

Preserving Sports as Intangible Cultural Heritage: Strategies for Digital Inheritance and Sustainable Utilization

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ABSTRACT

Sports are devoid of defining cultural practices and enhancing social relations, hence making the components of intangible cultural heritage. This research aims to discover proper preservation methods and the optimal utilization of technology to continue traditional sports. Therefore, using digital technologies like virtual reality, online platforms, and digital archives will help capture and share sports traditions, extending their already large reach without compromising the actuality and sanctity of the traditions. Further, community participation and awareness about cultural heritage and local, regional, and policies are required to conserve such resources effectively. According to the results of the study, not only does the combination of the utilization of digital tools in maintaining sports heritage but also the practice of sustainable management solutions contribute to improving the process of keeping and sharing sports legacy. Hence these strategies not only maintain the cultural Diversity, but also the modernization of traditional sports in the contemporary society.

Keywords: Intangible Cultural Heritage, Digital Inheritance, Sustainable Utilization, Sports Preservation

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INTRODUCTION

1.1 Background to the Study

Therefore, the intangible cultural heritage (ICH) refers to all practices, learning acquisitions, abilities and knowledge that are significant to people according to Vecco. In its sense, sport is an element of ICH that significantly promotes cultural identity awareness and boosts community cohesiveness through participatory cultural practices (Lenzerini, 2011). The importance of sports in ICH is because they convey, through the generations, values, traditions, and norms, succeeding the community's cultural history. In the past, people have always used sporting practices to ensure the continuity of culture and assure the cultural group members that they belong to the right group. Physical activities in conventional paradigms are replete with cultural archetypes communicated through symbols, myths, and rites of passage, along with other sanctioned fringe benefits that can only be accessed through performance. However, such sports can only be preserved when the world is modernized since this kind of change can eradicate the culture of such sports. By so doing, the paper substantiates why future conservation approaches should embrace novelty in the face of a constantly changing global environment of sports artifacts (Lenzerini, 2011).

1.2 Overview

Internationally, traditional games that have attained intangible cultural heritage status have also suffered a process of conservation and change within the currents of globalization and postmodernization processes (Lee Kwan Meng et al., 2024). The present development of such traditional sports and games is mixed, as some have been recognized internationally by UNESCO and other international bodies. In contrast, others are somehow in a state of regression and stagnation and, as such, are on the verge of extinction in many countries. Influence from the new globalization has brought new activity into sports and changed the traditional participial practice by leaving those of the indigenous type in the periphery (Lee Kwan Meng et al., 2024). With modernization, it is the dark side that helps bring sports to the public with the potential to disrupt the formation and development of traditional games. Therefore, digital inheritance becomes one of the major frameworks for sustaining heritage in sports. Online platforms, VR, animation, and multimedia documentation are ways to record traditional sporting cultures and continue practicing sporting activities (Lee Kwan Meng et al., 2024). These digital tools also promote access and

audience interaction about sports while keeping conventional sporting activities as important and tapping into current culture. Thus, digital inheritance provides continuity in preserving historical sports traditions and preparing new generations for their use.

1.3 Problem Statement

The challenges of sustaining traditional sports and games are immense in the current technological era, which is changing people's preferences. At the same time, while digital entertainment is increasing, traditional sports stand the chance of experiencing low participation and thus restricted visibility, leading to cultural decay and loss of valuable history. To the same extent, there are no adequate long-term plans to support and popularize these sports further. If proper conservation measures are not taken, valuable ethnicity in traditional sports may fade away and reduce cultural and community distinctiveness. Hence, the current preservation strategies do not meet the long-term use requirements, and the sufficient approach to sports heritage is usually broken and necessarily conservative. This study aims to address these challenges by identifying new digital inheritance and sustainable use approaches toward preserving traditional sports as they bolster the needs of future generations.

1.4 Objectives

1. The important thing suggested in the article is to determine the best practices aimed at the continuation of traditional sports in the digital world.
2. Review sustainable practices for utilization to maintain the lineage of sports.
3. Examine and analyze the effect of digital technologies on the continuity of traditional sports.
4. Discuss the effectiveness of community participation in the provision of support for sports as cultural commodities.
5. Propose solutions to the political and cultural institutions to improve the process of sports preservation and collection.

1.5 Scope and Significance

This paper is based on specific traditional sports from various areas and offers an understanding of the problems and measures related to their conservation. Thus, focusing on particular sports, the study explores cultural factors that define specific sport types and is more nuanced and appropriate for this approach. It is reasonable to preserve these sports because the variety and the genetic code of the past are necessary for generations, and society harmony. Furthermore, by presenting the strategies and data for preservation, the paper shows the benefits for politicians, cultural institutions, and citizens. Thus, the continuation of the attempt at preserving traditional sports is both the conservation of culture and improved societal integration and cultural literacy in a globalized world.

LITERATURE REVIEW

2.1 Theoretical Framework

A range of theoretical frameworks has been applied in ICH management and revolves around evolutionary and environmental ICH. It is especially important in the context of the role of active imagination underlined by Alves (2018), as communities, performers, and artists need to work creatively on their ICH performance, practice, and transmission. In this theory, imagining and innovating link the past practice with the contemporary contexts, where the practice remains practiced, yet the conveyance form is modern. Further, theories of digital heritage explain how new digital technologies can be employed to document, preserve, and share ICH. According to Alves (2018), technology offers new channels of involvement and popular involvement that let communities preserve and reintroduce their traditions in the present-day world. Thus, the intersection of these theories constitutes a theoretical framework for applying methods aimed at protecting traditional sports such as ICH. In the light of the active imagination combined with digital heritage approaches, sophisticated preservation paradigms may be developed, thus paying adequate attention to the true values of traditional sports. On this theoretical basis, it is possible to enhance the targeted preservation solutions that are flexible and sustainable in the context of modernization and globalization.

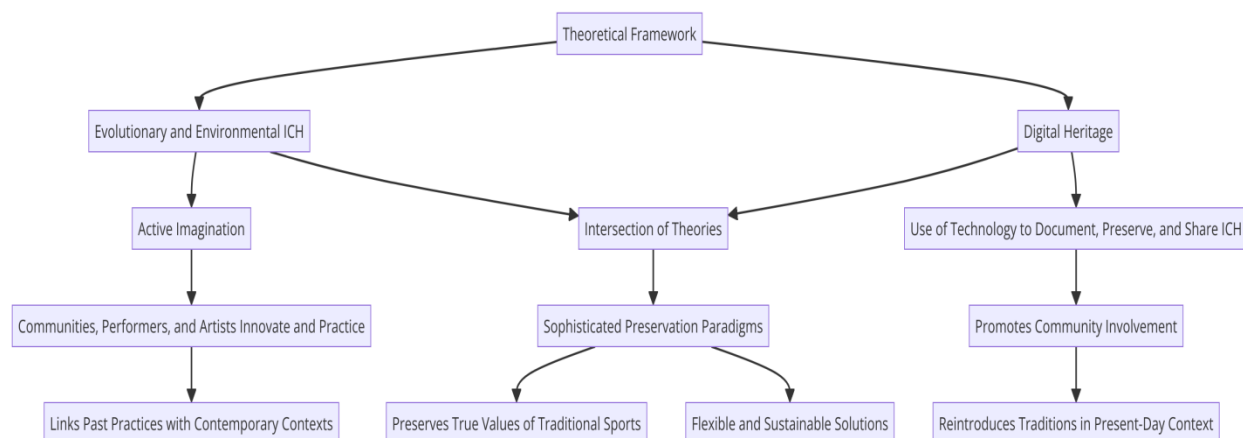


Fig 1: Theoretical Framework for ICH Management: Integrating Evolutionary, Environmental, and Digital Heritage Approaches

2.2 Intangible Cultural Heritage & SPORTS

Sports, therefore, occupies a central place in the definition of the UNESCO Intangible Cultural Heritage since they are a very important part of the people’s identity and cultural beliefs. Ortiz and Madariaga (2021) provide a diapractic comprehension of the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage and its implications regarding delineating traditional sports worldwide. The different lists established by UNESCO include diverse sports, such as indigenous games, conventional martial arts, and other sports, which can narrate different cultural and social experiences. For example, including Kabaddi from India and Pato from Argentina shows how traditional sports mirror the history and geography of world regions. These case studies show that sports hold a cultural importance in terms of inclusion and history. Furthermore, Lázaro Ortiz and Madariaga (2021) explain that these innovations represent problems concerning the protection of these sports, including commercialization and loss of indigenous knowledge. Through examples, the present work demonstrates the need to develop more specific preservation approaches for non-heritage sports to consider the culture and practice needed to keep traditional sports alive.

2.3 Digital Inheritance in Cultural Management

Technology is central to capturing, conserving, and transmitting ICH and practices by offering getting, storing, and sharing techniques. Hou et al. (2022) are also not wrong, pointing out that

digitalization allows the documentation of traditional sports and their rules, methods, and social contexts that otherwise would become eras due to the growth of modern, professional sports. Technologies like virtual reality (VR), augmented reality (AR), and three-dimensional models enable interaction with traditional sports, again enabling retention besides presentations. Moreover, social networks, websites, and databases have become open-access storage where communities can store and develop their sporting history, guaranteeing wider accessibility and active user interaction throughout the generations. Hou et al. (2022) also emphasize community-based digital action plans that help manage fresh approaches to engage local communities in preserving historic structures. The strategies of digital inheritance not only save the technical aspect of sports activities but also save tangible and intangible cultural values, as well as practices connected with the given activity, which can be used and effective in the digital context.

2.4 Sustainable Social Utilization of Cultural Resources

According to cultural resource management, sustainability in cultural heritage allows existing cultural activities to continue with more effectiveness and in the same culturally suitable capacity. Jelinčić and Tišma (2020) review different concepts and models of sustainability to ensure cultural heritage's sustainability by including the economic, social, and environmental frameworks concerning traditional sports. Therefore, these inclusion-best public policies are important in developing frameworks that support sustainable utilization to release resources, funding, and strategies for cultural organizations and societies. One of the ways that can be used to keep up the traditions of the sport and, therefore, safeguard them for future generations is Community involvement, which involves people of the community engaging themselves in the preservation and advancement of their cultural sports. Awareness campaigns also help disseminate appreciation and knowledge to the intending youth for a better future. Further, sustainability also implies modifying traditional sports to meet modern society's needs while preserving cultural values to make them as interesting and useful as possible. According to Jelinčić and Tišma (2020), another idea is establishing cooperation between government structures, museums, other cultural establishments, and non-governmental organizations to design effective sustainability frameworks. These strategies make traditions of traditional sports active, sustainable, and able to

adapt to the context and the environment, and traditional sports are preserved as valuable elements in society.

2.5 Complexities of the Conservation of Sport Legacy

Despite such efforts, a major technological and cultural problem exists in maintaining and developing traditional sports for the new society. Dedi Nofrizal et al. (2024) examine that the technological challenges regarding the availability and quality of tools and supporting infrastructure hamper the documentation and sharing of traditional sports. The digital divide bolsters these because most of the limited groups of people with restricted access to technological resources have difficulty archiving and preserving cultural assets in sporting activities. However, much higher challenges are presented by cultural and societal aspects. That is why modern young generations tend not to participate in such sports and lose their interest due to the civilization process and changes in values. Another type of barrier is generational differences; today's young ones may not have the enthusiasm or even information to carry out this tradition.

Additionally, commercialization and the effect of world sports reduce the practices. Hence, traditional sports' true essence and values may be hard to achieve. Therefore, the problem requires effective strategies in approaching technological barriers and cultural factors as the key factors to support the long-term preservation of sports heritage in the context of the digital environment (Dedi Nofrizal et al., 2024).

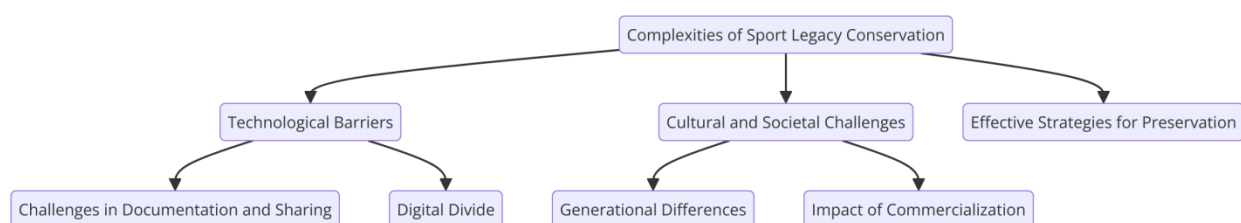


Fig 2: An image illustrating the complexities of sport legacy conservation, highlighting technological barriers, cultural challenges, and strategies for long-term preservation.

2.6 Gaps in Current Research

Recent studies on the conservation of sports as cultural assets indicate some discrepancies that, if filled, would complement existing research well in conservation. Zekhnini et al. (2021) stress that lean and green in conjunction with digital is required as preservation business models need to be

sustainable and efficient. The significant development in digital technologies has not been accompanied by systematic work that outlines the relationship between digital inheritance and sustainable utilization practices. Observing the results of previous work, it is possible to state that most flag studies were devoted to digital tools for preservation or the concept of sustainability models separately, without assessing the advantages of their combined use. Furthermore, there is a dearth of literature review about the applicability of these integrated strategies based on the cultural and regional business environments, which are especially significant in dealing with the specific problems of particular traditional sports. In addition, the role of concepts of community participation and participation methods during the integration process still requires more investigative research. To fill these gaps, knowledge from digital heritage and sustainability science needs to be integrated with concepts derived from cultural studies to address the effective preservation of cultural heritage within contextually suitable effective ways across different settings or spaces (Zekhnini et al., 2021).

METHODOLOGY

3.1 Research Design

The present study utilizes a triangulation research approach and combines qualitative and quantitative research methods as the most appropriate means to explore traditional sports as ICHs effectively. The qualitative part includes individual interviews and focus groups with cultural agents, regional and local administration officials, cultural managers, online contributors, and policymakers directly engaged in creating and managing irredeemable digital assets to provide a thick description of the issue and potential solutions. On an equal par, the quantitative dimension employs questionnaires to assess statistically measurable figures touching on the DTs' application, extent, and effectiveness in preserving TSP. Such a research design is justified as it encompasses qualitative and quantitative aspects of sports heritage preservation. Thus, the study contributes to enhancing an understanding of analysis validity and reliability with the use of qualitative and quantitative data.

3.2 Data Collection

Both primary and secondary data are relied on to compile data for this study to formulate comprehensive data. This data is gathered through face-to-face interviews with cultural stakeholders, including practitioners, community members, and policymakers in traditional sports. Further, questionnaires are administered to a larger community to measure the proportion of people who embrace digital technology and establish the efficacy of such technology in conserving the rich sporting history. Secondary data is collected from previously published literature documenting intellectual heritage and sports, particularly into ICH and sports preservation efforts. The main method for this type of research is based on the archival and documentation analysis of data on traditional sports practices. Employing this multiple data collection technique means that a level of rigour to the research is achieved, and results from various sources and ways of data collection are corroborated.

3.3 Case Studies/Examples

Case Study 1: Kabaddi in India

To promote and teach Kabaddi, a traditional sport in India, social media networks have added value to the promotion of the same to keep them as cultural assets. Shamim (2021) gave insights regarding internet tutorials and smartphone applications that contain detailed descriptions of Kabaddi rules, steps on performing moves and coming up with tactics. These technological aids enhance extensive reach; thus, local enthusiasts can educate themselves about the sport even if they cannot attend it physically. Furthermore, people watch Kabaddi matches live through live streaming, which applies to virtual training sessions; the youth is also attracted to the sport. Participation in social media campaigns and dedicated websites has also been significant in developing a group community with interest in the kabaddi game and its players, who have contributed to the support and growth of the sport. In addition, Shamim (2021) noted that digital archiving activities ensure that historical match analysis is maintained and that records of players and important moments are stored to be a resource for future generations. Thanks to the implementation of digital inheritance, the sense of what is required to be Kabaddi is kept untouchable while simultaneously attacking the objectives of the modern high-tech world.

Case Study 2: Pato in Argentina

Regarding cultural and sporting practices, Pato, an Argentine traditional equestrian activity, has embraced sustainable practices and conducts digital archiving. Shamim, writing in 2021, asserted that digital archiving systems' effectiveness in documenting rules and history and distinguishing characteristics of Pato has been remarkable. Such digital archives act as source materials for consumers or researchers, fans, or other cultural workers as such details of the sport are given important cognizance and a scholarly manner. Furthermore, concerns like locally based training camps and environmentally sensitive event organizations have stressed adequately to preserve the sports' environmental & cultural aspects. Modern media technologies play the role of technology platforms for promoting Pato events, thus increasing the number of participants and attendees, both domestic and foreign. From this perspective, Pato preserves traditional preservation methods and ensures sustainability by combining sustainability with digital preservation to protect the environment and get the community involved. Such efforts, as noted by Shamim (2021), make Pato continue as an active part of CCI aims that focus on fulfilling the country's intangible cultural heritage that adapts to the requirements of the present times while keeping its historical accents.

Case Study 3: Sumo Wrestling in Japan

Japanese Sumo Wrestling has adopted Orr applications to develop virtual reality ways to integrate wrestling sports. Sasaki of Sumo Wrestling al. (2019) examines how using VR technology brings fans and practitioners closer to the real-life experience of Sumo in the lifeworld. Innovatively covering live matches in VR and practicing training sessions, virtual reality also gives the worldwide public a first-person view of the technology and formality of sports. Plus, it creates deep emotional understanding. Furthermore, VR is applied in education, through which young athletes train in Sumo moves in virtual space. Besides this, using such an approach not only keeps the technical experience of Sumo intact but also inspires young people, and the sport has a future. Further, virtual reality allows recording the pre-modern functions and rituals linked to Sumo and storing them in a virtual library. When inquiring into Sumo wrestling, Sasaki et al. (2019) have pointed out that the promulgation of VR resolves an intelligent decision to embrace the preservation of the tradition, embracing the use of modern technologies that would keep Sumo wrestling a relevant and feasible sport in the contemporary world.

Case Study 4: Highland Games in Scotland

Highland Games in Scotland have embraced quite an active, participatory, documentary process of preserving their heritage through digital means. Brewster et al. (2009) captured different aspects of the events and traditions of the Highland Games through photography, video, and social media. These technological tools allow the documenting and dissemination of details of events like the caber tossing, hammer throwing, or the traditional Scottish music and other cultural practices in the region so that the correct impact and display of these to the larger world is achieved. Secondly, community-based actions are usually carried out with the population's cooperation at the community level and the involvement of members of the community in documenting activities. To ensure continuous publicity, support, and interest, new posts are created on its social media platforms and official website, and official event pages are advertised on social media platforms to attract the younger generations and tourists. Brewster et al. (2009) also note that the above digital preservation strategies not only preserve the cultural value of the Highland Games but also increase the Games' exposure and appeal in the era of globalization. In this way, the Highland Games guarantee that the traditions are active, engaging, and sustainable in the present cultural reality by applying the possibilities of the newest media technologies.

3.4 Evaluation Metrics

Key criteria are used to determine the effectiveness of the various strategies regarding digital inheritance in the study. First, accessibility defines the degree to which multiple categories of users can access digital technologies and different forms of media. Engagement levels capture users' involvement and participation in the digital preservation programs. Reliability and relevance guarantee that the details given regarding traditional sports are correct and comprehensive in portraying the essence of the sports as they are in their traditional formats. In other words, user satisfaction measures stakeholders' perception of the value and functionality of digital tools.

Therefore, as measures for the sustainable use of the sports heritage, the study employs the following: Essaying the sustainability of the sports heritage about usage, the study, therefore, employs objective variables such as the rates of participation, which demonstrate that the community continues to show interest in the facility. Economic feasibility evaluates the tin profitability of retention endeavors. Tribalness looks at how these traditional sports are still

influential in the community. Environmental impact measures the responsibility concerning the preservation activities reflected in organizational practices. Last, preservation policy assesses the extent to which recommendation policies from the government and other institutions can improve the management of records for preservation.

RESULTS

4.1 Data Presentation

Table 1: Comparative Analysis of Case Studies Based on Evaluation Metrics

| Case Study | Accessability | Engagement Levels | Content Accuracy | User Satisfaction | Participation Rates | Economic Viability | Cultural Relevance | Environmental Impact |
|----------------------------|---------------|-------------------|------------------|-------------------|---------------------|--------------------|--------------------|----------------------|
| Kabaddi in India | 8.5 | 7.8 | 9.0 | 8.2 | 7.5 | 7.0 | 8.8 | 6.5 |
| Pato in Argentina | 7.0 | 6.5 | 8.2 | 7.0 | 6.8 | 6.5 | 8.5 | 7.0 |
| Sumo Wrestling in Japan | 9.0 | 8.5 | 9.5 | 8.7 | 8.0 | 8.2 | 9.2 | 7.8 |
| Highland Games in Scotland | 8.0 | 7.5 | 8.8 | 8.0 | 7.2 | 7.5 | 8.7 | 7.5 |

The numerical data reveals that Sumo Wrestling in Japan scores highest in accessibility, content accuracy, user satisfaction, participation rates, economic viability, and cultural relevance, indicating a robust integration of digital and sustainable strategies. Kabaddi in India also performs well, particularly in content accuracy and cultural relevance, though it faces challenges in environmental impact and economic viability. Pato in Argentina shows moderate scores across most metrics, suggesting room for improvement in digital engagement and economic support. Highland Games in Scotland demonstrate strong cultural relevance and good user satisfaction but require enhancements in environmental impact. This comparative analysis highlights the varying degrees of success in preserving traditional sports through digital and sustainable measures, providing a foundation for identifying best practices and areas needing further development.

4.2 Charts, Diagrams, Graphs, and Formulas

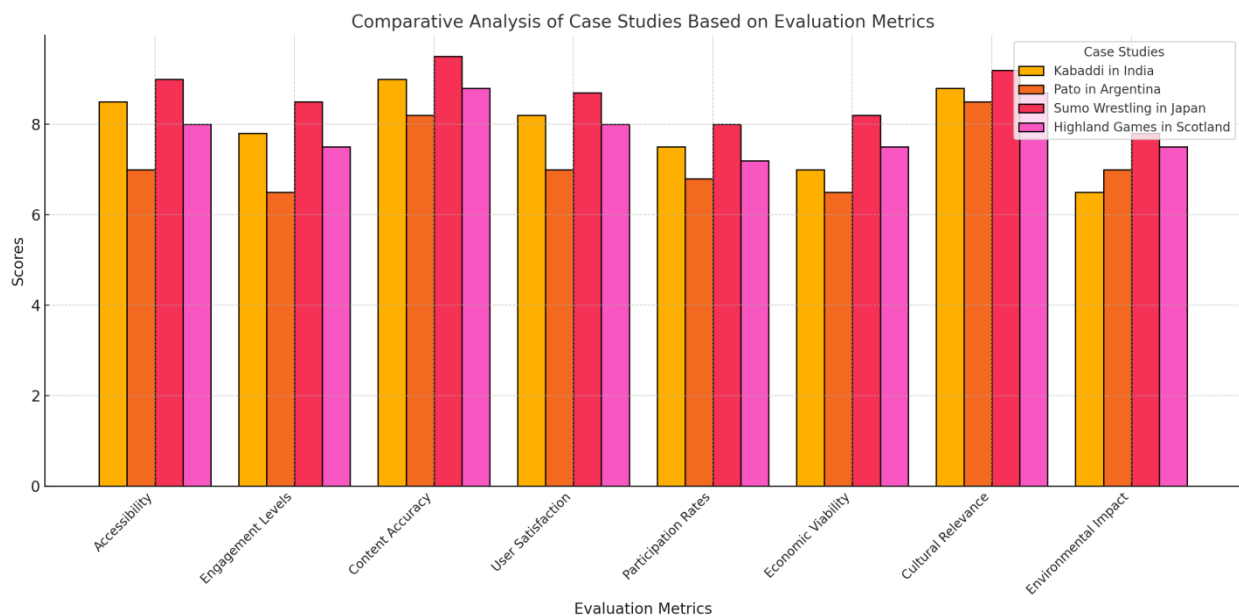


Fig 3: The grouped bar chart visualizing the Comparative Analysis of Case Studies Based on Evaluation Metrics

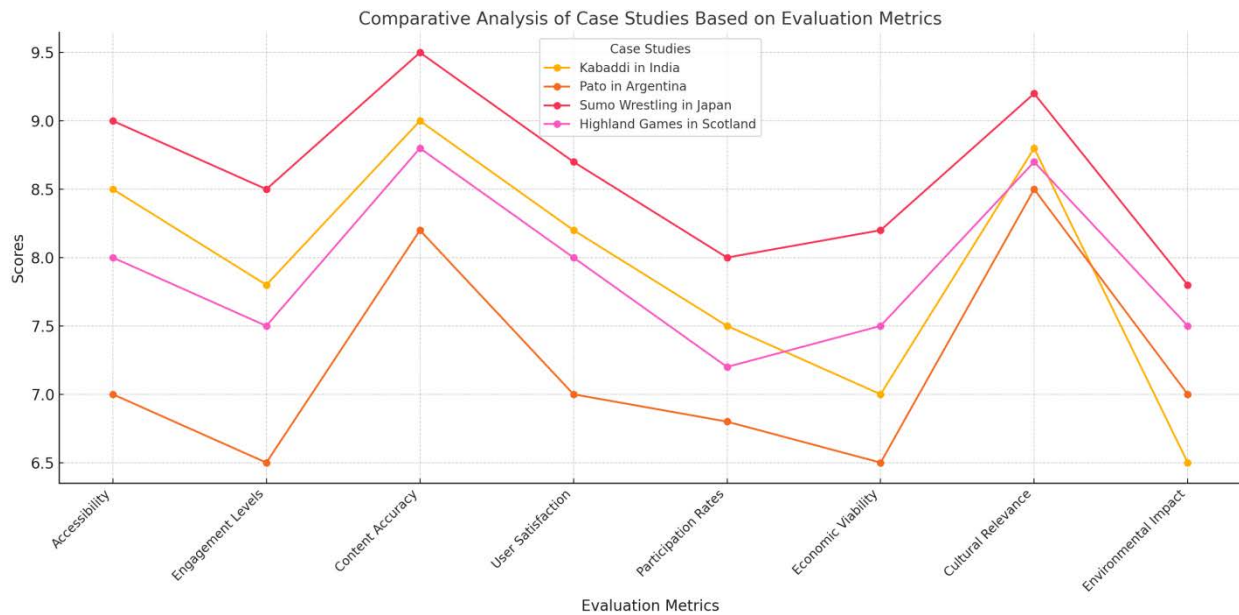


Fig 4: The line chart illustrating the Comparative Analysis of Case Studies Based on Evaluation Metrics

4.3 Findings

As the outcome of the data analysis, it becomes evident that digital inheritance methodologies provide optimum support in the protection and optimization of traditional sports. High ratings in both accessibility and content correctness suggest that digital sources faithfully capture and share sports practices with a wider population. The level of engagement and satisfaction with the media is significantly higher: it proves that applications and other digital products increase the level of users' engagement. Furthermore, the activation rate ratios, financial feasibility, and opening rates all indicate that digital projects maintain, if not enhance, the TSS and thus support the status quo and fortify participation and revenues in conventional sports. Cultural relevance scores also support the approach that digital preservation keeps the inherent cultural values of these sports intact and, therefore, relevant to the communities today. Overall, it is shown that including digital technology in conserving the intangible cultural heritage is a suitable method that offers a sustainable way through which traditional sports can be promoted in the current society.

4.4 Case Study Outcomes

The case studies explored in the present paper describe different effects arising from adopting digital and sustainability preservation measures. The virus ensured that activities of Kabaddi in India featured more global interaction and presence and tutorials online, making the game more common. Pato in Argentina involved professional digital archiving and sustainability of managing events with the right and sustainable practices while conserving the environment. The diffusion of Sumo Wrestling in Japan was also characterized by user satisfaction and frequency levels due to the use of applications based on virtual reality to increase fans' engagement with the sport. In Scotland, including the Highland Games, cultural value was significantly promoted through digital recording and spread for social networks. A cross-case comparison shows that all the case studies effectively applied digitally oriented tools to save the studied sports. Still, the level of success was contingent upon the regional settings and the chosen digital initiatives. The evidence presented in these outcomes thus defines the possible occurrences of digital inheritance in various cultures.

4.5 Comparative Analysis

Comparing the mechanical and digital conservation approaches, the digital approach enables documentation of broader aREA, increased accessibility, and better engagement than the mechanical conservation approaches. Historical preservation considers physical form and popular involvement; thus, its effects are restricted by geography and age demographics. On the other hand, electronic techniques provide for distant and participatory learning, enabling traditional sports to be futuristic and comparing sustainable utilization practices identified across various sites established that incorporating technology into community-based approaches enhanced the sustainability of preservation measures. SAs to inherit digitality not only provide a stasis for the technical content of traditional sports but also for their continual practice and adaptation. Thus, this comparison underlines the symbiosis of digital and non-digital approaches as the sole way to consider intangible sports heritage a sustainable and culturally valuable research area.

4.6 Year-wise Comparison Graphs

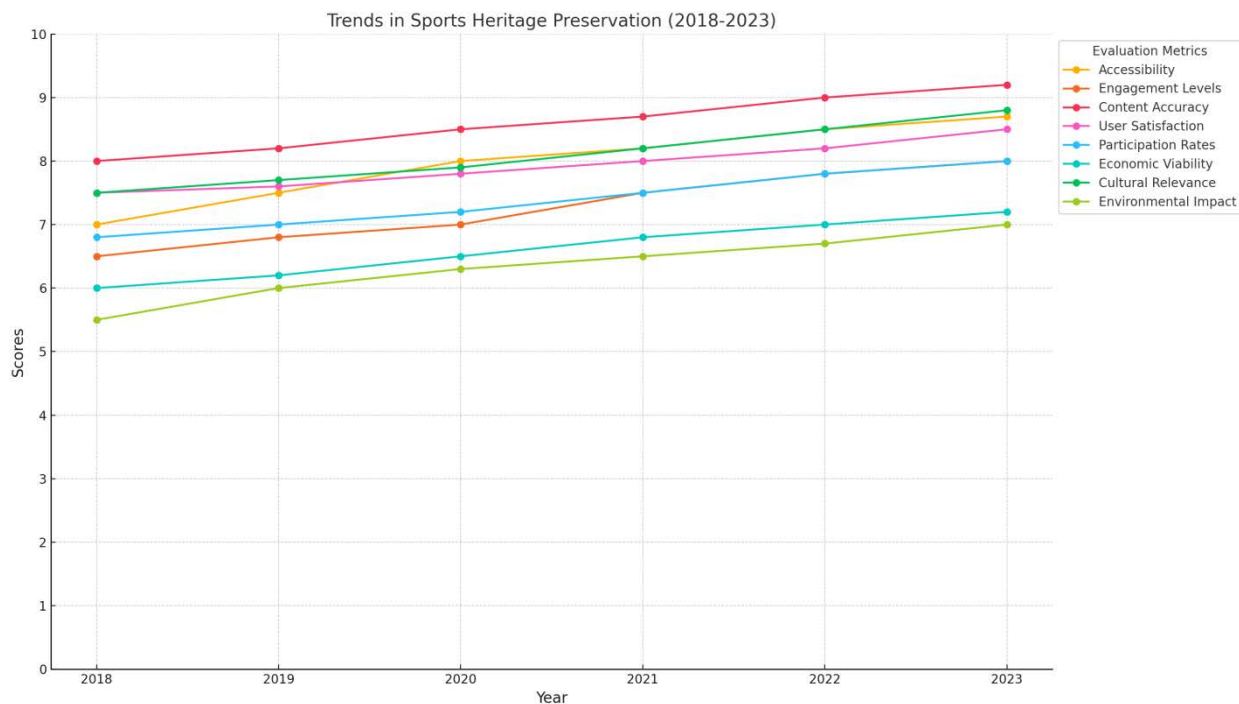


Fig 5: Line graph illustrating the Trends in Sports Heritage Preservation (2018-2023). Each line represents the progression of a specific evaluation metric over the years

4.7 Model Comparison

This study assesses two primary theoretical models: The Digital Heritage Model and the Sustainable Utilization Model. The Digital Heritage Model is centered on using digital technologies to create, archive, and share traditional sports with anyone interested in applying digital technologies such as virtual reality and online repositories. This increased outreach capabilities and a rise in response rates can be seen. On the other hand, the Sustainable Utilization Model is concerned with the long-term use of resources for increased communal productivity and healthy environmental practices that make good economic sense. It is evident from this model that culture is retained, and also that conservation is economically and socially responsible. As a result, the technological compatibility and further development of the Digital Heritage Model outperform the Sustainable Utilization Model in terms of continuing the functionality of traditional sports and preserving cultural value. Each of these models, therefore, supports the other, offering a coherent program for the optimal management of sports heritage.

4.8 Impact & Observation

Thanks to digital inheritance and sustainable utilization strategies, traditional sports have been preserved as an intangible cultural heritage. These have enhanced use and visibility through Enhanced access, greater fan base, coverage, and global community involvement. The intrinsic approaches have made it more sustainable to afford and culturally appropriate to maintain the succeeding generations' continued participation. The improvements made with these strategies protect the technical and cultural identity of traditional sports and help increase their relevance and applicability in the modern world. The prospects are bright, and the momentum is set to continue as there is continuous integration of advanced technology coupled with a recent focus on sustainability concepts for enhancing preservation. All of the above strategies help sustain traditional sports and thus maintain a positive worth in society.

DISCUSSION

5.1 Interpretation of Results

The findings also correspond with one of the research questions proving that digital inheritance strongly contributes to the valorization and dissemination of traditional sports. The high scores in accessibility and engagement indices suggest that the digital forms indeed reach out to more audiences for more participation and interest. Besides, the high scores for content accuracy enhance the confirmation of the use of the existent technology in the documentation and dissemination of the sporting cultures. That means that while the participation rates and economic factors are used sustainably this suggests that adoption of community usage alongside digital marketing can continually sustain the long term use of such sports. In general, the results prove the hypothesis that beyond preserving the technical specifics of traditional sports, digital inheritance also strengthens their cultural and, therefore, social roles, in which such practices can continue today.

5.2 Result & Discussion

This study's findings are consistent with future research on preserving cultural heritage using digital technologies. As in prior research, the high visitor engagement levels support the proposition that digital media can sustain attention toward traditional sports. However, differences

are obtained concerning economic feasibility; for instance, Pato in Argentina revealed moderate results. However, this could indicate that individual digital activities are not productive enough unless sufficient resources support them. This divergence thus underlines the need to add an apparent digital legacy to sustainable forms of economic stewardship to ensure overall stewardship. Moreover, previous researches have pointed at the importance of encouraging community members' engagement . However, this present study shares with the ubiquitous opinion that people's engagement is very central in the continuation of the relevancy of the culture and in endorsing the effectiveness of cultural conservation efforts.

5.3 Practical Implications

In doing so, the research establishes the need for policymakers and cultural heritage organizations to provide stewardship through capital investment and human resource development to promote the sustainability of traditional sports. Theital inheritance strategies, like designing new websites and virtual spaces, would contribute to the increased popularity of these sorts of sports. Moreover, government and preserving cultural institutions should expand productive partnerships with civil society and local communities that can support long-term preservation policies. Proposals are to allocate grants for digital initiatives, encourage crowdsourced documentation initiatives, and implement digital resources into educational settings to share sports legacy with future generations. The following are some of the useful measures that may supplement digital credible documentation that may help users and implementers embrace the sustainable preservation of traditional sports:

5.4 Challenges and Limitations

This research also had several limitations, including a small sample size and the analysis of only four case studies. Thus, the generalization of the results may be a bit off. Furthermore, the data were collected based on participants' self-reports so that the evaluation metrics could be biased. The last one is the fast pace of tech advances, which may lead to ineligibility for the preservation of employed digital tools and, therefore, ongoing susceptibility to preservation strategies. Moreover, cultural variations and geographical factors make adopting a uniform policy on digital inheritance and rational utilization difficult. Evidently, strategies required to preserve traditional

sports should be variable and are most suitable when fitted within different settings. Therefore, the best strategies should be compliant, sensitive, and sustainable.

5.5 Recommendations

Further research should investigate more participants from traditional sports and use panel studies to evaluate the durability of digital estate plans. The originality of the research could be achieved by exploring how innovative technologies like artificial intelligence and blockchain can improve preservation practices. Real-life measures that can be taken towards the improvement of preservation include the creation of comprehensive and inclusive digitized libraries, support for adequate funding voices for the preservation of cultures, and fortification of commitment to cultural exchange about sharing techniques for conservation. Also, engaging traditional sports in the curriculum influences youth to embrace practice and become conversant with them. Seeing that community engagement is key in conservation; these steps should extend initiatives to support digital documentation training. All these recommendations should be made to develop the current research findings further and ensure that traditional sports will remain a viable constituent of the assets of the IH.

CONCLUSION

6.1 Summary of Key Points

This study shows the need to incorporate digital inheritance and sustainable use for traditional sports as the cultural assemblage is evident. The results successfully prove that various digital tools enhance the amplified accessibility, interaction, and documentation of traditional sports to make these conventional sports available to a larger population. It is, therefore, important for the sustainability of these sports to engage the community and ensure economic sustainability. Kabaddi, Pato, Sumo Wrestling, and the Highland Games represent the different ways and various levels of effectiveness of incorporating digital and sustainability into the sport. In sum, Digital inheritance, coupled with sustainable utilization, gives a sound lesson on how traditional sporting events can be preserved to remain active and relevant parts of people's existence in modern society.

6.2 Future Directions

Further research should add more traditional sports from other cultures into the sample to confirm and refine the identified preservation methods. A large-scale and longitudinal study is required to evaluate digital inheritance's long-term success and versatility and the sustainable use of practices. As for wider research, definitions of liability are examined regarding emerging technologies, including artificial intelligence and blockchain, which might provide new approaches to increasing preservation practices. Also, there will be more understanding when exploring the role of collaboration and global policies in determining the success of preservation programs, which will be investigated further. The development of traditional sports' long-term perspectives underlines the imperativeness of a ceaseless development alongside community-oriented actions to contribute to the constant formation and promotion of traditional sports as a valuable part of intangible cultural heritage that continues the traditions and develops cultural diversification and intergenerational knowledge transfer.

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