seamless, user-

friendly online platform (Place), competitive pricing strategies (Price), and compelling promotional tactics (Promotion). For online sports retailers, this means prioritizing the enhancement of the digital shopping experience, leveraging strategic pricing, and integrating dynamic promotional efforts. A strategic alignment of these elements is essential for maximizing appeal and driving sales in today's competitive online market.

Suggestions / Improvements

The convenience of online shopping and the quality of website design were highlighted as critical factors in the study. To provide an exceptional online shopping experience, retailers should continuously invest in improving their website design and functionality. This includes ensuring the site is user-friendly, with intuitive navigation and a clean, appealing layout. Features such as high-quality images, detailed product descriptions, and customer reviews can help students make informed decisions. Implementing advanced search filters and personalized recommendations based on browsing history can enhance the shopping experience. Ensuring the website is mobile-friendly is also essential, as many students prefer smartphone shopping. Optimizing the site for fast loading times and secure payment options can reduce cart abandonment rates. Providing excellent customer service through live chat support and easy return policies can further enhance the overall experience, building trust and loyalty among students.

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Success Factors in Ethiopian Premier League Soccer Clubs in 2023/24

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ABSTRACT

Background: Soccer is one of the most globally recognized and profitable industries in the entertainment sector. Knowledge of the success factors of professional soccer is critical. However, in the literature, the identification of success factors has primarily focused on the Big Five, which is not inclusive.

Methods: This study examines the key factors that drive club performance in the Ethiopian Premier League (EPL) during the 2023/24 season, with the main goal of identifying and categorizing these factors using Explanatory Factor Analysis (EFA). Employing a quantitative, cross-sectional research design, was collected from 307 players, and systematically sampled from a population of 354 across all EPL clubs. The study was conducted in accordance with ethical guidelines was approved by the Research Ethics Review Committee of Hawassa University College of Natural and Computational Sciences Research Ethics Review Committee. A 36-item self-administered survey, developed and validated by expert panels, and piloted with 90 objective groups before use. The Kaiser-Meyer-Olkin (KMO) value of .819 and Bartlett's Test of Sphericity confirmed the appropriateness of the data for factor analysis. Principal Component Analysis (PCA) identified eight key components that influence club success, including fan engagement, financial management, leadership, and human capital. **Results:** Results show that fan support and media presence significantly impact club performance, while financial stability and strong leadership are crucial for operational success. Additionally, a club's history and culture contribute to fostering loyalty and sustained performance. Moreover, eight factors accounted for 75.76% of the variance, which is (27.17%, 14.27%, 8.67%, 7.08%, 6.08%, 4.539%, 3.97%, and 3.24). However, 23% of the variance in club success remains unexplained, suggesting that other factors are at play. **Conclusion:** In conclusion, success in the EPL is shaped by a combination of internal and external factors, including fan engagement, financial practices, leadership, and team depth.

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INTRODUCTION

Soccer is one of the most globally recognized and profitable industries in the entertainment sector (Miragaia et al., 2019), with 130,000 professional players and more than 4,400 clubs worldwide (Tomlinson, 2014). The sport's universality is underscored by FIFA's 211 member

associations, which exceeds even the number of United Nations member states (Erdoğan, Altınırnak, Şahin, & Karamaşa, 2020). Across the world, top-tier competitions and traditional home-and-away formats have become the norm, collectively driving football's financial and cultural appeal (García-Sánchez, 2007). These shared global structures highlight football's immense popularity, but they also highlight an increasingly complex web of factors that influence club success.

On an international level, soccer clubs must balance multiple objectives, ranging from sporting success to financial sustainability and fan engagement. Some clubs focus on sporting achievements, such as their final league standings and performances in knockout tournaments (Lozano Segura & Villa Caro, 2022; Pérez-González, de Carlos, & Alén, 2022). Others have emphasized social goals, including increasing fan attendance, brand usage, and overall club visibility (Jiménez, et al., 2023; Getnet, et al., 2024). These diverse priorities reflect the fact that success in soccer is multi-dimensional, with clubs striving to balance performance on the field and growth from it.

Despite soccer's global significance, much of the existing research focuses on developed countries and ignores the unique challenges faced by clubs in developing countries. In Ethiopia, almost 90% of football clubs are owned by government entities such as city mayors or regional administrations, a structure that differs significantly from privately owned clubs found elsewhere (Getnet et al., 2024). This ownership model creates a unique environment that affects how clubs are governed, financed and led. Thus, understanding the success factors of Ethiopian soccer clubs requires a tailored approach because socio-political and economic realities differ from those observed in wealthier nations. Previous studies have offered insights into the success of soccer clubs, primarily focusing on specific performance metrics, such as tactical capabilities, player performance, and training methodologies (Fang, et al., 2021; Lozano, 2024). However, these studies have largely analyzed clubs in established European and other developed leagues, with conclusions often tied to the local contexts of these countries (Miles, 2018). Additionally, Ethiopian football studies have focused narrowly on coaching behavior, fan attendance, and leadership styles, without examining broader dimensions of club success (Chekle, 2017; Alemayehu et al., 2016; Getnet et al., 2024).

This study aims to fill this gap by providing a more holistic examination of Ethiopian Premier League (EPL) clubs, integrating various dimensions such as governance, financial sustainability, leadership, human capital and fan engagement. By doing so, it addressed how these factors interact within the Ethiopian context, offering new insights into how clubs can enhance their performance and competitiveness both locally and internationally. EPL clubs are predominantly government-owned and have distinct management and decision-making dynamics. Unlike privately owned clubs, which are primarily profit-driven, government-owned clubs may prioritize political or social goals. These differences in priorities can affect resource allocation, long-term planning, and day-to-day operations. The current literature lacks an in-depth examination of how this ownership structure impacts club success. By analyzing how government control influences financial decision-making, leadership and operational strategy, this study offers crucial insights into an underexplored aspect of soccer governance.

Ethiopian soccer clubs operate in a resource-constrained environment, often lacking the financial backing that their global counterparts enjoy through sponsorships, broadcasting rights, and merchandise sales. These limitations affect not only the clubs' financial sustainability but also their ability to invest in infrastructure, training and talent development. Although financial resources are a well-documented success factor in football (Campa Planas & Kalemba, 2017; Arraya, 2022; Rija, et al., 2023), the specific ways in which Ethiopian clubs can navigate these constraints remain largely unexamined. This study addressed how clubs can maximize limited resources to improve their competitiveness and long-term viability.

Soccer in Ethiopia plays a critical social and cultural role, with fans heavily invested in the success of local teams. Fan engagement, stadium attendance, and brand loyalty are significant indicators of a club's social profile, which can influence a club's financial performance and overall success (Jiménez et al., 2023; Getnet et al., 2024). However, Ethiopian soccer clubs face unique challenges in maintaining fan engagement, particularly in an environment where financial resources for marketing and fan outreach may be limited. This study explores how clubs can build and sustain fan loyalty, even with limited financial means, to enhance their social and economic profiles.

Success factors in Ethiopian Premier League Soccer Clubs (2023/24) constitute timely and necessary contributions to soccer research. By addressing the unique challenges faced by Ethiopian clubs, including ownership, financial constraints, fan influence, clubs, the history of the club, leadership and governance, legal, game situation, human capital and media, this study fills a critical gap in the literature. Moreover, by integrating established success frameworks with a local understanding of Ethiopian soccer, the study offers valuable insights that can help Ethiopian clubs enhance their performance and competitiveness. Ultimately, this research can influence both academic discourse and practical decision-making in the Ethiopian soccer industry, contributing to the long-term success of EPL.

METHODS

Study Design and Participants

This study employed a quantitative, cross-sectional research design and collected data from all participating EPL clubs at a single point during the 2023/24 season. The primary objective was to identify and group key success factors influencing club performance into distinct categories using Explanatory Factor Analysis (EFA). EFA was deemed suitable for this study as it aims to uncover latent structures contributing to the performance and success of these soccer clubs by reducing complex data into a more manageable set of dimensions.

The research adhered to the principles outlined in the Helsinki Declaration (as revised in 2013) and received approval from the Hawassa University College of Natural and Computational Sciences Research Ethics Review Committee (CNCS-REC002/24). Informed consent was obtained from the participants through written and oral interviews, which explained the study's methodology and rationale.

A sample of 307 players was drawn from a population of 354, necessitating a well-defined sampling technique to ensure representativeness and validity. Systematic random sampling was employed as an effective method in this context, as it allows for each player to have an equal chance of being selected. In systematic random sampling, players are chosen at regular intervals from a list of the population. Initially, the players were arranged in a logical order based on their registration dates. A sampling interval (k) was calculated by dividing the total population (354) by the desired sample size (307), yielding $k \approx 1.15$. This indicates that approximately every second player would be selected after choosing a random starting point within the first two players.

Procedure:

1. List the Population: Arrange all 354 players in a predefined order (by registration).
2. Determine the Sampling Interval: Calculate the sampling interval k , which is approximately 1.15.
3. Random Start: Randomly select a starting point between the 1st and 2nd players on the list.
4. Select Players: Starting from the chosen point, select every second player until a total of 307 players has been selected.

Instruments and Measurements

The data for this study were collected using a 36-item self-administered survey completed by soccer players. This survey was designed to be a valid, reliable, and objective instrument for assessing various factors contributing to the success of EPL soccer clubs. The development of the survey followed a comprehensive procedure overseen by a consortium of experts from fields including linguistics, statistics, sports management, pedagogy, and sports science.

The research team organized five expert panels to independently review the survey's framing, content, objectivity, and internal validity. Each panel brought specialized knowledge to ensure the robustness of the instrument. For instance, a linguistics expert managed the translation between English and Amharic (the local language), conducting both initial and back-translations to ensure accuracy. This group of specialists, including the language expert, reviewed the initial, translated, and reverse-translated iterations of the survey to identify inconsistencies and ensure that the questions were comprehensible and culturally appropriate for the respondents.

Following the independent reviews, the researcher and the study's supervisors compiled and assessed the feedback, which was carefully analyzed to make necessary revisions that enhanced the survey's quality. The updated version of the survey was pilot-tested with a group of 90 individuals. Based on the results of this pilot test, the expert panels finalized the survey, refining it to 36 items using a seven-point Likert scale ranging from (1) strongly agree to (7) strongly disagree. Data collection occurred from February 8 to 21, 2024, with the researcher personally administering the surveys face-to-face at the participants' reserved hotel to ensure a controlled and comfortable environment for data collection.

Data Analysis

The study used Explanatory Factor Analysis (EFA) as its primary methodological approach to investigate the latent associations among the observed variables related to the determinants of success for Ethiopian Premier League (EPL) soccer clubs during the 2023/24 season. The selection of relevant factors was guided by Eigenvalues greater than 1 and screen plot analysis. To enhance the clarity of the results, the Varimax rotation method of orthogonal rotation was applied, simplifying the factor loadings for easier interpretation. After the rotation, factors were interpreted by identifying the variables with strong loadings on each factor. In order to evaluate the stability and dependability of the specified variables, a reliability analysis was executed employing Cronbach's alpha coefficient. All statistical analyses were performed using SPSS version 26, adhering to a 95% confidence interval.

RESULTS

A total of 307 completed items by footballers were organized and presented in alignment with ethical guidelines.

Table 1. Cumulative factorial analysis using KMO and Bartlett's tests

KMO and Bartlett's test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.819
Bartlett's Test of Sphericity	Approx. Chi-Square	11404.977
	Df	630
	Sig.	.000

The KMO value is reported as .819, which falls into the "meritorious" range according to Kaiser (1974). KMO values range from 0 to 1, where a value closer to 1 indicates that the data is suitable for factor analysis, as correlations between variables can be explained by underlying

factors (Field, 2018). A KMO score of .819 suggests that the sample size is adequate and the variables have sufficient common variance to justify the application of factor analysis (Hair et al., 2020). According to Hutcheson and Sofroniou (1999), a KMO value between .80 and .89 is considered very good, confirming that the dataset is appropriate for further factorial exploration. The Bartlett's Test of Sphericity shows an Approximate Chi-Square value of 11,404.977 with 630 degrees of freedom (df) and a significance level (p-value) of .000. Bartlett's test examines whether the correlation matrix is significantly different from an identity matrix, which would indicate that the variables are uncorrelated (El-Masri, et al 2021). The test result is highly significant ($p < .001$), rejecting the null hypothesis that the correlation matrix is an identity matrix. This implies that the variables in the dataset are sufficiently correlated and factor analysis is suitable (Pallant, 2020). Taken together, the KMO measure and Bartlett's test results confirm the suitability of the dataset for cumulative factorial analysis. These findings suggest that the dataset has an adequate sample size, significant correlations between variables, and sufficient underlying structure for the factor analysis to proceed effectively.

Table 2. Eextracted Factors Loading

Factors	Extraction		Extraction
Fan influence (F1)	.831	Long -term contract (F19)	.686
Crowded-fan support ® (F2)	.749	Rules and regulations (F20)	.732
History of the club (F3)	.762	Burocracy (corrupted) system (F21):	.766
Lack of fan ®(F4)	.797	Extended objective (F22)	.717
Media (F5)	.679	Depth (diversity) coaching staff (F23)	.959
Culture of the club (F6)	.626	Depth (diversity) of medical staff (F24)	.949
Camp life (F7)	.702	Depth of the players (F25)	.961
Payment sham (F8)	.756	Experience (national team & club) (F26)	.892
Unbalanced club budget (F9)	.702	Diversity of players (nationality) (F27)	.946
Benefit (F10)	.632	Home grown players (F28)	.916
Hospitality/service (F11)	.771	Coaches frequently changed (F29)	.543
Untimed payment (F12)	.857	Format of competition (F30)	.580
Influence of sponsors (F13)	.872	Filed (training and competition) (F31)	.669
Insurance (F14)	.865	Tied Schedule (F32)	.744
Influence of club leader (F15)	.766	Frequent injury (F33)	.778
Conflict management (F16)	.724	Short Preparation time (F34)	.765
Motivation (F17)	.767	Long preparation time (R)(F35)	.774
Short contract (F18)	.778	International competition (F36)	.857

Note. N=307. The extracted method was a principal component in Varimax, Factor loadings > 0.30 are in bold. Reverse-scored items are denoted by ®

The table 2 presents the factor loadings (extraction values) for various variables using PCA. Factor loadings serve as an indicator of the magnitude of the association between each variable and the derived factors, with elevated values reflecting a more robust correlation. Fan Influence and Support Variables such as Fan Influence (F1), Crowded-fan support (F2) (.749), Lack of fan support (F4) (.797), and Media (F5) (.679) exhibit relatively high loadings. This indicates that fan-related factors play a significant role in explaining the variance within the dataset. Strong fan engagement and media influence are key contributors to a soccer club's performance, highlighting their importance in driving club success. These findings suggest that fan loyalty and media coverage directly influence club dynamics and overall success.

Club History and Culture History of the club (F3) (.762) and Culture of the club (F6) (.626) have notable extraction values. These findings underscore the substantial influence of a club's historical and cultural context on its enduring success. Clubs with deep-rooted traditions and a strong cultural identity are more likely to foster loyalty, build a solid fan base, and experience sustained success over time.

Financial Management Financial aspects such as Unbalanced club budget (F9) (.702), Payment schemes (F8) (.756), and Untimed payment (F12) (.857) show substantial factor loadings. This suggests that sound financial management is crucial for a club's performance and sustainability. Inefficient payment schemes, budget imbalances, and delays in financial obligations may severely undermine club operations and hinder success. Sponsorship and Insurance Influence of sponsors (F13) (.872) and Insurance (F14) (.865) are among the highest-loading variables, emphasizing the importance of financial backing and welfare provisions in supporting a club's success. Clubs with strong sponsorship and comprehensive insurance policies create a stable environment for both players and staff, which is conducive to sustained performance.

Leadership and Management Variables such as Influence of the club leader (F15) (.766), Conflict management (F16) (.724), and Motivation (F17) (.767) demonstrate high factor loadings. These findings underscore the critical role of effective leadership, governance, and player motivation in a club's operations. Effective leadership is paramount for upholding organizational stability, addressing disputes, and nurturing a constructive team atmosphere that propels achievement. Human Capital and Team Depth Human resource variables, including Depth of coaching staff (F23) (.959), Medical staff (F24) (.949), Players (F25) (.961), and Experience (F26) (.892), exhibit the highest factor loadings in the table. This underscores the notion that clubs characterized by profound, diverse, and seasoned teams both in the realm of players and support personnel are predisposed to superior performance. A well-rounded team with strong medical and coaching support contributes significantly to both short-term victories and long-term success.

Competition and Game Preparation Factors related to competition, such as Frequent injury (F33) (.778), Short preparation time (F34) (.765), and International competition (F36) (.857), also demonstrate significant loadings. These variables imply that extrinsic factors such as the physical exigencies of the competition, preparatory duration, and international exposure can significantly impact a club's success. Effective injury management, adequate preparation, and experience in international competitions enhance a club's ability to compete at higher levels. In summary, the table illustrates that success in soccer clubs is multifaceted, involving strong fan and media support, sound financial management, effective leadership, skilled human capital, and competitive readiness. Each of these factors is integral in shaping the performance and longevity of a soccer club.

Table 3. Total Variance Explained

Total variance explanation			
Rotation sums of the squared loadings			
Component	Total	% variance	Cumulative %
1	6.442	17.895	17.895
2	4.249	11.803	29.698
3	4.098	11.383	41.082
4	3.830	10.638	51.720
5	2.843	7.898	59.618
6	2.593	7.203	66.821
7	2.128	5.911	72.732
8	1.687	4.685	77.417

Extraction Method: Principal Component Analysis.

The table 3 provided presents the total variance explained by eight extracted components, based on Principal Component Analysis (PCA). The results are presented in terms of the total eigenvalues, percentage of variance explained by each component, and the cumulative percentage of variance explained. Component 1 has an eigenvalue of 6.44, which explains 17.89% of the total variance in the dataset. This suggests that Component 1 is the most significant factor, contributing the highest proportion of variance among the eight components. Component 2 explains an additional 11.80% of the variance, with a cumulative variance of 29.698%. Combined, the first two components account for nearly 30% of the variance, indicating their importance in representing the underlying data structure. Component 3 adds 11.38% of the variance, resulting in a cumulative variance of 41.082%. At this point, the first three components explain over 40% of the total variance. Component 4 contributes 10.63%, bringing the cumulative variance to 51.720%. This suggests that the first four components together explain more than half of the variance in the dataset, which is a significant amount in factor analysis. Components 5 through 8 explain decreasing percentages of the variance, ranging from 7.89% for Component 5 to 4.68% for Component 8. Collectively, these components add an additional 25.69% to the explained variance. By the time all eight components are extracted, they explain a cumulative 77.41% of the total variance in the dataset. This suggests that these eight components represent a substantial portion of the data's variability, leaving about 22.583% unexplained, which might be attributed to smaller or irrelevant factors.

The extraction of eight components using Principal Component Analysis (PCA) resulted in a total cumulative variance of 77.41%, which is considered high in exploratory factor analysis (El-Masri, et al 2021). Typically, researchers aim to retain components that cumulatively explain at least 60-70% of the variance (Field, 2018). In this case, the first four components alone explain more than half of the variance (51.72%), indicating their significance. As components beyond the fourth contribute progressively less variance, their practical relevance may be limited but still useful in capturing additional data dimensions. The relatively high cumulative variance suggests that the extracted components provide a strong and comprehensive representation of the original dataset's structure, suitable for further analysis and interpretation.

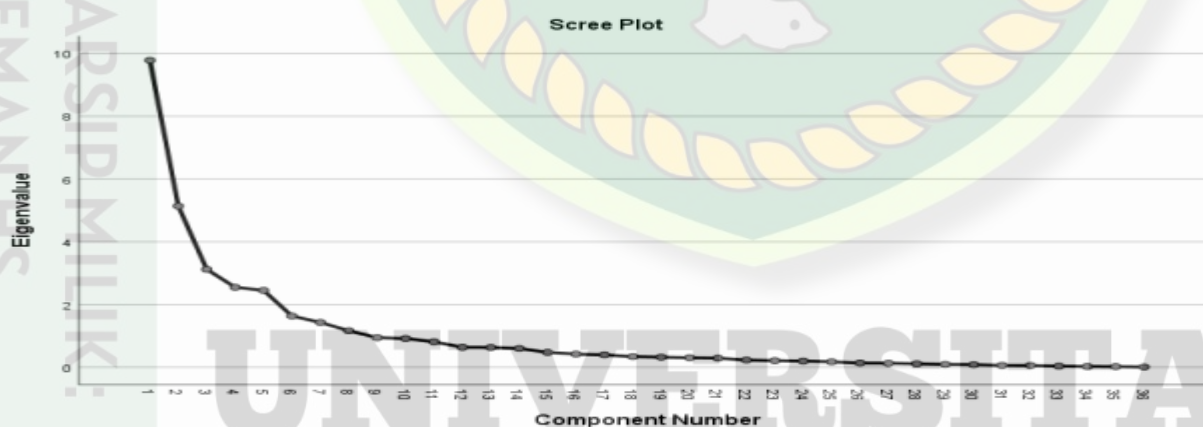


Figure 1. Screen Plot

The score plot displays observations for 36 factors, with the first component showing a notably high eigenvalue of approximately 10, indicating it accounts for the largest portion of variance in the dataset. After the first component, there is a steep decline in eigenvalues, with the second and third components around 4 and 2, respectively. This significant drop suggests that these initial components capture most of the variance.

The elbow of the plot occurs at the fourth component, where the curve begins to flatten, indicating that additional components contribute much less to explaining the variance. Beyond this point, the eigenvalues stabilize, approaching values near 1 or lower, which implies that the remaining components offer minimal explanatory power. According to Nkansah's criterion Nkansah (2011), components with eigenvalues greater than 1 should be retained for further analysis. In this scree plot, the first three components meet this criterion, while those beyond the third have eigenvalues below 1. Furthermore, the elbow criterion suggests retaining three components, as the slope of the eigenvalues decreases sharply after the third. Thus, the scree plot supports keeping three factors for further analysis, as these explain the majority of the variance in the data. This aligns with previous research on factor analysis, which indicates that the first few factors generally account for the most variance, while subsequent factors capture progressively less (Field, 2018).

Table 4. Extracted Rotated component matrices

	Rotated component matrix							
	Components							
	1	2	3	4	5	6	7	8
Depth of the players (F25)	.954							
Depth (diversity) coaching staff (F23)	.941							
Experience (national team & club) (F26)	.938							
Depth (diversity) of medical staff (F24)	.924							
Home grown players (F28)	.915							
Diversity of players (nationality) (F27)	.901							
Payment sham (unbalance) (F8)		.813						
Unbalanced club budget (F9)		.771						
Benefit (F10)		.686						
Influence of sponsors (F13)		.675						
Untimed payment (F12)		-.653						
Camp life (F7)		-.629						
Hospitality/service (F11)		-.437						
Influence of club leader (F15)			.811					
Extended objective (F22)			.811					
Motivation (F17)			.799					
Burocracy (corrupted) system (F21)			.696					
Coaches frequently changed (F29)			.666					
Format of competition (F30)				.810				
Filed (training and competition) (F31)				.806				
Tied Schedule (F32)				.622				
Frequent injury (F33)				.615				
Short Preparation time (F34)				.607				
Long preparation time (R)(F35)				-				
				.606				
International competition (F36)				.587				
Short contract (F18)					.473			
Long -term contract (F19)					.837			
Insurance (F14)					.762			
Conflict management (F16)					.631			
Rules and regulations (F20)					.595			
Culture of the club (F6)						.871		

History of the club (F3)	.861
Fan influence (F1)	.712
Crowded-fan support ® (F2)	.681
Lack of fan ®(F4)	.621
Media (F5)	.805
Extraction Method: Principal Component Analysis.	
Rotation Method: Varimax with Kaiser Normalization.	
a. The rotation converged in 12 iterations.	

Table 4 reports the inter-correlations of the extracted components of the variables. The rotated component matrix presents the factor loadings of various variables after applying Principal Component Analysis (PCA) with Varimax rotation. This method identifies which variables strongly correlate with specific components, helping to explain the factors that contribute to success in Ethiopian Premier League soccer clubs.

Component 1: Human Capital and Player Depth This component is defined by high loadings on variables related to human resources and team structure. Key factors include depth of players (F25) (.954), diversity of coaching staff (F23) (.941), experience (F26) (.938), and diversity of medical staff (F24) (.924). These variables suggest that the success of a club is strongly influenced by the depth, diversity, and experience of its players and staff. Additional high loadings for homegrown players (F28) (.915) and diversity of players by nationality (F27) (.901) emphasize the importance of nurturing local talent while integrating players from different nationalities.

Component 2: Financial Stability This component focuses on the financial elements of club management. High loadings for variables such as payment sham (unbalance) (F8) (.813), unbalanced club budget (F9) (.771), and benefit (F10) (.686) highlight the importance of financial resources. Negative loadings for untimed payment (F12) (-.653) and camp life (F7) (-.629) suggest that financial mismanagement and poor living conditions undermine stability. Effective financial management through balanced budgets, timely payments, and sponsor involvement emerges as a critical factor for a club's overall success.

Component 3: Leadership and Governance Leadership and governance variables such as influence of the club leader (F15) (.811), extended objective (F22) (.811), and motivation (F17) (.799) load highly onto this component. These findings suggest that strong leadership, strategic goal-setting, and player motivation are essential for a club's performance. However, the presence of bureaucracy (corrupted system) (F21) (.696) and frequent changes in coaching staff (F29) (.666) may negatively impact club success, signaling that inefficiencies in administration and coaching instability can be detrimental.

Component 4: Competition and Training Conditions This component highlights the significance of competition format (F30) (.810), training facilities (F31) (.806), and factors such as tied schedule (F32) (.622) and frequent injuries (F33) (.615). These factors indicate that the format of competitions, training conditions, and injury management have a considerable impact on a club's sustainability and performance. Interestingly, long preparation time (F35) (-.606) has a negative loading, suggesting that overly extended preparation times may hinder a team's competitive sharpness.

Component 5: Contractual and Financial Stability Variables related to financial and contractual security load highly on this component, including long-term contract (F19) (.837) and insurance (F14) (.762). These factors are vital in retaining key players and managing financial risks related to injuries. Other important variables include conflict management (F16) (.631) and rules and regulations (F20) (.595), which underscore the need for a structured organizational framework and adherence to policies for long-term stability.

Component 6: Club History and Culture This component underscores the significance of a club's history and culture. High loadings for culture of the club (F6) (.871) and history of the club (F3) (.861) suggest that clubs with a rich cultural and historical background tend to foster loyalty, attract fans, and perform well over time. A club's heritage and traditions play a major role in its identity and ongoing success.

Component 7: Fan Engagement Fan engagement is a key component, with variables such as fan influence (F1) (.712), crowd-fan support (F2) (.681), and lack of fan support (F4) (.621) showing strong loadings. The results suggest that fan presence and support are directly linked to club success, as fan loyalty helps drive performance and create momentum for the team.

Component 8: Media Influence Media exposure is the primary variable in this component, with media (F5) (.805) being the most significant factor. Media coverage plays a crucial role in building a club's brand and increasing its visibility. This finding indicates that strong public relations and media presence can enhance a club's appeal and influence both on and off the field. In summary, the rotated component matrix highlights the multifaceted factors influencing the success of Ethiopian Premier League soccer clubs, ranging from human capital and financial stability to leadership, fan engagement, and media presence. Each component provides insight into the diverse elements that contribute to the overall performance and sustainability of a club.

DISCUSSION

This study employed a quantitative, cross-sectional research design to gather data from all participating Ethiopian Premier League (EPL) clubs during the 2023/24 season, aiming to identify and categorize the key success factors influencing club performance through Explanatory Factor Analysis (EFA). This methodology was well-suited for revealing the latent structures that contribute to the success of soccer clubs, effectively simplifying complex datasets into manageable dimensions.

The analysis began with the Kaiser-Meyer-Olkin (KMO) measure, yielding a score of .819, categorizing it as "meritorious" according to Nkansah (2011). KMO values range from 0 to 1, with higher scores indicating greater suitability for factor analysis, signifying significant correlations among variables due to underlying factors (Field, 2019). The score of .819 indicates an adequate sample size and sufficient common variance, supporting the validity of the factor analysis (Thao, et al., 2022). Furthermore, Hutcheson and Sofroniou (1999) classify a KMO score between .80 and .89 as "very good," reinforcing the appropriateness of the dataset for factorial exploration. And Bartlett's Test of Sphericity produced a significant Chi-Square value of 11,404.977 with 630 degrees of freedom and a p-value of .000. This result indicates that the correlation matrix significantly differs from an identity matrix, suggesting a correlation among the variables (El-Masri, et al 2021). The significant p-value ($p < .001$) allows for the rejection of the null hypothesis, confirming the dataset's suitability for factor analysis (Pallant, 2020). Together, the KMO measure and Bartlett's test results affirm the dataset's readiness for cumulative factorial analysis.

The factor loadings derived from the Principal Component Analysis (PCA) reveal the strength of the relationship between each variable and the identified factors. Variables associated with fan influence (F1), crowd support (F2), lack of fan support (F4), and media presence (F5) exhibit high loadings, highlighting the crucial role of fan engagement and media influence in driving club performance. Conversely, some studies suggest that while fan support is significant, it is not the sole determinant of success; other factors, such as team strategy and management, may hold equal or greater importance (Zou, 2023; Chen, et al 2022).

Additionally, the findings indicate that a club's history (F3) and culture (F6) are significant, emphasizing that a robust historical context and cultural identity foster loyalty and sustained

success. This result is consistent with research Taylor, Mellalieu, James, & Barter, (2010) and (Parganas, Liasko, & Anagnostopoulos, 2017) which highlights the importance of multiple views and factors associated with success. Financial management variables such as unbalanced budgets (F9), payment schemes (F8), and untimely payments (F12) underscore the necessity of effective financial practices for operational success. These results are consistent with research by Sakinç, Açıklın, & Soygüden, (2017) which highlights the importance of financial stability in achieving competitive success in sports organizations.

Leadership and management variables also play an essential role, as indicated by high loadings for leadership influence (F15), conflict management (F16), and player motivation (F17). These findings align with literature suggesting that effective leadership is vital for maintaining organizational stability and fostering a positive team environment (Zülch et al., 2020; Zülch et al., 2021; Ruta et al., 2020; Malagila et al., 2021). However, some researchers argue that leadership alone cannot account for all performance outcomes, as team dynamics and external pressures also significantly affect success (Costa et al., 2022; Marino, 2021).

The analysis also identified components related to human capital and team depth, indicating that clubs characterized by depth, diversity, and experience among players and staff are likely to achieve superior performance. Factors such as injury frequency (F33), preparation time (F34), and international exposure (F36) highlight the significant impact of external conditions on club success. While these findings are supported by previous studies emphasizing the role of player health and preparation in performance (Post, 2023; Wanat & Leksowski, 2022; Zülch et al., 2020), the interdependence of these factors suggests a more complex relationship that warrants further investigation.

In summary, the findings indicate that success in EPL clubs is multifaceted, depending on a combination of strong fan support, effective financial management, proficient leadership, skilled human capital, and competitive readiness. While the eight extracted components account for a significant portion of the variance (77.41%), approximately 23.26% remains unexplained, suggesting the influence of additional factors. Future research is needed to explore the interplay among these variables and their implications for governance and performance in soccer teams, particularly within the Ethiopian Premier League.

In conclusion, this study enhances the understanding of success factors in EPL clubs, underscoring the need for ongoing research into both on-field and off-field dynamics. Addressing the complexities of financial management, fan engagement, and leadership can yield valuable insights for enhancing the competitiveness of Ethiopian soccer clubs. Future research should also investigate external influences, such as economic stability and managerial decisions, to further elucidate the intricate web of factors dictating success in football.

CONCLUSION

The study on success factors in Ethiopian Premier League (EPL) soccer clubs for the 2023/24 season offers a detailed understanding of the critical elements driving club performance. Through Explanatory Factor Analysis (EFA), the research identifies the key relationships between various variables influencing success. By applying Varimax rotation, the study refines these findings, emphasizing core areas such as fan engagement, financial management, human resources, leadership, and competition readiness as essential factors.

The results highlight that strong fan support, sound financial management, and solid leadership are crucial for maintaining long-term success. Clubs with a deep-rooted history and rich cultural heritage are more likely to build loyalty and sustain their performance. Human capital, particularly the experience of players and coaching staff, also plays a fundamental role in achieving both short-term victories and ensuring long-term growth. Furthermore, external

factors, including media presence and international competition exposure, significantly impact club success, indicating that success is shaped by a blend of internal and external dynamics.

To sum up, the research elucidates the imperative for an integrative strategy in the administration of soccer clubs, wherein fiscal sustainability, proficient governance, stakeholder engagement, and media prominence are essential components for attaining success. Supported by strong statistical validation through KMO and Bartlett's tests, the analysis provides a solid framework for understanding the factors that drive success in Ethiopian soccer.

Conflicts of Interest

The authors declare no conflicts of interest.

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Authors' Contributions

All authors contributed significantly to this study: which took the lead in designing the study, collecting and analyzing data, interpreting results, drafting the manuscript, and revising it critically. All authors have reviewed and approved the final version of the manuscript.

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Management of Sports Facilities and Infrastructure DISPORA Salatiga City in Facing the Digital Era in 2024

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ABSTRACT

Background: The rapid development of digital technology has affected many aspects of life, including sports. Dispora Salatiga City, as the institution responsible for managing sports facilities and infrastructure, is certainly faced with challenges and obstacles in adapting to the digital era. This study aims to analyze the optimization of sports facilities and infrastructure management in Salatiga City in facing the digital era, focusing on digital implementation. **Methods:** This research method uses a qualitative approach. Data was collected through direct observation, in-depth interviews with the Dispora, and documentation. The data obtained was analyzed qualitatively through the following stages: data collection, data reduction, data presentation, and conclusion drawing. Data validity was tested using triangulation of sources and data. **Results:** The results showed that Salatiga City Youth and Sports Office has started to implement digital technology into four management functions: planning, organizing, implementing, and supervising. However, implementing digitalization still faces several obstacles, including limited technology-savvy human resources, lack of digital infrastructure, and suboptimal budget allocation. To improve the quality of management in the digital era, the Salatiga City Youth and Sports Office is advised to strengthen technology training for staff, optimize collaboration with the private sector, and take advantage of central government programs related to the digitization of public services. With these steps, it is expected that sports facilities and infrastructure can be managed more transparently, easily accessible, and support the advancement of sports in Salatiga City.

Keywords: Management, facilities and infrastructure, sports, digital transformation

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- C) Analysis and interpretation of data;
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INTRODUCTION

Sports have become a necessity and part of people's daily lifestyle. Sports are all activities that involve the mind, soul, and body. In addition, sports also aim to maintain and improve health, fitness, achievement, intelligence, and human quality, instil moral values and noble character, sportsmanship, competition, and discipline, and strengthen and foster national unity and

integrity. In addition, the government has a role in developing national sports in organizing sports in terms of management and sports facilities and infrastructure, which was later passed in Law number 11 of 2022 concerning sports, replacing Law number 3 of 2005 concerning the national sports system. This regulation is a legal basis for strengthening the sports ecosystem in Indonesia through a more modern approach and is oriented towards long-term development. Through this regulation, the government focuses on improving peak performance and comprehensive sports development. The government seeks to strike a balance between achieving high-level sporting achievements and fulfilling the sporting needs of the wider community. In addition, developing sustainable sports involves collaboration between the government, educational institutions, communities, and the private sector to create a sporting environment that supports innovation, talent development and adequate facilities.

Sports components are divided into two, namely sports facilities and infrastructure. These components are important in carrying out optimal management. Facilities and infrastructure are important components of sports management. Sports facilities include equipment that can be used in activities such as basketball and volleyball. In contrast, sports infrastructure supports buildings that meet sport needs, such as fields, stadiums, and swimming pools (Asad et al., 2020; Mulyo et al., 2019). The existence of adequate sports facilities and infrastructure is the main key to encouraging the growth and organization of sports (Gunawan et al., 2021). Sufficient facilities and infrastructure are indicators that sports development is going well.

Management is the process of combining existing resources to achieve organizational or organizational goals. An organization's success depends on the manager's ability to understand circumstances, make strategic decisions, and adapt to change. Management is a process of regulating and utilizing the organization's resources through members' cooperation to achieve organizational goals effectively and efficiently (Candra Wijaya & Rifa'i, 2016). According to George R. Terry, management is achieving organizational objectives through planning, organizing, directing, and controlling activities.

The management function is the most important aspect of management. Management, as a dynamic process, always requires the application of its functions on an ongoing basis to ensure the sustainability of the organization. Good management certainly includes four functions: planning, organizing, implementing, and supervising.

Management functions include the planning process, which includes setting goals to be achieved, the organizing process, which includes the division of tasks and responsibilities, the implementation process, which includes giving directions and work orders; and the supervision process, which involves making observations, reviewing reports, and conducting work evaluations (Indartono, 2016)

Planning is the most important function in management. Planning is the first step in an organization setting goals and the steps to be taken. It can affect other management functions because planning helps to anticipate various possibilities that can occur and take preventive steps to overcome future risks. Thus, planning is important before running an organization (Angelliza Chantica et al., 2022).

Organizing covers the relationship of individuals with each other in an organization. Has an important role in creating arrangements and managing organizational resources that can be used optimally in achieving predetermined goals. Organizing involves the division of organizational structure, division of tasks, and determination of responsibilities. A well-organized organizational structure through formal rules and clear procedures will increase stability and predictability in management (Mango, 2018).

Actuating means the organization can carry out what has been planned and said to be ready for use. In this function, it is necessary to cooperate with each other to turn the plan into reality.

Controlling plays an important role in the final stage of the management function, ensuring and observing that tasks are carried out correctly and according to plan (Jamrizal, 2022). The controlling function not only measures and integrates the implementation of tasks but also helps to find deviations during the implementation process. In addition, controlling can be called evaluation in the context of evaluation management, namely the process of ensuring that the activities carried out are in accordance with what has been planned (Samsirin, 2015).

Sports management is the application of management principles in the context of sports to achieve the goals of sports organizations (Susanto, 2022). In other words, the basis of sports management is management and sport. Sports management covers various aspects, such as sports programs, recreational sports, educational sports, and achievement sports. Sports management aims to ensure that sports programs and facilities managed by related organizations or institutions can run well (Robbins. Et al., 2016).

The digital era has become an integral part of the daily lives of Indonesians, covering various sectors ranging from education and health to the digital economy, which continues to expand in scope rapidly (Firmansyah, 2023). Digital technology opens unprecedented growth opportunities in sports, offering the potential to get closer to consumers through innovative and customized experiences (Giorgio et al., 2018). This is identified by the demand for new technologies and the shift to digital communication and online platforms as key responses to adopting digital technologies that emphasize flexibility and adaptability (Glebova et al., 2022; Nanda et al., 2021). Artificial intelligence technology has the potential to significantly improve total factor productivity, such as improving member performance, reducing operational costs, and increasing competitive edge (Tsai, 2024; Zhang & Li, 2025).

In today's digital era, digital transformation is an urgent need for every organization, including public agencies, to remain relevant in continuous environmental dynamics. Digital transformation is a comprehensive effort to adopt digital technology to transform all aspects of business (Đašić, 2023). This transformation process includes not only the implementation of technological infrastructure or software but also changes in organizational culture, thinking about human resources, and strategic approaches to decision-making.

However, the process of embarking on digital transformation is often met with various complex challenges, especially for public institutions such as Dispora. In addition, the success of digital transformation depends heavily on the readiness of organizational resources, which includes technical capabilities, people skills, and visionary leadership support. Resistance to change, lack of understanding of the benefits of digital technology, budget constraints, and lack of adequate digital infrastructure are some of the main challenges often faced.

The implementation of digital-based management helps the government to optimize the management of sports facilities better and increase community accessibility. Better accessibility, financial support, and effective management are needed to increase facility utilization (Nahid & Abrar, 2023). Budget constraints are often an obstacle in the process of digitizing sports facilities. The focus of most local governments is still on meeting basic needs, so budget allocations for technology development are often neglected. In addition, the management of sports facilities and infrastructure usually faces difficulties in adopting technology due to unprepared human resources. Organizations must take active steps to overcome obstacles to adopting new technologies through appropriate policies, adequate training, and effective change management (Qi et al., 2024).

Salatiga City, known as the "City of Sports", has adequate sports facilities and infrastructure to support the development of the sports sector. The local government, through

the Salatiga Department of Youth and Sports (Dispota), has an important role in managing sports facilities and infrastructure in Salatiga City. Dispota Salatiga City functions as the main implementer of sports facilities and infrastructure management. It is not only responsible for maintaining existing sports facilities but also for planning and implementing innovations that will improve the quality of sports services.

In facing the challenges of the new technology era, Salatiga City's Dispota needs to develop a comprehensive and adaptive strategy to ensure that the process of digitizing sports facilities and infrastructure can run optimally. This is in line with the condition of Salatiga City's Dispota, which is facing the same challenges, such as the lack of competent human resources and the budget for technology utilization that is still not maximized. Therefore, the strategy should include several key steps, such as budget allocation for digital infrastructure development, increasing human resource competency development through technology training, and establishing good cooperation with external parties with the necessary competencies and resources. Competency development programs can increase the capacity of human resources (Saputro, 2022).

A previous study conducted by Yixi Wang (2024) examined in depth the impact of digital transformation on the sports industry. This research highlights the major transformations in the sports industry, especially in the transition from conventional business models to more sophisticated digital-based strategies. Wang also identified that many sports organizations face various challenges. These include cultural resistance to entrenched traditional values and the great need for strategic investment in technological advancement and application. The author asserts that the sports industry is caught between maintaining traditional values and using digital technology optimistically. As such, a strategic balance is needed for organizations to remain relevant in the ever-evolving digital age.

Another study by Ahmed & Hasan (2022) identified a significant gap in the implementation of digital transformation of sports facilities in Saudi Arabia. The findings indicate that one of the main obstacles in efforts to improve sports facility management's efficiency and effectiveness is the lack of digital strategies. The researchers emphasized that digital implementation can enhance the performance of sports facilities, especially through increased productivity and competitiveness.

However, limited research still discusses how the digitization process can contribute to the management of sports facilities and infrastructure to support overall service quality improvement. Therefore, this research becomes relevant to further exploring the readiness and challenges faced by public agencies in implementing digital transformation, especially in the context of managing sports facilities and infrastructure.

Focusing on implementing digital transformation in the management of sports facilities and infrastructure by using a qualitative approach, the researcher has the opportunity to analyze the management of sports facilities and infrastructure in Salatiga City in the digital era. Therefore, this study aims to analyze the optimization of sports facilities and infrastructure management practices in the digital era. In addition, the researcher outlines the findings on the challenges and obstacles faced by Salatiga City's Dispota in the digital era.

METHODS

This research method uses a qualitative approach and focuses on understanding the phenomena that are happening related to the role of organizational management in the management of sports facilities and infrastructure of the Salatiga City Dispota in facing the digital era. According to Sugiyono, qualitative research methods are suitable for deeply understanding phenomena through direct interaction with research subjects. The qualitative approach emphasizes

subjective understanding and involves interviews, observation, and documentation (Ernawati et al., 2022).

The time and location

The research took place at the Office Department of Youth and Sports Salatiga City, located at Jl. LMU Adisucipto No. 2 (Gor Hatti Beriman) Salatiga, Central Java. The target of this research includes the management of sports facilities and infrastructure for recreation, tourism, and sports implemented by the Salatiga City Youth and Sports Office.

The goals

The research targets or sources in this study amounted to 4 people. The sample in this study included people in the organizational structure of the Salatiga City Dispora. The selection of sources is based on the parties involved in managing sports facilities and infrastructure. The four people referred to as samples are the Head of the Salatiga City Department of Youth and Sports, the Secretary of the Salatiga City Department of Youth and Sports, the receiving treasurer, and the asset registrar.

Research procedures

This method of taking respondents does not provide equal opportunities or opportunities for each population component or individual to be selected as a data source (Sugiyono, 2013). The criteria for sources that can represent research indicators and qualify as respondents are determined in determining informants. The following are the criteria for respondents in this study, namely: 1) being included in the organizational structure of the Salatiga City Department Youth and Sports Agency, 2) being the manager of sports facilities and infrastructure of the Salatiga City Department Youth and Sports Agency, and 3) willing to be an informant.

Instruments

The instruments of this research are interviews, observation, and documentation. Observation can be done in a participant and non-participant manner to provide an in-depth understanding of the organizational management practices of sports facilities and infrastructure in the digital era. Structured and unstructured interviews were conducted with facilities managers to gain an in-depth knowledge of organizational management. The instruments in this study will be explained in Table 1 below:

Table 1. Research instruments

No.	Indicator	Sub Indicator
1	<i>Planning</i>	a. Preparation of operational budget planning b. Technology utilization budget c. Adoption of technology used d. Data collection method e. Target setting f. Obstacles and challenges of the <i>planning</i> function in the digital era
2	<i>Organizing</i>	a. Organizational structure b. Job c. Coordination d. Barriers and challenges of <i>organizing</i> function in the digital era
3	<i>Actuating</i>	a. Implementation of the draft operational budget b. Decision-making mechanism c. Implementation of activities

		d. Implementation of administration
		e. Obstacles and challenges of the <i>actuating</i> function in the digital era
4	Controlling	a. Operational budget supervision
		b. Evaluation
		c. Barriers and challenges of <i>controlling</i> function in the digital era

Data collection techniques

This research data collection technique is through source and data triangulation techniques. Source triangulation evaluates the credibility of data by examining data from various sources. Data validity is tested through the data triangulation method, which is the examination of data from multiple sources to ensure the accuracy of the data (Alfasyur & Mariyani, 2020). Triangulation can involve various parties in data collection, comparing results from multiple data collection techniques or using different data sources. Data collection includes written documents, archives, or other relevant sources.

Data analysis techniques

Data analysis used the Milles and Huberman analysis model, which consists of data collection, reduction, presentation, and conclusion drawing. Data reduction means simplifying data to make it easier to manage. Data presentation includes grouping data so that it is easier to understand. Concluding requires interpreting the data and verifying the findings through various techniques to ensure accuracy (Intissar & Rabeb, 2015). The methodology in this study is structured to provide an in-depth explanation of the influence of organizational management on improving the optimization of sports facilities and infrastructure management in Salatiga City in the digital era.

RESULTS AND DISCUSSION

RESULTS

The results of the study indicate that sports facilities and infrastructure management plays an important role in efforts to improve the optimization of sports facilities and infrastructure management, especially in the digital era. This management process includes the application of management functions such as strategic planning, effective and structured organization, targeted implementation, and systematic supervision. In addition, this study identified findings such as a number of challenges faced by the Youth and Sports Service (Dispora) of Salatiga City in implementing sports facilities and infrastructure management amidst the development of the digital era.

Planning

The results of this study found that the planning of sports facilities and infrastructure at the Salatiga City Youth and Sports Office is carried out in a structured manner that focuses on the priority scale of activity needs. Preparing a budget work plan is based on an evaluation of the needs and priorities of the previous year and adjusted to the available budget. A budget work plan is created. This process involves planning to construct, procure and maintain sports facilities to ensure that they operate sustainably and optimally. Planning affects budget absorption due to the assumption that most of the proposed budget will not be approved, which results in the proposed budget being larger than necessary without considering the real needs in the field and the ease of implementation (Ratag et al., 2019).

In facing the digital era, Salatiga City Youth and Sports Office has started the first step of transformation by gradually adopting digitalization. This can be seen from the slow digital data collection process. However, the utilization of this technology is still not fully maximized. Some important processes, such as the creation of field user schedules, renter data, and retribution deposit letters to the city government, are still done conventionally, which can potentially hamper work efficiency.

However, the discovery that the Salatiga City Dispora's website, SIGORA (Sports Center Information System), has not been functioning for a long time is an obstacle that must be overcome so that the public can more easily access information about sports facilities in Salatiga city. The importance of orientation towards digital technology adoption is that companies also need to be able to manage and make the best use of digital technology (Khin & Ho, 2019).

Dispora Salatiga City also uses social media to increase interaction with the community. Social media is used as a platform to convey information related to sports facilities, activities, and programs available. For the digitalization transformation to have a greater impact in the future, it is necessary to set clearer goals for the development needs and priorities of digitalization. With a well-thought-out strategy, Salatiga City sports facility management is expected to be more responsive to the needs of the community in the age of computers and the internet.

A comprehensive analysis is an important foundation Salatiga City's Dispora uses in developing an optimal plan for sports facilities and infrastructure management. The analysis involved evaluating the needs of sports facilities and infrastructure, as well as mapping out priorities for development and maintenance in line with the strategic goals of the local government. In addition, clear goal setting becomes a benchmark in improving the quality of available sports facilities and infrastructure. This step aims to ensure that sports facilities not only meet functional standards but can also provide long-term benefits to the people of Salatiga City.

However, challenges and obstacles have been identified in the management of sports facilities and infrastructure, including administrative records that are often not carried out optimally. These limited human resources are competent in managing each available facility. These limitations will directly impact the effectiveness and efficiency of member performance so that the management process does not run optimally. In addition, the lack of utilization of digital technology for data collection and management of facilities and infrastructure hampers the organization's ability to provide quality services to the community. Therefore, a more comprehensive approach is needed to increase the capacity of human resources, improve information and recording systems, and integrate digital technology. This makes the management of sports facilities more efficient and optimized.

Organizing

The results show that the organization of sports facilities and infrastructure management in Salatiga City's Dispora covers the organizational structure, division of tasks, and authority. Regarding organizational practices, Salatiga City Dispora does not have a special structure that specifically handles the management of sports facilities and infrastructure. The organizational structure refers to the general structure of Salatiga City's Diaspora, which is regulated by the Salatiga Mayor's regulation. The regulation discusses the main tasks and responsibilities of each field in the organization. The more complex an organization is, the more jobs there are.

The division of tasks involves several main positions, namely the head of the agency, the secretary of the agency, the receiving treasurer, the sports field, asset recording, and the field manager. Each position has duties and authorities that have been adjusted to the functions and each position. The head of the department is responsible for strategic decision-making regarding

sports facility policy, while the department secretary is responsible for organizing operational activities. The asset registrar ensures that all sports facilities are properly recorded and inventoried, while the Receiving Treasurer is responsible for recording and managing incoming funds. The sports field is responsible for all sports activities, including construction, maintenance, and sports activities. Field officers have specific duties in the maintenance and supervision of sports facilities. The division of responsibilities of field officers is based on the type of infrastructure available. This aims to ensure that each sports facility receives optimal attention and functions optimally in supporting sports activities. This structure demonstrates the efforts of the Salatiga City Dispura to maximize facility management.

The coordination carried out by Dispura and field officers is to divide human resources based on each field and have their person in charge. In addition, the lack of human resources to manage the field resulted in the absence of guards in all existing facilities, confusing the community when using the field. In addition, because they are less skilled in using technology, many tasks and responsibilities overlap. As a result, it requires the help of coworkers to complete the work, which consumes more time and causes the work to take longer.

In the all-digital era, everyone must adapt to change, as is how the Salatiga City Dispura manages sports facilities and infrastructure. This is also true for Salatiga City's Dispura Office, which faces the challenge of utilizing technology to improve the quality and effectiveness of sports facility management.

The results showed that there are some significant obstacles, especially related to limited human resources. This, coupled with the absence of a special organizational structure, impacts the unclear main duties and functions as administrators of sports facilities and infrastructure. These limitations trigger concurrent positions, causing many tasks and responsibilities to be delegated to other members.

Actuating

In terms of implementation, the management of sports facilities and infrastructure in Salatiga City has been carried out in a structured and systematic manner. Dispura Salatiga City manages sports facilities and infrastructure by referring to the Budget Implementation Document (DPA) as the main reference in planning and budget allocation. The DPA is a strategic document that ensures the use of the budget following the pre-planned work program, which includes the construction, maintenance, and management of sports facilities.

Decision-making is systematic and structured. The head of sports is the main person in charge, making decisions regarding the management of sports facilities and infrastructure. This process involves working with relevant parties such as facility management staff, local government, and external partners to ensure policies that meet sports facilities' operational and maintenance requirements. Cooperative relationships between organizations are very important in the success of an activity (Gonçalves & Franco, 2024).

Dispura Salatiga City has started using conventional and digital administration systems to support the management of sports facilities and infrastructure and the implementation of sports activities. However, some parts of the administration are still done manually. This is mainly related to the speed of data access and the possibility of recording errors. This can lead to reduced efficiency in management and result in a lack of information needed for decision-making. As a result, one of the necessary measures to improve the efficiency of Salatiga City sports facility management is to optimize the digital administration system.

A comprehensive analysis was conducted to identify barriers and challenges to implementing sports facilities and infrastructure management. It was found that the condition of human resources lies in generational differences because not all are proficient in operating technology, so it takes time to learn to use it. Dispura can ensure the implementation of

management that is more in line with the demands of the digital era through a more modern and collaborative approach, and digital-based data collection can provide convenience in improving work accuracy and efficiency.

Controlling

The supervision aspect is an important component in the effort to optimize the management of sports facilities and infrastructure in Salatiga City. Good supervision ensures that sports management aligns with procedures, budgets, and objectives. In practice, internal and external parties conduct supervision in Salatiga City's Dispora. Internal supervision is carried out in a tiered manner by the organizational structure that includes the head of the sports sector, the secretary of the office, and the heads of related fields as an independent institution tasked with verifying and evaluating the performance of members of the Dispora in the management of sports facilities and infrastructure. This supervision focuses on budget management, facility maintenance, and implementing planned programs. While the inspectorate of Salatiga City carries out the external party.

One of the main objectives of this supervision is to ensure that all sports facilities and infrastructure management activities are carried out following the procedures and budget allocations stipulated in the Budget Implementation Document (DPA). Budget quality has two characteristics: budget evaluation and budget clarity (Wattimury, 2023). The Dispora carries out this budget supervision regularly every quarter by assessing the achievement of activities based on predetermined indicators. However, budget supervision cannot be carried out consistently.

In general, performance evaluations are only conducted in emergencies, such as problem reports or discovering problems in management. The evaluation is usually accompanied by a coordination meeting to solve the issues. Disorganization can be a major obstacle to managing sports facilities. This disorganization can affect the level of discipline of managing employees and prevent issues that may occur from being immediately identified, such as facility damage, budget deviations, or lack of routine maintenance. As a result, problems that are not immediately detected can develop into bigger problems and cause sports facilities not to function properly.

In addition, the Salatiga City Dispora needs to conduct periodic evaluations of the implementation of digitalization so that an in-depth analysis of the challenges experienced can be performed. Successful digital transformation will improve efficiency and effectiveness in the management of sports facilities and increase the potential to attract people to participate in sports activities. The purpose of an evaluation is to understand a policy's objectives, the methods used to implement it, and the impact obtained. Therefore, digital orientation and capabilities may indirectly impact organizational performance. This is because innovation may serve as an intermediary. Irregular evaluation can affect work discipline and hinder the discovery of problems in managing sports facilities and infrastructure in Salatiga City.

Therefore, performance evaluations should be conducted more frequently and better as part of an organized and comprehensive oversight effort. Digital technology, such as application-based reporting systems, can improve monitoring efficiency and facilitate evaluation. Dispora Salatiga City ensures that the management of sports facilities and infrastructure is optimized, clear, and accountable with a supervisory approach supported and enhanced by modern technology.

Challenges in the Management of Sports Facilities and Infrastructure

One of the main problems faced in the management of sports facilities and infrastructure in Salatiga City is the limited human resources, both in terms of quality and quantity. This is a major obstacle to sustainable and optimal management. Another influential factor is the

difficulty of human resources' difficulty adapting to digital technology, which is largely due to the generational differences between members. This difference creates differences in mastery of technology, and some managers take longer to learn and operate digital devices used in management. In addition, the limited number of experts in maintaining sports facilities is also an obstacle that affects work efficiency. Workloads that are not well distributed and appropriate often lead to suboptimal management of sports facilities and infrastructure. This has an impact on the quality of facilities and user satisfaction. Therefore, there is a need for strategic efforts to increase human resources' ability through continuous training, adding competent experts, and developing a technology-based management system. This method is estimated to improve the efficiency of sports facility management and help achieve overall sports development goals.

As a public service provider in sports, the Department of Youth and Sports (Diaspora) is responsible for maintaining and improving the quality of services and sports facilities available to the community. However, government budget constraints are often insufficient to keep all existing sports facilities optimally, which is a major problem. This can lead to some facilities not being properly maintained, impacting the quality of services provided to the community. Creative approaches, such as more efficient budget allocation based on necessary priorities and collaboration with the private sector through sponsorships or partnerships, are needed. These methods will allow Salatiga City's Diaspora to maintain the decommissioning of sports facilities and still provide high-quality services to the community.

DISCUSSION

This study's results reveal gaps in the implementation of sports facilities and infrastructure management at the Department of Youth and Sports (Dsipora) of Salatiga City. Although the main components have been analyzed in-depth, planning, organizing, implementing, and supervising have not run optimally. Based on the research findings, the elements of organization and supervision are the aspects that need special attention to be improved to achieve work efficiency optimization. It will achieve goals effectively through measurable planning, clear division of tasks, data-based decision-making, and objective performance evaluation. Furthermore, this research is also expected to help Salatiga City Youth and Sports Office provide better services to the community and support sports development by implementing more structured management strategies and appropriate technology integration.

Although Salatiga City Dispora has made significant efforts to integrate technology into sports facilities and infrastructure management, there is still considerable room for improvement in optimizing the process. A thorough evaluation of the implementation of each stage of the management process is needed to identify weaknesses and obstacles in the implementation and formulate more effective measures to optimize the management of sports facilities and infrastructure.

An empirical contextual approach was used to explain the conclusions of this study, which was supported by an in-depth literature review. Some main factors influencing the findings include an organizational structure that does not fully support management efficiency, a lack of human resources capable of carrying out management tasks, and budget limitations that hinder program implementation. These variables are crucial in determining the difference between implementation and planning. In addition, the review of relevant literature provides a theoretical basis for the analysis and explains how these variables affect the effectiveness of facilities and infrastructure management. In addition, the literature helps determine methods that can be used to overcome these challenges. Therefore, the findings make a theoretical contribution to developing more efficient and sustainable methods in the future, in addition to simply reflecting practical conditions.

The study's results showed that although significant progress has been made, gaps and disparities still require further attention. This comparison provides a basis for conducting a thorough analysis of areas for improvement and enhancing practices in the implementation of sports facilities and infrastructure management.

This research emphasizes the importance of developing an action plan based on the identified findings. Strategic actions need to be taken, including intensive training for available human resources, the addition of competent experts, and the integration of digital technology in the management data collection system in order to achieve optimal facilities and infrastructure management practices.

CONCLUSION

This study revealed weaknesses in implementing sports facilities and infrastructure management under the Department of Youth and Sports (Dispora) of Salatiga City. The main components of management, such as planning, organizing, implementing, and monitoring, have been identified as part of the work system. However, the results show that implementing these components is still not optimal. This indicates that gaps must be improved to effectively and efficiently manage sports facilities and infrastructure. The research findings show that the aspects of organizing and supervision require special attention to enhance management effectiveness. In organizing, a clear and targeted division of tasks is very important to improve work efficiency. However, this process has not been fully completed, which can lead to an overall workload and delays in achieving company goals. In addition, decision-making in task execution is not based on an organized and systematic framework. As a result, the implementation or mobilization process does not go well. Furthermore, evaluation of members' performance has not been conducted regularly and thoroughly in supervision. This leads to a lack of relevant feedback to find problems and opportunities for improvement. Therefore, there is an urgent need for a structured evaluation system and regular reporting of performance results to ensure improvements in the quality of management. A systematic approach to planning should be implemented as a solution. Needs analysis, proper resource allocation, and prioritization of work in line with organizational goals are all part of this process. Structured decision-making is crucial for implementation, so every action has a clear basis. These actions will help optimize the management of sports facilities and infrastructure, especially in the digital era.

To provide systematic direction for all members, clear work guidelines must be established and human resources must be trained regularly to meet the needs of the digital era. Digital technology is also crucial to help with faster and more accurate decision-making processes as it enables extensive data integration, speeding up work processes and improving operational efficiency. On the controlling aspect, evaluation reports should be regularly incorporated into the work cycle. Structured reports can help assess performance and make strategic decisions for future improvements. In addition, reports also provide in-depth insights into how effectively the program has been implemented. As a way forward, implementing the recommendations of this research can help improve the quality of management. Proper technology integration in each component of the management function, starting from planning, organizing, actuating, and controlling, will encourage better management, strengthen sports development, and provide significant benefits to the wider community.

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CONFLICT OF INTEREST

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Predicting the Performance of Certain Fundamental Skills Based on Selected Physical Tests for Young Football Players in Mosul Academies

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ABSTRACT

The measurement process in physical education and sports sciences, which focus on motor behavior, is more complex than in other sciences due to internal and external factors' significant and immediate influence on humans. Consequently, there is growing interest in tests essential to life, work, and performance. This study aims to establish predictive equations for skill tests based on several physical tests for young football players in the Mosul city academies. The researchers used a descriptive correlational method as it suits the nature of the research problem. The research sample consisted of young players, totaling (96), after excluding the pilot experiment sample, the reliability, and the players absent from the tests, which amounted to 74 players. Thus, the research sample represented (56.47%) of the total population of the study. The results of this work show that the physical tests used in the research contributed significantly to the results of the dribbling and passing skill tests, which underscores the importance of the physical tests in assessing the dribbling and passing skills of young football players in the academies of Mosul City. In conclusion, the research concluded that physical tests are effective for young players in the Mosul City academies.

Keywords: Physical, Dribbling, Passing, Tests

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INTRODUCTION

The measurement process in physical education and sports sciences, which deals with motor behaviour, is more complex than in any other science (Gao et al., 2021). Internal and external factors significantly and instantly influence humans. Therefore, interest has increased in tests that play a significant role in various areas of life, work, and performance. The test aims to establish programmed work as an evaluative tool that helps diagnose areas of weakness and strength (Weinberg & Gould, 2023). Proper planning or progress toward improvement can only

occur based on accurate evaluation. It can only be achieved through objective testing and scientific measurement. Tests are considered a tool for objective evaluation in the sports field (Chaabene et al., 2018). They greatly benefit coaches by enabling them to improve training efficiency (Chaabene et al., 2018). Tests are typically based on principles that define their objectives, content, and methods of implementation, which in turn help us evaluate physical and skill performance and compare levels to set goals (Weinberg & Gould, 2023). The extent to which performance aligns with the objectives is determined, which given the importance of tests and measurements in all sports, which serve as the basis for evaluation. Data and information obtained through objective and decisive measurements and tests provide the ability to determine many fundamental purposes of measurement in diagnosis, classification, and scientific research (Kraemer et al., 2012). Through them, it is possible to identify points of deficiency, find appropriate solutions to address these issues and evaluate the adopted programs. (Al-Zubair, 2019).

Tests and measurements are essential scientific tools in physical education and sports sciences (Williams & Lacy, 2018). They play a prominent role in proper planning and sustaining progress. Objective testing and precise scientific measurement play a major role in accurately indicating a player's abilities (Kansal, 2021). Therefore, it is essential to utilize these tools to advance sports activities in general and in the sport of volleyball in particular.

Moreover, these tests and measurements, which are developed and standardized for specific communities, are sometimes not the optimal tools for measuring the abilities of individuals and athletes (McGuigan, 2017; Fukuda, 2019). Therefore, it is better to develop tests that align with the actual abilities of players during gameplay. It is essential to find tests and standards suitable for our players and their capabilities on the field to assist both the player and the coach in evaluating performance and diagnosing any weaknesses or deficiencies that may exist.

Football is a team sport that requires those in charge to study all its aspects, particularly the skill aspects, due to their importance for the football player. It is essential to develop these fundamental skills and link them to the players' physical attributes (Morris-Eyton & Roux, 2019).

Tests and measurements in team sports are among the most effective evaluation tools in motivating players to learn and train in an effort to help them reach the highest athletic levels (Williams, Lacy, 2018). The results indicate the player's performance level in a specific skill. The player's awareness of the level they have reached helps them reinforce successful responses and attempt to correct and avoid mistakes. It also contributes to comparing the player's progress with themselves or with other players. (Abu Zaid, 2007).

The current research is important in identifying the impact of certain physical tests on the performance of fundamental skills tests for young football players in the academies of Mosul City.

Research Problem

Various tests and measurements are used in physical education and sports sciences in general to assess different aspects of motor, skill, tactical, or psychological performance. These tests and measurements are typically constructed for a specific sample and cannot be applied to samples other than the one on which they were developed.

The research problem for the researchers focuses on answering the following question: Do the results of physical tests affect the results of skill tests, and what is the level of this impact based on contribution ratios and the prediction of skill test results as determined by several physical tests for young football players in the academies of Mosul city?

Research Objectives

The current research aims to: Establish predictive equations for skill tests based on several physical tests for young football players in the Mosul city academies.

METHODS

The researchers used the descriptive correlational method due to its suitability for the nature of the research problem.

Population and Sample of Study

The research population consisted of young football players from the Nineveh Academies participating in the Nineveh Academies Football Union competitions, aged 16 to 19 years, for the 2023/2024 sports season. The total number of players is 170, representing 10 academies. The research sample consisted of young players totaling (96), after excluding the sample for the pilot study, reliability, and absent players, who numbered (74). Thus, the research sample represented (56.47%) of the total research population. Table (1) shows the research population and its sample.

Table 1. Distribution of the total research population and sample

No.	Academies	Total population	Total sample	Excluded	%
1	Degla	16	8	8	
2	Al-Tahrir	18	12	6	
3	Al-Aneg	15	8	7	
4	Al-Sharjah	17	4	13	
5	An Numaniyah	15	10	5	
6	Al-Olympic	18	14	4	
7	Mosul Club	23	21	2	
8	Al-Za'eem	14	6	8	
9	Al-Sukar	18	8	10	
10	Al-Quds	16	5	11	
	Total	170	96	74	56.47

Table 2. Details of the research sample

Sample	No.	%
Main sample	96	%56.47
Reliability	20	%11.76
Pilot experiment	10	%5.89
Excluded	44	%25.89
Total	170	%100

Data and Information Collection Methods

To obtain results that serve the researcher, the researcher utilized several data collection methods: questionnaires, skill tests, and physical tests. The researchers prepared a questionnaire form to gather the opinions of experts and specialists in measurement and evaluation to identify the validity of the skill tests, which included 4 specific skill tests, and the physical tests, which included 5 tests. After distributing the questionnaires to the experts and specialists and collecting and analyzing the responses, this process resulted in the acceptance of the skill and physical tests, as shown in Table 3. This will also be clarified in terms of face validity. The researchers identified 4 skill tests to measure the fundamental skills of football players, as well as 5 physical tests to present them to the experts and specialists. These tests are:

Table 3. Selected Fundamental Skills and Physical Attributes Along with Their Corresponding Tests

No.	Skills and Physical Attributes	Tests
1	Dribbling	Dribbling the ball around five cones using the Barrow method.
2	Passing	Passing a ground ball from a dribbling onto a divided platform.
3	Trapping	Trapping the dribbling ball within a circle.
4	Shooting	Shooting with the foot from stationary balls across five sections.
5	Sprint Speed	20-meter sprint from a standing start.
6	Flexibility	Bent trunk forward from a standing position
7	Explosive Strength of the Legs	Standing broad jump.
8	Speed Endurance	80-meter sprint from a standing start.
9	Agility	Zigzag sprint using the Barrow method.

Psychometric Properties of the Specified Physical and Skill Tests

The researcher must present the tests to specialists to establish face validity by obtaining their approval on the accuracy of these tests. Specialists are asked to provide their opinions on the tests, relying on logical thinking, also known as critical thinking, and personal experience (Radwan, 2006). The researcher accomplished this by presenting the tests to specialists and making minor adjustments based on their feedback. The researchers presented the previous physical and skill tests to the experts and specialists, obtaining their approval before applying them to the current study sample. The researchers relied on a 75% approval rate from experts' and specialists' opinions to adopt each test. As a result of this process, all physical and skill tests received approval rates ranging from (80%) to (100%). This confirms that the researchers have established the face validity of the tests.

The researchers determined reliability through the test-retest method, which involves administering the same test twice in the same format (Milhem, 2005). The tests were administered to (20) players representing the reliability sample. Then, the physical and skill tests were reapplied to the same individuals after a set period. The reliability coefficient was calculated by determining Pearson's simple correlation coefficient between the scores of the first and second administrations. Table (4) shows the reliability coefficients for the physical and skill tests.

Table 4. Reliability Coefficients for the Skill and Physical Tests

No.	Tests	Reliability Coefficients	Sig.
1	Dribbling the ball around five cones using the Barrow method.	0.832	0.001
2	Passing a ground ball from a dribbling onto a divided platform.	0.843	0.001
3	Trapping the dribbling ball within a circle.	0.829	0.001
4	Shooting with foot from stationary balls across five sections.	0.870	0.001
5	20-meters sprint from a standing start.	0.887	0.001
6	Bent trunk forward from a standing position	0.862	0.001
7	Standing broad jump.	0.804	0.001
8	80-meter sprint from a standing start.	0.797	0.001
9	Zigzag sprint using the Barrow method.	0.847	0.001

*Significant at a significance level of (0.05).

After establishing the face validity of the specified physical and skill tests, the researchers conducted an initial pilot administration with a reliability sample of (10) young players from the research population. This aimed to assess the players' ability to perform the tests, evaluate the feasibility of measurement by the researcher, and train the team on test application and result recording. This pilot experiment resulted in the following:

1. The test is suitable for the players' skill level.
2. Players' ability to perform the tests effectively.

3. Specification of test locations and score divisions.
4. Training the team on test administration and recording results.

After the researchers completed the physical and skill tests in their final form and obtained the psychometric properties for these tests. They applied the tests to the main sample of the research, which consisted of (96) players from (February 18, 2024, to March 28, 2024). The following points were considered during the application of the tests: 1) Application of the Tests: The tests are conducted after the players have completed adequate warm-up exercises during training sessions under the coach's supervision; 2) Rest Periods Between Tests: Rest periods are provide between tests to ensure the player returns to their normal state before starting the next test. The researchers used various methods to calculate study parameters such as arithmetic mean (AM), standard deviation (SD), percentage (%), coefficient of Skewness, mode, multiple regression analysis, and Pearson Correlation Coefficient using the SPSS program.

RESULTS AND DISCUSSION

RESULTS

The results for physical and skill tests used in the research: After the researchers applied the physical and skill tests to the main sample of the study, they extracted the statistical parameters as shown in Table (5).

Table 5. Statistical parameters of physical and skill tests

No	Tests	AM	SD	Mode	Skewness	Results
1	Dribbling the ball around five cones using the Barrow method.	8.03	0.67	8.50	0.70	Natural positive
2	Passing a ground ball from a dribbling onto a divided platform.	19.04	3.16	19	0.012	Natural positive
3	Trapping the dribbling ball within a circle.	14.40	1.62	15	-0.37	Natural negative
4	Shooting with foot from stationary balls across five sections.	24.88	4.56	22	0.63	Natural positive
5	20-meters sprint from a standing start.	3.67	0.27	3.50	-0.62	Natural negative
6	Bent trunk forward from a standing position	5.80	4.11	7	-0.29	Natural negative
7	Standing broad jump.	1.91	0.18	2	-0.5	Natural negative
8	80-meter sprint from a standing start.	10.42	1.47	9.90	-0.35	Natural negative
9	Zigzag sprint using the Barrow method.	5.50	0.30	5.75	0.83	Natural positive

It is evident from Table (5) that the skewness coefficient for the physical and skill tests falls within the range of (± 1), indicating the suitability of the tests for the sample level and the potential to generalize the results in the future to similar samples. "The skewness coefficient is considered acceptable and highly logical if it ranges between (± 1)" (Al-Tikriti & Al-Obeidi, 1999). Subsequently, the researchers aimed to achieve the study's objectives by deriving predictive equations for the skill tests based on the physical tests. The results of the contribution ratios of physical tests to the dribbling test around five cones using the Barrow method: The researchers extracted the contribution ratios of physical tests to the performance of the dribbling test around five cones using the Barrow method, as shown in Table (6).

Table 6. Contribution ratios of physical tests to the dribbling test around five cones using the Barrow method

Method	Physical variables	Stable No.	Coefficient	calculated F	Sig.	Pearson Correlation Coefficient	Determination Coefficient
Multiple regression	20-meter sprint from a standing start.		0.586				
	Bent trunk forward from a standing position		-0.044				
	Standing broad jump.	4.380	0.232	7.884	0.001	0.554	0.307
	80-meter sprint from a standing start.		-0.155				
	Zigzag sprint using the Barrow method.		0.559				

* Significant at a significance level of (0.05).

It is evident from Table (6) that when using the method of multiple regressions by including all physical variables with the dribbling test around (5) cones using the Barrow method, the contribution ratio reached (30.7%). While the calculated F value was (7.884) with a significance level of (0.001), which is statistically significant. This allows us to derive the following predictive equation for the dribbling skill based on the physical variables: Dribbling Skill = 4.380 + 0.586 (20m Sprint from a Standing Position) + (-0.044) (Bent Trunk Forward from a Standing Position) + 0.232 (Broad Jump from a Standing Position) + (- 0.155) (80m Sprint from a Standing Position) + 0.559 (Zigzag sprint using the Barrow Method). The results of the contribution ratios of physical tests to the ground passing ball test from dribbling onto a Divided Platform: The researchers extracted the contribution ratios of physical tests to the performance of the ground pass from the dribbling on a divided platform, as shown in Table (7).

Table 7. Contribution ratios of physical tests to the ground pass test from dribbling on a Divided Platform

Method	Physical variables	Physical variable	Stable No.	calculated F	Sig.	Pearson Correlation Coefficient	Determination Coefficient
Multiple regressions	20-meter sprint from a standing start.		-0.435				
	Bent trunk forward from a standing position		-0.071				
	Standing broad jump.	17.995	3.237	2.461	0.039	0.349	0.121
	80-meter sprint from a standing start.		-0.588				
	Zigzag sprint using the Barrow method.		0.650				

It can be seen from Table (7) that when using the method of multiple regressions by including all physical variables with the test of passing a ground ball from dribbling on a divided platform, the contribution ratio value reached (12.1%). While the calculated F value was (2.461) with a significance of (0.039), which is a significant value. This allows us to derive the following predictive equation for the passing skill based on the physical variables: 1) Passing Skill = 17.995 + (- 0.435) (20m sprint from standing) + (-0.071 Bent Trunk Forward from a Standing Position) + 3.237 (broad jump from standing) + (- 0.588) (80m sprint from standing) + 0.650 (zigzag sprint in the Barrow method). The results of the contribution ratios of physical tests to the trapping test of the dribbling ball within a circle: The researchers extracted the contribution ratios of the

physical tests to the performance of the test of trapping the dribbling ball within a circle, as shown in Table (8).

Table 8. Contribution ratios of physical tests to the trapping test of the dribbling ball within a circle

Method	Physical variables	Physical variable	Stable No.	calculated F	Sig.	Pearson Correlation Coefficient	Determination Coefficient
Multiple regressions	20-meter sprint from a standing start.		-1.190				
	Bent trunk forward from a standing position		-0.010				
	Standing broad jump.	21.072	-0.031	0.963	0.445	0.226	0.051
	80-meter sprint from a standing start.		-0.004				
	Zigzag sprint using the Barrow method.		-0.388				

It is evident from Table (8) that, when using the multiple regressions method by incorporating all physical variables with the Trapping of the Dribbling Ball within a Circle test, the contribution ratio was (5.1%), with a calculated F-value of (0.963) and a significance level of (0.445), which is non-significant. Therefore, the researchers refrained from deriving a prediction equation. The results of the contribution ratios of physical tests to the shooting with the foot from stationary Balls test: The researchers extracted the contribution ratios of the physical tests to the performance of the shooting with the foot from the stationary balls test, as shown in Table (9).

Table 9. Contribution ratios of physical tests to the shooting with foot from stationary balls test

Method	Physical variables	Physical variable	Stable No.	calculated F	Sig.	Pearson Correlation Coefficient	Determination Coefficient
Multiple regressions	20-meter sprint from a standing start.		-3.264				
	Bent trunk forward from a standing position		-0.113				
	Standing broad jump.	26.175	6.016	2.406	0.043	0.345	0.119
	80-meter sprint from a standing start.		0.051				
	Zigzag sprint using the Barrow method.		-0.131				

It is evident from Table (9) that when using the method of multiple regressions by entering all physical variables with the shooting test from stationary balls, the contribution ratio was (11.9%). While the calculated F value was (2.406) with a significance level of (0.043), which is a significant value. This allows us to derive the following prediction equation for the shooting skill based on the physical variables: 1) Shooting Skill = 26.175 +(- 3.264) (Running 20m from a Standing Position) +(- 0.113) (Bent Trunk Forward from a Standing Position) + 6.016 (Broad Jump from a Standing Position) + 0.051 (Running 80m from a Standing Position) +(- 0.131) (zigzag sprint in the Barrow method).

DISCUSSION

The physical tests used in the research contributed significantly to the results of the dribbling skill test, which underscores the importance of physical tests in assessing the dribbling skills of young football players in the academies of Mosul City. These results are consistent with the study's findings (Hardinata et al., 2023; Herdianto et al., 2021) that education and training positively improve dribbling skills.

There is a contribution ratio of the physical tests used in the research to the results of the passing skill test, which emphasizes the importance of the physical tests used in the performance of the passing skill for young football players in the academies of Mosul City. The physical tests used in the research contributed significantly to the shooting skill test results, confirming their importance in assessing shooting skills among young football players in the Mosul City academies. The study results by (Raaiyatini et al., 2024) confirm that the education and training applied to learners enhance their athletic performance. However, the results show that there is no contribution ratio of the physical tests used in the research to the results of the trapping skill test, indicating that the physical tests used in the performance of the trapping skill are not crucial for young football players in the academies of Mosul City.

Continuous training improves players' athletic performance and enhances their self-confidence, which contributes positively to raising their level of performance. Some studies conducted on different categories and trainings showed the positive role of these trainings or practices on their athletic performance (Kuswoyo, et al., 2023; Prakarsa, 2020).

In addition, the researcher prediction the equations for fundamental skills were developed based on physical tests for young football academy players, as follows:

1. Bent Trunk Forward from a Standing Position + 3.237 Standing Broad Jump + (-0.588) sprint (80m) from Standing + 0.650 Zigzag sprint (Barrow method).
2. Shooting Skill = 26.175 + (-3.264) Sprint (20m) from Standing + (-0.113) Bent Trunk Forward from Standing Position + 6.016 Standing Broad Jump + 0.051 Sprint (80m) from Standing + (-0.131) Zigzag Sprint (Barrow method).
3. Dribbling Skill = 4.380 + 0.586 Sprint (20m) from Standing + (-0.044) Bent Trunk Forward from Standing Position + 0.232 Standing Broad Jump + (-0.155) Sprint (80m) from Standing + 0.559 Zigzag Sprint (Barrow method).
4. Passing Skill = 17.995 + (-0.435) sprint (20m) from Standing + 0.07

CONCLUSION

The researchers concluded that the physical tests directly impact the results of the dribbling skill test among young players in the Mosul City academies. They also directly impact the passing and shooting skill test results among young players in the Mosul City academies. However, the physical tests do not impact the results of the trapping skill test among young players in the Mosul City academies. The researchers recommend that physical tests be conducted for players that contribute to improving the performance of student-athletes.

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Implementation of A Volleyball Training Program through A Positive Youth Development Approach

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ABSTRACT

Volleyball is a sport that contributes greatly to physical activity in society and has an important role in the positive growth of youth. Sport not only improves physical abilities but also builds the character of athletes. However, most sports training programs currently concentrate on achieving competitive results and neglect forming positive values. Character development through sport is the main focus of the Positive Youth Development (PYD) approach. With the 7Cs approach that includes competence, confidence, connection, character, caring, contribution, and creativity, it is hoped that training programs can create individuals who excel in technical aspects and have positive athlete character. This study aims to determine how the character of athletes in the volleyball sport of the ANP Garut Volleyball Club is influenced by the application of the volleyball training program with the Positive Youth Development (PYD) approach. The method used in this research is a quantitative method with a pseudo-experiment, namely the Non-Equivalent Control Group with a Pretest-Posttest approach. In this study, 20 volleyball athletes from the ANP Volleyball club in Garut Regency were selected as research samples. The research instrument used a PYD-based questionnaire consisting of 49 items. Athletes are given an instrument about positive youth development 7Cs as a measuring tool. Data analysis was carried out using statistical tests with spss version 28 to process data and determine differences in pretest and posttest results. The results showed that the volleyball training program through the Positive Youth Development program approach had a significant effect between the group that followed the PYD 7Cs-based training program and the group that was not given the PYD 7Cs program, where the experimental group showed a better improvement in the aspects of technical skills and character.

Keywords: Volleyball; Upper Passing; Lower Passing; Positive Youth Development (PYD)

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- B) Acquisition of data;
- C) Analysis and interpretation of data;
- D) Manuscript preparation;
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INTRODUCTION

Youth development in sports is an important concern for many countries, including Indonesia. Sport can influence a person's social and personal development (Hambali et al., 2022), one of which is providing adolescents with significant developmental experiences (de Almería España Escartí, 2010). Basically, PYD is a developmental concept that considers strengths, as children

and adolescents are believed to have the resources to develop themselves based on the problems they solve (Lerner et al., 2005). Therefore, the concept of PYD has been widely applied to examine the involvement of children and adolescents in various sports program activities. (Holt et al., 2017). The implementation of PYD in training programs can significantly influence the positive character traits of youth (Kochanek, 2019). Currently, most sports training programs concentrate on physical improvement and competitive performance. The development of positive values and character building is often neglected. However, this method is very important to address problems around the world, especially when many teenagers are involved in negative behaviors such as juvenile delinquency and lack of social concern. Volleyball is one sport that has great potential to help children's character growth. In addition to training physical skills, volleyball teaches values such as cooperation, discipline, commitment, and other values that support positive character-building (Juhrocin, 2023). However, as seen in the ANP Volleyball Club of Garut Regency based on observations, it was found that the limited development of sports programs designed to produce a positive impact on the development of the younger generation is still a major obstacle. Programs aimed at enhancing the 7Cs of PYD, such as competence, confidence, connection, character, caring, contribution, and creativity, are still lacking in their application. Furthermore, coaches do not integrate positive values into training sessions, resulting in often suboptimal outcomes in developing athletes' potential in the positive youth development aspects of the training program.

The 7Cs method can be used in volleyball training to balance the physical and non-physical development of participants. Therefore, volleyball training can be an effective tool for healthy personal development. The development of volleyball not only teaches technical sports skills but also serves as a means of moral education and personality development (Mochamad Syafei, 2024). Training programs form the foundation of an individual's success and achievements in engaging in sports activities. The program is a measured and planned application that uses fitness elements as test parameters (Ahdan et al., 2021). The volleyball training program based on the Positive Youth Development (PYD) approach and using basic volleyball techniques, underhand and overhand passing, offers an innovative approach to improving technical skills and fostering positive character in participants. This approach is intended to enhance participants' technical skills as well as support their character development (Juhrocin et al., 2023). Here are the main aspects implemented in the 7Cs-based program; (1) Competence, Training includes the development of technical skills such as passing, serving, blocking, and game strategies. The program is structured in stages to ensure mastery of basic to advanced techniques, (2) Self-Confidence, Participants are encouraged to boost their self-confidence through individual and team achievements. Small successes are appreciated to boost motivation (3) Social Connections, The importance of teamwork and positive relationships between participants, coaches, and the community is emphasized through activities such as group games and post-training discussions. (4) Karakter, termasuk nilai-nilai seperti sportivitas, tanggung jawab, dan integritas diajarkan. Participants are trained to respect the rules of the game and to be fair to both teammates and opponents, (5) Care, Participants are encouraged to show empathy towards fellow team members. Social activities outside of training, such as helping the local community, are also part of the program, and (6) Contribution, Participants are given an active role in the exercise, such as being a team captain or assisting the coach in devising strategies. This gives practical experience in making a real contribution, (7) Creativity, participants are encouraged to meet challenges with creativity, both in trying new techniques and in facing stronger opponents. Mental exercises such as match simulations are used to build this creativity.

This research is very important because it aims to examine the implementation of volleyball training programs at ANP Club Garut Regency through a positive youth development approach.

So that coaches can explore how the PYD approach can be applied in volleyball training to develop participants' positive values and improve their overall skills. Through this research, it is hoped that training programs can provide guidance for coaches and sports organizers to create programs that focus on technical skills and character building simultaneously. The implementation of the PYD approach in volleyball training programs allows for the balanced development of participants' physical and non-physical aspects, so that they become not only competitive athletes but also people with positive values. The utilization of the 7Cs approach in volleyball training has the potential to develop both physical and non-physical aspects of the youth. Therefore, the volleyball training program can be a healthy and beneficial means of personal development for youth. Volleyball training not only teaches technical sports skills, but also teaches morality and personality development (Juhrobin et al., 2023). Previous research has shown that sport can be a means of developing adolescent character through the Positive Youth Development (PYD) approach (PYD) (Hambali et al., 2022). However, most of these studies are still general in nature and not many have examined the direct application of 7Cs elements, such as creativity and contribution, in volleyball training programs. In addition, research integrating character building and technical skill enhancement in the context of local clubs, particularly in Indonesia, is also limited. The update of this research lies in the specific integration of Positive Youth Development (PYD) 7Cs elements into volleyball training programs, which has not been previously studied in depth in the local sports context, especially at the club level in Indonesia. This research offers a holistic approach that combines character building, such as creativity and contribution, with technical skill enhancement. In addition, this study also quantitatively evaluates the impact of the 7Cs approach on the physical and non-physical development of young athletes, providing a framework that can be applied directly by coaches and sports institutions to improve the effectiveness of training programs in the ANP Volleyball Club of Garut Regency.

Positive Youth Development is a positive outlook and action towards the lives of adolescents. During its development, PYD noted that what characterizes PYD and developing youth is involvement in education, which benefits society and improves general well-being (Dillard et al., 2019). The goal of PYD development is the corresponding desire to achieve something that is at once meaningful and beneficial to oneself and of intended consequence to the world beyond oneself (BM Burkhard, 2020). Systematic reviews have evaluated the relationship between sport participation and outcomes associated with PYD, by conducting a systematic review of the literature examining the psychological and social health benefits of participation in sport by children and adolescents. The majority of studies identified at the time were quantitative and cross-sectional with most studies showing that positive psychosocial outcomes were associated with sport participation. As a result of their review, the authors foregrounded health through a conceptual model of sport. This model describes the relationship between physical, psychological, and social domains and their positive associations with sport participation (Bruner, 2023). Three categories were identified in a model through inductive meta-data analysis: (1) PYD climate - focusing on positive and supportive relationships with adults (leaders/coaches), peers, and parental involvement; (2) Life Skills Program - focusing on activities that build life skills and transfer; and (3) PYD outcomes - in personal, social, and physical domains. Based on the outcomes and models, distinctions are made between learning (Holt et al., 2017). This research is expected to make important contributions both in theory and practice. Theoretically, this research adds insight into the application of the Positive Youth Development (PYD) approach in sport, specifically volleyball. It shows how the 7Cs elements can help shape athletes' character while improving their technical abilities. Practically, the results of this study can serve as a guide for coaches, sports clubs, and related institutions in creating more effective training programs. The program should not only aim to improve playing skills, but also build

positive character traits such as cooperation, self-confidence and creativity. That way, this research can support the creation of a generation of athletes who not only excel on the field, but also have a good impact on the surrounding environment.

METHODS

The type of research

The research method used is a quantitative research method with a pseudo-experiment, namely the Non-Equivalent Control Group with a Pretest-Posttest approach (Sugiyono, 2015).

Table 1. Nonequivalent Control Group Design

Group	Pretest	Treatment (X)	Posttest
Eksperimen	O1	X	O2
Control	O3	—	O4

(Sourcer: Sugiyono 2015: 116)

Description:

- **O1:** Pretest in the experimental group
- **O2:** Posttest in the experimental group
- **O3:** Pretest in the control group
- **O4:** Posttest in the control group
- **X :** Treatment or intervention given to the experimental group

The time and location

The research was conducted in December 2024-February 2025, with a total of 16x meetings. The research location was the ANP Volleyball Club on Jalan Simpang Samarang, Kec. Bayongbong, Garut Regency, West Java.

The goals or target

The purpose of this study was to see how the positive youth development approach can be applied in the volleyball training program at ANP Club Garut. The target of this research is to provide an opportunity for coaches to learn how the PYD approach can be applied to volleyball training by instilling positive values to athletes and improving their overall skills.

This research sample uses a purpose sampling technique, which is a sampling technique used when the researcher already has a target individual with characteristics that match the research (Lenaini & Artikel, 2021). The criteria needed in this study are; (1) Volleyball athletes aged 17-20 years, (2) Athletes who have participated in volleyball training for at least 3 months, (3) Players who are in good physical condition, do not have significant injuries that could hinder participation in training or research programs.

Instrument

In this study, the authors used the PYD 7Cs instrument questionnaire. This study used a closed questionnaire, which gave participants the opportunity to choose one of the two available answer options. The instrument applied in this study is the result of the researcher's analysis from the aspects of (1) adopting the 7Cs instrument, (2) adapting the instrument to the phenomenon of positive youth development, (3) The validity of the instrument is above 0.50 in each component of PYD 7Cs. Questionnaire analysis using Likert scale (Wium et al., n.d.).

Data collection techniques

The data collection technique used by researchers in this study is through questionnaires, Questionnaires will be used to collect data from respondents, both from the experimental group and the control group at the time of the pretest and posttest (Fernandes, 2022).

Data analysis techniques

The data was processed and evaluated using the Shapiro-Wilk normality test. Furthermore, the data homogeneity test was carried out to determine whether the data in the experimental class and control class had the same variance or not using the SPSS 28 statistical application. After conducting the data homogeneity test, it was continued by conducting an average significance test which aims to determine the average results of the initial test (pretest) and the final test (posttest) (Muhson, 2006), then an independent sample t-test was conducted to determine the difference between the results of the initial test (pretest) and the final test (posttest) in the experimental class and control class.

Research procedures

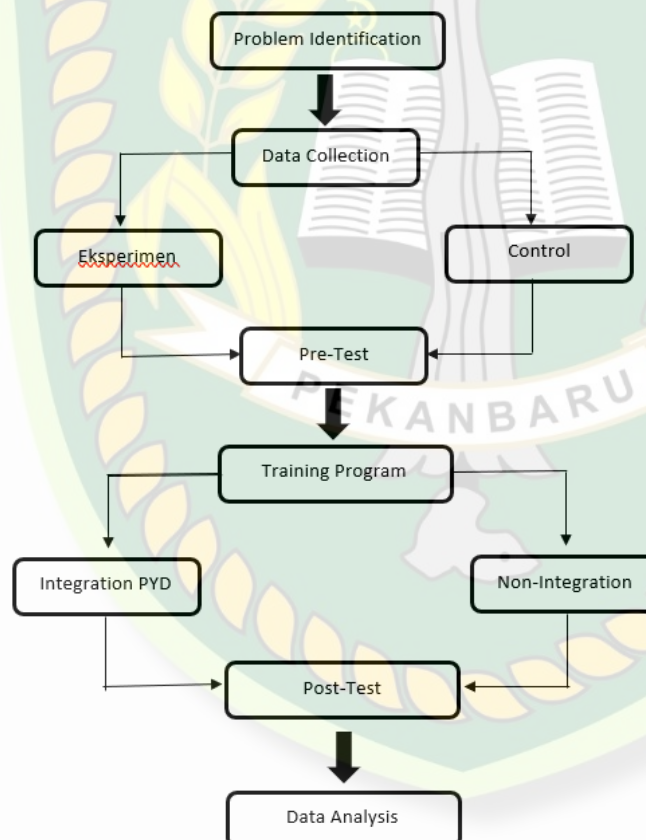


Figure 1. Research Procedure

RESULTS AND DISCUSSION

Findings

This study begins with giving an initial test (pretest) to measure how far athletes understand PYD 7Cs before being given a treatment or training program based on PYD 7Cs for the experimental group and a volleyball training program for the control group. The meeting was held for 16 meetings, after all meetings in the experimental and control groups were completed,

the meal would be given a final test (post-test) to obtain the data to be found. The results of this study include normality test with Shapiro-Wilk, homogeneity test and independent sample t-test. There are descriptive statistics that describe the number of samples of each test, the range of pretest posttest results, the lowest test result value, the highest test result value, the total value of the results of each test, the average test result value and the standard deviation of the test results. The following are the results of descriptive statistical tests using SPSS 25. Can be seen in Table 2.

Table 2. Descriptive statistics

	N	Range	Minimum	Maximum	Sum	Mean	Std.Deviation
Pre-Test Eksperimen	10	15	155	170	1622	162,2	4,917
Post-Test Eksperimen	10	16	167	183	1760	176,0	4,898
Pre-Test Control	10	23	148	171	1620	162,0	7,333
Post-Test Control	10	29	146	174	1621	162,1	8,646
Valid N (listwise)	10						

The data normality test is carried out to determine whether the data is normally distributed or not. The normality test used in this study uses the Shapiro-Wilk test. Data can be said to be normally distributed if the significance value (sig.) > 0.05. The normality test uses the Saphiro-Wilk Test. This test was chosen because the number of samples in the study was small. The following are the results of the Shapiro-Wilk normality test using SPSS 28 can be seen in Table 3.

Table 3. Shapiro-Wilk Normality Test

		Class	Statistic	df.	Sig
Training PYD 7Cs	Progam	Pre-Test Eksperimen	0,904	10	0,243
		Post-Test Eksperimen	0,973	10	0,921
		Pre-Test Control	0,949	10	0,662
		Post-Test Control	0,964	10	0,827

Based on Table 4, it is known that the significance value of the normality test in the experimental and control groups using the Shapiro-Wilk Test is (sig.) > 0.05, it can be concluded that the pre-test and posttest data in both groups are normally distributed. Thus, the normality requirement has been met.

Table 4. Test of homogeneity

		Levene			
		Statistic	df1	df2	Sig.
Pre-Test	Based on Mean	1,380	1	18	0,255
	Based on Median	1,427	1	18	0,248
	Based on Median and With adjusted df	1,427	1	17,3	0,248
	Based on trimmed mean	1,382	1	18	0,255
Post-Test	Based on Mean	2,085	1	18	0,166
	Based on Median	2,000	1	18	0,174
	Based on Median and With adjusted df	2,000	1	13,8	0,179
	Based on trimmed mean	2,197	1	18	0,156

The homogeneity test aims to determine whether or not the variance of the pretest and posttest data between the experimental and control groups is the same. To conduct a homogeneity test, use the Levene Test. Data is homogeneous if the significance value (sig.) > 0.05.

Table 5. Mean values between groups

	Group	N	Mean	Std. Deviation
Result	Ekperimen	10	13,8000	2,57337
	Control	10	0,1000	3,51030

The table above shows a comparison of the mean values between the two groups, namely the experimental group and the control group. The results of the average calculation show that the experimental group has a mean value of 13.8000, while the control group is only 0.1000. This striking difference shows that the experimental group has much higher results than the control group. In addition, the standard deviation value in the experimental group is 2.57337, while in the control group it is greater, which is 3.51030.

Table 6 Independent T-test

Levene's Test for Equality of Variances		T-test for Equality of Means							
		Significance				95% Confidence Interval of the Difference			
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	
Results	Equal variances assumed	0,025	0,876	9,954	18	<0,001	<0,001	13,70000	10,80832
	Equal variances not assumed			9,954	16,506	<0,001	<0,001	13,70000	10,78944

The value of Sig. (0.876) < 0.001 indicates that there is a significant difference between the two experimental and control groups, while the high t-value (9.954) indicates that the mean difference between the experimental and control groups is highly significant. The smaller the Sig. value and the larger the t value, the stronger the evidence that there is a real difference between the two groups.

DISCUSSION

Based on the data, the experimental group had an average value of 13.8000 with a standard deviation of 2.57337, while the control group had an average value of 0.1000 with a standard deviation of 3.51030. This significant difference between the two groups indicates that the exercise program applied to the experimental group had a greater positive impact than the control group. The significantly higher mean score in the experimental group indicates that the Positive Youth Development (PYD) 7Cs-based intervention in volleyball training contributed effectively to the improvement of participants' skills and psychosocial aspects. Meanwhile, the smaller standard deviation in the experimental group indicates lower variability in the results, signaling that most participants in this group experienced relatively consistent improvements compared to the control group. These results reinforce the argument that the implementation of the PYD approach in volleyball training programs can have a significant positive impact on player development, both in terms of skills and character.

This research produces descriptive data that describes the application of Positive Youth Development (PYD) 7Cs, namely Competence, Confidence, Connection, Character, Caring, Contribution, and Creativity in the volleyball training program. From the analysis, there are several components that show the highest value in the measurement. The component with the highest score was Connection, with an average score of 29.0, followed by Character, with an average score of 27.3. The high value of Connection indicates that the volleyball training program is able to build strong social relationships between players, including teamwork, peer support,

and positive interactions with the coach and training environment. Meanwhile, Character, which also has a high value, indicates that volleyball training plays a role in shaping the athlete's personality, such as sportsmanship, discipline, responsibility, and an unyielding attitude in practicing and competing. These results prove that the Connection and Character components can be effectively integrated in volleyball training programs. With a conducive training environment and a PYD 7Cs-based approach, players not only experience improved technical skills, but also experience development in social and character aspects, which are essential for the holistic development of young athletes. The components with the highest scores in the control group were creativity with a mean score of 27.0 and connection with a mean score of 26.9. Although these scores indicate that athletes in the control group still have fairly good aspects of social connectedness and character, they are still lower than the experimental group who experienced significant improvement after participating in the PYD 7Cs-based training program. This research needs to be continued thoroughly through a volleyball program with the integration of Positive Youth Development (PYD) 7Cs development. Currently, the research only focuses on lower passing and upper passing techniques, so to gain a more comprehensive understanding of the application of PYD 7Cs in volleyball training, further research is needed that includes smash, serve, and block techniques. Thus, future research can provide greater insight into how the PYD 7Cs approach contributes to the development of various technical skills in the sport of volleyball.

The results of this study are in line with previous research which states that volleyball training can help develop life skills within the PYD framework. The main focus of previous research was on the development of social skills such as leadership, teamwork, and decision-making (Juhrocin, 2023). Sport can help develop adolescents' social, emotional and moral skills. It also discusses how factors such as the training environment, the role of the coach, and the approach used in sport can positively influence youth development, and emphasizes that sport designed with a youth development approach can help improve leadership skills, decision-making, teamwork, and a sense of responsibility in young athletes (Hambali et al., 2022). This research suggests that sport can play a role in the development of life skills, including leadership, discipline, cooperation and communication skills. Sports training programs designed with a PYD approach can help improve players' social and emotional skills, so they are better prepared to face challenges in everyday life. A sports training program designed with a PYD approach can help improve players' social and emotional skills, so they are better prepared to face challenges in everyday life. This research shows that a sports training program designed with a PYD approach can help improve players' social and emotional skills, so they are better prepared to face challenges in everyday life (Desanti, 2023). Volleyball training can help develop life skills such as leadership, teamwork, and decision-making. This study shows that volleyball training combined with social skills learning can help players develop not only physically but also mentally and socially (Yopi Kusdinar, 2022). Another study stated that a life skills program in aquatic activities through a PYD approach can contribute to adolescent character development. The study showed that participants who attended a life skills program in aquatic activities experienced significant improvements in teamwork, leadership, time management, social skills, and decision-making compared to the group that did not receive such training (a.sonjaya, 2024).

All of the above studies show that sport can be an effective means of developing character and social skills. All previous studies used PYD as the main approach, just like this study which integrates the 7Cs PYD model (Competence, Confidence, Connection, Character, Caring, Contribution, Creativity) in volleyball training. Although there are many links, this research still has differences that make it a renewal compared to previous research. This study is more specific in analyzing the PYD 7Cs approach to lower passing and upper passing techniques in volleyball. In addition, it is more comprehensive by applying all 7Cs elements in the context of volleyball

training. This research continues previous studies with a more specific focus on the implementation of PYD 7Cs in volleyball training, which has rarely been studied in depth before.

CONCLUSION

Based on the results of the study, it can be concluded that there is a significant effect of the implementation of the Positive Youth Development (PYD) 7Cs-based volleyball training program on the development of upper passing and lower passing skills in athletes at the ANP Volleyball club. In addition, there was a significant difference between the group that followed the PYD 7Cs-based training program and the group that did not follow it, where the experimental group showed better improvement in both technical skills and character aspects. The PYD 7Cs intervention to the volleyball upper passing and lower passing training program in the experimental group showed success in increasing the value of the PYD 7CS components with the order of the components being connection, character, creativity, competence, confidence, caring, and contribution compared to the value of the components in the control group against the assessment of the PYD 7Cs components namely creativity, character, connection, caring, confidence, contribution, and competence. So that the results of the study prove that the volleyball upper passing and lower passing training program is effective when integrated through the PYD 7Cs program.

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CONFLICT OF INTEREST

The authors of this study emphasize that there is no conflict of interest with any party in the conduct of this research, either financially, professionally, or personally. All results presented in this study are purely based on analysis and data that has been collected objectively.

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Synergy of Sports and Leadership: Community Soccer Impact on SDGs Achievement in Leo-Leo Village, Morotai Island

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ABSTRACT

Background: This research explores the phenomenon of community soccer in Leo-Leo Village, Pulau Rao District, Morotai Island Regency, and its impact on shaping young leaders who contribute to the achievement of the Sustainable Development Goals (SDGs). **Purpose:** The research focuses on two main questions: (1) how community soccer can serve as a means to shape young leaders, and (2) how soccer can be integrated with the Sustainable Development Goals (SDGs). This research is expected to provide in-depth insights into the experiences of individuals involved in community soccer in Leo-Leo Village, as well as its impact on leadership development and education. **Methods:** Using a phenomenological approach, this study gathers the experiences and perspectives of players, coaches, and community members to understand how participation in community soccer can develop leadership skills and social values relevant to sustainable development goals. **Results:** The results of the study indicate that community soccer serves as an essential platform for youth to learn about cooperation, discipline, and responsibility. Additionally, participation in these activities raises their awareness of social and environmental issues aligned with the SDGs, such as quality education and reducing inequalities. However, there are challenges such as limited facilities and lack of external support that hinder the development of this program. **Conclusion:** These findings are expected to provide insights for stakeholders in creating an environment that supports youth leadership development through community soccer in the context of the SDGs. **Implications and Recommendation:** This research recommends expanding collaboration between the government, non-governmental organizations, and the community to maximize the potential of soccer as a means of forming future leaders.

Keywords : community, leadership, SDGs, soccer, sports

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INTRODUCTION

Soccer is known as one of the most popular sports in the world, uniting millions of people from diverse cultural, economic, and social backgrounds. Its presence is not limited to recreation but also serves as a medium for creating social change and building character, particularly among young people (Tafaqur, 2022). In many communities, including Indonesia, soccer functions as an effective means for talent development, health improvement, and social education. In Pulau Morotai, specifically in Leo-Leo Rao Village, community soccer is not only organized for entertainment but also integrated with a broader social mission, namely educating future leaders.

In an increasingly uncertain global era, the Sustainable Development Goals (SDGs) have become essential to achieve. Launched by the United Nations (UN), the SDGs consist of 17 goals aimed at creating a better, sustainable, and inclusive world. One of the goals that is highly relevant to youth development is SDG 4, which emphasizes quality and inclusive education (Adesida, 2018). Thus, this research aims to explore how community soccer in Leo-Leo Rao Village contributes to shaping young leaders and supporting the achievement of SDGs, especially in the context of education.

Leo-Leo Village, located in Pulau Rao District, Pulau Morotai Regency, is known for its rich natural potential, including marine resources and cultural diversity. Despite having abundant resources, the village faces several challenges, including the lack of access to internet and mobile phone networks, and intermittent electricity supply provided by PLN every other day. This includes access to quality education, employment opportunities, and leadership development. Many youths in this village have talent in sports, particularly soccer, but still need more guidance and support to develop their potential.

In recent years, the community initiative to establish a local soccer league has been initiated by the Head of Leo-Leo Village to provide opportunities for youths to participate in positive activities. This league not only serves as a place for competition but also as a platform for learning and character development. Through these activities, young people learn about leadership values, cooperation, and discipline, all of which are crucial for achieving sustainable development goals.

Leadership can be defined as the ability to influence and manage others to achieve common goals. In the context of soccer, leadership emerges not only on the field but also in the character development of youth (Whales et al., 2024). Leaders on the field are those who not only possess technical skills but also the ability to motivate and guide other team members. They learn to make important decisions, relevant leadership in the real world.

Through community soccer, youths are taught to cooperate and contribute to the team. This dynamic teaches them how to be good leaders in a broader context, both in the community and in their future careers. The collaborative attitude built on the field positively impacts their interactions off the field, supporting greater engagement in local society and community.

Community soccer also has the potential to help children in terms of education. In this context, soccer is not only seen as a sport but also as a tool for delivering non-formal education. Through these activities, young people can be taught the importance of discipline, commitment, and hard work. Soccer programs integrated with education can serve as a way to introduce important values and create an environment that supports academic achievement (Figgins et al., 2024).

Therefore, soccer can create a bridge between formal and informal education, providing opportunities for young people to expand their knowledge horizons and acquire additional skills needed in the workforce. This is crucial given that many young people in remote villages, particularly in Leo-Leo Village, face limitations in access to quality formal education.

With this background, the research focuses on two main questions: (1) how community soccer can serve as a means to shape young leaders, and (2) how soccer can be integrated with the Sustainable Development Goals (SDGs). This research is expected to provide in-depth insights into the experiences of individuals involved in community soccer in Leo-Leo Village, as well as its impact on leadership development and education.

METHOD

The methodological framework employed in this research refers to the concept of phenomenology, which emphasizes a deep understanding of individual experiences and the meanings they ascribe within their social and cultural contexts. Through this approach, the research will explore how the youth in the village perceive their participation in soccer and how these experiences shape their views on leadership and their contributions to achieving the SDGs.

Participants

Purposive sampling was chosen as the method for selecting research respondents. The targets include 5 young players actively involved in community soccer, 1 coach and instructor facilitating the soccer program, and 1 organizer supporting and promoting the soccer activities.

Data Collection

Data were collected through several qualitative methods, including in-depth interviews: semi-structured interviews with participants, coaches, and organizers to explore their personal experiences with community soccer. The questions focused on how they perceive the impact of soccer on leadership skills, leadership opportunities created through soccer, and their views on the relationship between soccer and the achievement of SDGs in the community. Participant observation was also conducted during training sessions and matches to understand interactions, leadership dynamics, and team cooperation directly. This will capture the essence of the community soccer experience.

Data Analysis

Data analysis was performed through three procedures, which include: (1) Transcribing interviews and delving into the data to understand the main points conveyed; (2) Coding, identifying, and labeling key statements and themes that emerge from the data, which include themes such as "leadership development," "team cooperation," "community engagement," and "SDGs awareness."; (3) Theme Development and Validation, extracting core themes that highlight the shared experiences and insights of the respondents and involving the respondents in member checking to ensure that the findings accurately represent their experiences and understandings.

Ethical Considerations

Respondents were fully informed about the purpose, procedures, and their rights to withdraw at any time, and consent was obtained before data collection. The identities of participants will be protected, and the data will be anonymized to maintain confidentiality. Ensuring that the research is conducted carefully, respecting cultural values and individual perspectives.

RESULTS AND DISCUSSION

FINDINGS

This study aims to analyze the impact of community soccer in Leo-Leo Village, Morotai Island, on the achievement of Sustainable Development Goals (SDGs). It focuses on how soccer can serve as a platform to strengthen leadership among youth. Leo-Leo Village has implemented various community soccer programs that serve as a means to build confidence, cooperation, and a solid social system among village youth.

Community Soccer Activities

Community soccer in Leo-Leo Village is organized by local institutions in collaboration with the village and non-governmental organizations. Activities include regular training, inter-youth tournaments, and periodic events to raise funds from the community. Participation in these sports not only improves physical fitness but also encourages children and adolescents to engage in positive social dynamics.

Building Leadership

Improved Leadership Skills: Participants reported a significant increase in their leadership abilities. Many players who were appointed as team captains felt more confident in decision-making, both on and off the field. Learning through the experience of leading in match situations helped participants hone their skills, including the ability to motivate the team and handle pressure.

Enhanced Social Skills: Community soccer activities improved participants' social skills, such as communication and cooperation. They learned how to work together to achieve common goals within the team. **Conflict Resolution Skills:** Participants also reported improvements in their ability to resolve conflicts constructively, both on and off the field. The study results indicate a positive impact of community soccer on the achievement of SDGs in Leo-Leo Village, particularly in the goals of SDG 3 (Good Health and Well-being), SDG 4 (Quality Education), and SDG 5 (Gender Equality).

SDG 3: Good Health and Well-being

Improving Physical, Mental, and Emotional Health: Participation in community soccer in Leo-Leo Village has helped improve the physical health of participants. Interviews with players showed that their involvement led to increased stamina and overall health. Children involved in the program adopted active lifestyles and became more aware of the importance of maintaining good health. This activity also provided a solution to obesity issues among children. Beyond physical health, soccer had a positive impact on mental and emotional health. Players experienced increased self-confidence and happiness due to interaction with peers and a sense of togetherness. Focus group discussions revealed that many adolescents felt happier and more motivated after engaging in soccer activities.

SDG 4: Quality Education

Raising Awareness of the Importance of Education: The research shows that community soccer programs increase participants' awareness of the importance of education. Children involved in sports activities were more motivated to succeed in school, as they sought support from parents and coaches for their continued studies. Many participants expressed a desire to pursue further education after seeing examples of successful leaders in the world of sports. The study results indicate a positive synergy between education and sports. Students who are active in sports tend to have better discipline in their studies. Reports from teachers showed that

children involved in the soccer program demonstrated improved school attendance. They learned about the importance of preparation and hard work through competitive experiences.

SDG 5: Gender Equality

Empowering Women: Community soccer programs in Leo-Leo also had a significant impact on empowering women. The involvement of women in soccer teams created opportunities for them to showcase their skills and promote gender balance in social activities. Discussions revealed positive changes in the community's perception of women's roles. Participants involved in sports began to recognize the importance of active female participation in various fields, including within families and the community. This led to increased support from men for gender equality.

DISCUSSION

Community soccer organized in Leo-Leo Village demonstrates that sports can serve as a platform to create inclusive and productive social spaces. Community soccer not only facilitates physical activity but also acts as a tool to foster community solidarity (Hugaerts et al., 2021). Community soccer can explore other strategies to strengthen community engagement, such as adding sports-based education programs or inter-regional competitions. Participation in community soccer helps individuals develop leadership skills, such as decision-making, conflict resolution, and communication (Mccarroll & Mccarroll, 2024). The experience of leading on the field can translate into community leadership. Emphasizing the importance of mentoring by coaches to players serves as a cornerstone for developing the leadership of the players.

Community soccer programs have a positive impact on physical and emotional health, helping to combat obesity, improve fitness, and strengthen social bonds. Participation in these programs can serve as a model to promote healthy lifestyles in other villages (Lundvall & Fröberg, 2023). Community soccer programs in Leo-Leo Village raise awareness of the importance of education. Children involved in sports show better discipline, motivation, and school attendance. Sports can be a motivational tool to address dropout issues (Hambali et al., 2022). Players also consider the importance of involving teachers and coaches in developing integrated education and sports plans.

Community soccer functions not only as a sport but also as a learning platform. Bandura (1977) in his social learning theory states that individuals learn through observation and interaction with others. In the context of community soccer, youths learn about cooperation, discipline, and responsibility. This process helps them to form character and social skills that are highly needed in their personal and professional lives (Gündoğan, 2024).

This theoretical study shows that community soccer has tremendous potential to play a role in shaping young leaders and supporting the achievement of the SDGs in Leo-Leo Village. Based on relevant theories, it can be understood how the interaction in the context of sports can contribute to social learning, leadership development, and positive social change.

The involvement of women in community soccer programs in Leo-Leo Village shows the potential of sports in empowering women and changing societal views on gender equality (Bertho et al., 2024). It is important to create a supportive environment for women, such as gender-friendly facilities, female coaches, and campaigns to change social norms that limit women's roles in sports (Mikkonen, 2023). This research highlights the success of community soccer programs, but there are challenges to be addressed to expand its impact, such as limited resources, infrastructure, and women's participation. Innovative funding strategies, such as crowdfunding or sponsorship, and the importance of building local capacity for independent management are considered. The findings of this research confirm that sports like community soccer can be a strategic tool to achieve sustainable development goals (SDGs).

The concept of Sport for Development and Peace (SDP) is becoming increasingly popular as an approach to using sports to achieve sustainable development goals (Charway et al., 2023). The United Nations Office on Sport for Development and Peace (UNOSDP) indicates that sports can promote health, education, and social justice (Beutler, 2008). In the context of Leo-Leo Village, community soccer can be used to engage youth in efforts to achieve SDG 4 (Quality Education) and SDG 3 (Good Health and Well-being) in an interactive and engaging manner.

As an effort to expand the impact of these community soccer activities, regular forums have been established involving local institutions, village governments, and non-governmental organizations to share ideas, plan programs, and evaluate activities. These forums determine the responsibilities of each party, leading to better-organized activities. Integration of the program with local policies in Leo-Leo Village is currently being proposed to include community soccer in the village development plan, thus securing funding from the village budget. Additionally, the Leo-Leo village government helps provide adequate infrastructure to support the activities.

Although community soccer in Leo-Leo Village does not yet have a specific program name like other community sports programs, such as the Liga Desa Nusantara Program in Indonesia or the Kampung Bola program in Yogyakarta (Pollock, 2021), Leo-Leo Village can learn from these programs, especially in terms of management strategies, fundraising, and social impact development. Partnerships or experience exchanges with similar programs can be conducted to enhance the capacity of community soccer programs (Lindsey & Chapman, 2017; Okayasu et al., 2016).

Leadership skills acquired through sports, such as community soccer in Leo-Leo Village, have broad applications in various contexts. In education, decision-making skills trained through the role of a team captain can help students prioritize academic tasks and strategize study plans (Hugaerts et al., 2021). The experience of teamwork in sports encourages collaboration in group projects or extracurricular activities at school (Holopainen et al., 2023). Soccer team leaders who are accustomed to motivating team members can become role models in the school environment, motivating their peers to achieve common goals (Gosai et al., 2023).

In the workplace, the experience of resolving conflicts on the field helps individuals manage interpersonal conflicts in the workplace constructively (Jianhui & Rashid, 2020). Sports team leadership skills are directly relevant to managerial or leadership roles in companies. Through the experience of facing pressure during matches, individuals are better prepared to handle deadlines or stressful work situations (Larneby et al., 2024).

In village leadership, sports leaders who are used to listening to various opinions and uniting the team can apply these skills in facilitating discussions and decisions in the village. The ability to build team cohesion can be applied to mobilize the village community to achieve common goals, such as village development planning. Former leaders in sports can become role models for village youth, motivating them to actively engage in social and development activities (Adesida, 2018).

Youth leadership development is often influenced by various leadership theories. Transformational Leadership, as described by Bass (1985), emphasizes the importance of leaders who inspire and motivate followers to achieve common goals. In the context of community soccer, youths involved in these activities can learn to become transformational leaders by motivating their peers and building a better community through inclusive and value-based leadership (Holopainen et al., 2023).

The various impacts of community soccer programs in Leo-Leo Village can be integrated with health promotion activities. Discussions on the importance of mental health, given that soccer has proven to enhance emotional health (Lynch, 2016), and providing basic training on stress and pressure management can be included. The social change theory, primarily developed by Marx and Engels, explains that societies can change through conflict and collaboration.

Community soccer can serve as a mediator in social change, providing youths with a space to explore their roles in the community and contribute to positive change (Graf & Fleischhacker, 2023). Through participation in soccer, youths learn to tackle social challenges such as stunting and early marriage, as well as advocate for policies that support health and education.

The synergy between sports and education can be optimally utilized through a well-approached method that enhances discipline, as soccer activities train players in time management between training and school (Hugaerts et al., 2021). A structured schedule can help students adapt to good time management (Strittmatter et al., 2024). Soccer teaches values such as hard work, responsibility, and teamwork that can be applied in the school environment (Charway et al., 2023). Participation in sports improves physical health, which in turn helps enhance students' concentration and learning performance at school (Annesi et al., 2023). Physical activity also helps reduce stress and anxiety, thus creating a better learning environment (Lundvall & Fröberg, 2023). With the active role of coaches in character education, community soccer programs can become platforms that not only improve sports skills but also shape the personalities of outstanding students (Meir, 2024). Community-based development is an approach that emphasizes community involvement in the planning and implementation of programs. Community Development Theory underscores the importance of community participation not only in the execution but also in decision-making. In the context of soccer, communities involved in soccer programs can feel ownership of the initiative, enhancing participation and support from community members (Glibo & Koenigstorfer, 2023).

CONCLUSION

Community soccer in Leo-Leo Village, Morotai Island, serves as an effective tool in building youth leadership and supporting the achievement of the Sustainable Development Goals (SDGs). Community soccer as a means of leadership formation sees youths active in community soccer experience enhanced leadership skills, including decision-making, communication, and conflict resolution. Contributions to SDG 3 (Good Health and Well-being) show that participation in community soccer improves the physical health and fitness of players. Youths engaged in this sport become more aware of the importance of healthy lifestyles, such as regular exercise. Soccer also aids in mental and emotional health aspects, boosting confidence, happiness, and reducing social stress. Additionally, the development of SDG 4 (Quality Education) sees community soccer helping to motivate children to attend school and excel academically. With regards to SDG 5 (Gender Equality), this program begins to create space for female participation in community soccer. Awareness of the importance of gender equality increases as more women participate in sports activities. However, female involvement still faces challenges such as social stigma and lack of gender-friendly facilities. While this research has revealed the positive impact of community soccer on leadership and SDG achievements, several aspects need further exploration in future research.

Further studies can employ a longitudinal approach to understand the long-term impacts of involvement in community soccer on youth careers and leadership. Long-term studies will provide a comprehensive picture of how experiences in community soccer shape the future of participants in education, employment, or social leadership. In-depth studies are needed to understand the barriers faced by women participating in community soccer and effective strategies to increase their participation. Research can also explore how sports can become a tool for women's empowerment in societies with strong patriarchal norms. Studies on the relationship between community soccer and youth mental health can also be an interesting topic, considering the importance of sports in reducing stress and enhancing psychological well-being. Comparative research between community soccer in Leo-Leo Village and similar programs

in other regions can help identify the best strategies for managing and developing these programs. Further research can examine the most effective funding models to support the sustainability of community soccer, including the role of sponsorship, village funds, and private contributions.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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Exploration of Passing Training Methods in Futsal Games: Review Study

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ABSTRACT

The purpose of this study is to determine the passing training method for ball passing skills in futsal. The training method is a scientific way to provide programmed treatment to improve athlete talent, athlete skills and athlete physical condition according to the sport being played. Good passing technique allows the team to maintain ball control, build attacks, and create scoring opportunities. It was concluded that there was a significant positive relationship between the level of passing training method and ball passing skills. This further indicates that the better the level of a player's training, the better his skills in passing the ball. These findings provide important implications for developing various training programs and focusing on improving ball passing skills.

Keywords : Method; Passing; Futsal

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INTRODUCTION

Sport is one of the physical activities that is done regularly with the aim of improving physical fitness, maintaining health, and improving the quality of life. In addition to being beneficial for physical health, sport also has many positive impacts on mental health, such as reducing stress. Therefore, sport should be made part of a daily lifestyle to achieve a healthier and more balanced life. According to (Mora, Firlando, and Salman 2021) Sports are a necessity for humans. This is because humans are creatures that move. Humans in carrying out their activities are never separated from the process of movement, because there is no life without movement. In its implementation, sports are physical activities that are universal because sports can be done by all levels of society regardless of differences in ethnicity, race, religion and educational background, economic status or gender.

Sports activities are one form of efforts to improve the quality of human resources of the Indonesian nation. The success of national development is greatly influenced by the quality of human resources. Sports coaching and development are part of efforts to improve the quality of Indonesian people. (SN and Setiawan 2020). One of the supporting factors to improve the quality of human resources is influential, because with sports humans can improve physical

fitness and maintain health. In addition to maintaining physical fitness, sports can also be used as a means of achieving achievements, therefore sports really need special attention and coaching in an effort to find new seeds and improve athlete achievement. All sports require the ability to master techniques, tactics, strategies, mentality, as well as supporting facilities and infrastructure in training and games. The most popular sport among the public at this time is football (Utomo and Indarto 2021). As a comparative sport, it is only right that its development and coaching should be carried out continuously through a well-planned and programmed training process that is supported by science and technology about sports, in the sense that the development of competitive sports for athletes must be directed towards the goals that are to be achieved both at the regional and national levels. (Haikal and Gazali 2024).

Futsal games provide benefits for body endurance because in playing futsal almost no one stays still, a player will run in all directions on the field, creating high tension and must have very good body endurance. (Suryadi, Maulana, and Saputri 2021). Futsal players are a popular sport and are widely loved by teenagers today. This is marked by the emergence of many futsal clubs, not only in big cities but also in villages. Several futsal championships or tournaments have been held, both in general and inter-school categories. Many schools have finally responded to this phenomenon by holding futsal extracurricular activities as a forum for students who are interested in this sport to achieve achievements. (Husyaeri and Saleh 2022). In futsal games there are basic techniques that must be mastered by players, such as passing, control, dribbling, and shooting techniques. From these basic techniques, futsal games can be formed. In addition, futsal is a team sport whose game is very fast and dynamic, a high collectivity will raise achievements (Sasmita and Hartati 2023). Playing futsal, the basic techniques of the game need to be mastered by each player. The goal of this game is to put the ball into as many goals as possible. As in football, the goal of futsal is to put the ball into the opponent's goal as much as possible, so the basic skills that need to be mastered by a futsal player are how to kick the goal correctly. Kicking the goal requires precision and calmness when doing it so that the ball can hit the target and produce a goal. (Lestari, Ni Kadek Yuni and Laksmi 2020).

According to (Noviada, Kanca, and Darmawan 2014) Passing and control itself is a very important basic technique in futsal, it can be said that if someone cannot do passing and control, then that person will not be able to play as a professional player. In futsal, the continuous movement of players also causes players to have to continue to pass, almost ninety percent (90%) of futsal games are filled with passing. Players who do not have good passing and control skills, the appearance of the player will not be as expected, so in order to get good basic passing and control techniques, special training is needed to achieve it so that in the futsal game it is more optimal. Basic passing techniques are the initial stage for students to learn the game of futsal. The results of the study showed that good passing skills can support futsal games better and make it easier to create goals into the opponent's goal. (Agustan and Hidayat 2021).

From the above expression, Passing is one of the basic techniques that is very important in futsal. Good passing technique allows the team to maintain possession of the ball, build attacks, and create scoring opportunities. In futsal, there are several types of passing, namely passing with the inside of the foot, the outside of the foot, and the tortoise foot. Each technique has a different function and use according to the game situation. Choosing the right passing technique will increase the effectiveness of the game and team cooperation. Therefore, understanding passing techniques is very necessary in futsal to improve individual or team performance.

According to (Adhi, Sugiharto, and Soenyoto 2017) The training method is a scientific way of providing programmed treatment to improve the athlete's talent, athlete's skills and the athlete's physical condition according to the sport being played. There are ten components of physical condition that must be met in sports and their fulfillment is adjusted to the sport being played by the athletes. The ten components of physical condition include cardiorespiratory

endurance, muscle endurance, muscle strength, flexibility, body composition, speed, agility, balance, reaction speed and coordination. The training method is one way to improve sports performance. One of them is the drill training method and the training method by playing. In its development, this training method is often applied in certain sports.(Adhi, Sugiharto, and Soenyoto 2017).

METHOD

The author conducted a literature review using the traditional literature review method. Traditional literature review is a comprehensive, critical, and objective analysis related to science or knowledge on a particular topic that does not have specific research questions or special methods in the literature search strategy. In this literature review, the author analyzes the relationship between passing training methods and passing skills in futsal players. The variables used are passing training methods and passing. The population is all literature sources related to the topic of this literature review. While the sample is all research sources with the topic of passing training methods on passing in futsal players that meet the inclusion criteria.

The inclusion criteria for this literature review are articles that have titles and contents that are relevant to the purpose of writing, research articles published nationally or internationally, research articles published in 2010-2024, full-text research articles, research articles indexed by Scimago Journal and Country Rank (SJR) and Sinta (Science and Technology Index), and research articles that have levels of internal validity of at least category B (limited) according to critical appraisal.

The literature review search strategy is to analyze or summarize several articles or research journals related to the questions and objectives of the writing. Literature search is the process of searching in depth for published information on a topic. Literature search aims to obtain as many scientific publications on a topic as possible.

The search method for this literature review data source is obtained from a literature study that has been published through electronic databases including Google Scholar, Garba Digital Reference, Science Direct, PubMed, and various other journal sites as well as books and other written data related to the title of this writing. The keywords used in this literature search are: "methods and passing", The literature sources used are literature published in the last 8 years, namely 2012-2020 and selected using inclusion criteria.

RESULTS

The author conducted a literature review of six published research journals related to the title of the article. The articles were found in the electronic databases Google Scholar and Garba Rujukan Digital.

Table 1. Source data paper

No	Title	Author & year	Method	Research results
1	Basic Active and Passive Passing Training Methods to Improve Skills in Futsal Extracurricular Activities	(Khoiruzi 2022)	Experiment	The test was conducted to determine whether there was an effect given from the provision of treatment to the variables studied. The provision of small-sided games training had an effect on passing accuracy in extracurricular futsal students. Furthermore, other studies conducted, that the reward for small-sided games training increased the

- 2

The Effect of Triangle Passing and Zig-Zag Passing Exercises to Improve Passing Techniques in Futsal Extracurricular Activities at SMA Negeri 2 Kendal (Wiranto, Prastiwi, and Fahmi 2021) Experiment

convoy of better and more structured player positions.

Shows that the underhand passing exercise with a wall target has an effect on the passing technique ability of the futsal extracurricular participants of SMA Negeri 2 Kendal. After being given underhand passing exercise with a wall target, the average passing technique ability of the respondents was 43.83 where previously it was only 41.5 or an increase of 5.62%. Through underhand passing exercise with a wall target, players are able to direct the ball well so that the accuracy in passing is more focused.
- 3

The Effect of Resistance Band and Plyometrics Training Methods on the Passing Ability of Futsal Extracurricular Students at Sma PGRI 2 Palembang (Syahab, Manullang, and Handayani 2023) Experiment

The effect of resistance band training on students' futsal passing ability because the Sig value is $0.530 > 0.05$ with the contribution of the influence of resistance band training is 76.2%. b). There is an effect of plyometrics training on students' futsal passing ability because the Sig value is $0.107 > 0.05$ with the contribution of the influence of plyometrics training is 62.6%. c). There is a difference in the resistance band training group and plyometric training before and after being given treatment on the passing ability of extracurricular futsal students at SMA PGRI 2 Palembang because the sig value is 0.177 is greater than 0.05.

There is an Effect of Zig-Zag Crossover Shuffle Training on Increasing the Agility Results of Osram Mataram Futsal Players in 2020. The t-value of X (agility) is 5.933, the simultaneous value between Y and X draws the conclusion of the table analysis at a significant level of 5% with a sample size (n-1) of 11, which is 1.796. So it can be concluded that "there is an Effect of Zig-Zag Crossover Shuffle Training on Increasing the Agility Results of Osram Mataram Futsal Players in 2020". seen from t-value> t-table ($5.933 > 1.796$)" is accepted.
- 4

The Effect of Zig-Zag Crossover Shuffle Passing Training on Increasing the Agility Results of Osram Futsal Players (Wardani 2022) Experiment

In cycle 1 and cycle 2 on the application of the drill method on basic futsal passing techniques, there has been a significant increase, namely entering the very good category with a percentage of 83%. The first 3 weeks for cycle 1 and the second 3 weeks for cycle 2. The results
- 5

Efforts to Improve Basic Futsal Passing Technique Skills Using the Drill Method (Sugiarto, Tomi, and Fauzi 2022) Experiment

were obtained in the last week, it was found that the basic passing technique skills of futsal extracurricular participants at SMA Negeri 3 Kediri had increased. The level of success has reached the criteria for completion of the good category with a percentage of 83%.

This study uses an experimental method involving independent variables, namely drill training methods and tactical training methods and eye-foot coordination, while the dependent variable is passing skills in futsal games for BKMF Futsal FIK students, Makassar State University. (1) The drill training method has a better influence than the tactical training method on passing skills in futsal games, (2) There is an interaction between the drill training method and the tactical training method and eye-foot coordination on passing skills in futsal games. (3) The drill training method has a better influence than the tactical training method on passing skills in futsal games for athletes with high eye-foot coordination, (4) The drill training method has a better influence than the tactical training method on passing skills in futsal games for athletes with low eye-foot coordination.

Shows that the pretest and posttest data from the analysis using SPSS, each group, namely (a) the treatment group using small games based on high and low motor educability towards learning motivation obtained an average of 06.31% and for futsal passing obtained an average of 06.90% with sig < 0.05. (b) the control group did not use small games based on high and low motor educability towards learning motivation obtained an average of 01.37% and for futsal passing obtained an average of 01.40% with sig > 0.05.

Treatment of passing variations on a group of orangiro teams after being given treatment or treatment for 16 meetings in one week three meetings on the orangiro team. In this study, the researcher concluded that there was a contribution in the form of improving basic passing techniques on

The effect of training methods and eye-foot coordination on futsal passing skills at BKMF Futsal FIK UNM

(Kurniawan 2023)

Experiment

The Influence of Small Games Based on Motor Educability Levels on Motivation and Futsal Game Passing Skills

(Syahrial, Sudijandoko, and Priambodo 2020)

Experiment

Contribution of exercise variations to basic passing skills in futsal games

(Hidayat et al. 2024)

Experiment

				the 2020 orangi-ro team, this was indicated by the t count being greater than the T table 12,080> 1.729. The average pretest value was 14.4 and the average posttest was 22.6.
9	Improving Efficiency in Futsal	Passing (Irawan et al. 2024)	correlational	That the explosive power of the leg muscles plays a fairly large role The passing ability of futsal players of Rajawali Gorontalo is 57.91% of their performance. The correlation value of 0.761 exceeds the expected value at a significance level of 0.05, and the t-value of 4.058 is also statistically significant. Thus, the hypothesis proposed in this study has been supported by data analysis.
10	The effect of small sided games training method on passing skills in futsal	(Halimah, Nurwansyah, and Purbangkara 2023)	pre-experimental designs one group pretest-posttest	data analysis and testing hypothesis of the average before treatment and after treatment experienced a significant increase from six point three to seven point eighty three. Meanwhile, the results of the hypothesis testing calculation obtained a significance value that was less than the significant level (α). The results of the descriptive statistical calculation on the mean pretest and posttest passing, it can be concluded that there is an influence of the small-sided games method in improving passing skills in the futsal extracurricular at SMAN 1 Lemahabang. It can be seen from the learning of futsal passing techniques with the form of basic playing concepts that it can influence the results of the futsal passing test of students who take part in the futsal extracurricular at SMAN 1 Lemahabang. Statement

The author found that the seven articles used had similarities regarding the variables analyzed in his research. All articles found had the same dependent variable, the variable was ball passing. However, there were differences in the number of samples used in each article.

Based on the results of the analysis of the three articles. The article is "The effect of the small-sided games training method on passing skills in futsal games" written by (Halimah, Nurwansyah, and Purbangkara 2023). That the application of the small sided games method has a good influence on improving futsal passing skills, the influence is shown by an increase after being given treatment for ten meetings, as many as four students thirteen point three percent have a moderate category, seventeen students fifty-six point seven percent have a good category, and nine students thirty percent have a very good category, after observing the increase in student learning outcomes with the effect of applying the small sided games method, student learning completeness has an influence from three to seventeen students out of a total

of thirty students, the results of the influence of futsal skills using the small sided games method are better than students who learn with a conventional approach.

According to other article sources found by the author, giving a variation treatment of passing to a group of orangi-ro teams after being given treatment or treatment for 16 meetings in one week three meetings on the orangi-ro team. In this study, the researcher concluded that there was a contribution in the form of improving basic passing techniques on the 2020 orangi-ro team, this was indicated by the t count being greater than the T table $12,080 > 1.729$. The average pretest value was 14.4 and the average posttest was 22.6 (Hidayat et al. 2024). Accuracy as a motor skill is a component of physical fitness that is needed in children's daily activities. Accuracy can be in the form of movement (performance) or as accuracy of results (results). Accuracy is closely related to the maturity of the nervous system in processing input or stimuli that come from outside, such as being accurate in assessing space and time, being accurate in distributing energy, being accurate in coordinating muscles and so on. (Rosita, Hernawan, and Fachrezzy 2019). The purpose of passing is to give or pass the ball to a friend. Good and correct passing is very much needed in futsal, because by being able to master this technique it will make it easier for our friends to receive the ball that we give. While control (stopping) aims to stop the ball effectively. With effective stopping techniques, the team will be able to build a very effective defense and attack (Rizky and Zulkifli 2023).

Based on the results of the analysis of seven articles found by the author and used as the main source in this literature review and several other supporting articles, the author revealed that the futsal passing training method has a relationship with passing skills in futsal players. This is supported by the research results that have been obtained in each article.

CONCLUSION

Based on seven articles in the form of research journals that have been analyzed by the author related to the title of the writing, namely the relationship between passing training methods and passing skills in futsal players, this literature review concludes that there is a relationship between passing training methods and passing skills in futsal players.

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CONFLICT OF INTEREST

I declare that in preparation and implementation article This No there is conflict interests that can influence objectivity and integrity from the results obtained.

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