



Developing a Model of Influential Factors on Sports Volunteer Tourism in Iran

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ABSTRACT

The purpose of this study is to present a model of factors influencing sports volunteer tourism in Iran. This research is mixed-methods, incorporating both qualitative and quantitative approaches. The qualitative section involved field studies with a population comprising all experts, researchers, and academic and executive authorities in the field of tourism, sports volunteering, and event management. Theoretical sampling was used to conduct interviews with 13 experts, with data saturation observed after the tenth interview, although interviews continued up to the thirteenth for greater assurance. Efforts were made to ensure that the interviewees represented all relevant individuals and organizations involved in sports volunteer tourism, and the interviews lasted between 20 to 50 minutes at the discretion of the interviewee. The quantitative section's population consisted of approximately 2000 sports volunteers who were involved as managers in global and international competitions held in Iran during the years 2020-2021. The sample size was determined to be 387 individuals. Structural equation modeling using Smart-PLS software was employed for hypothesis testing and analysis. The findings indicated that general needs of volunteer tourism, satisfaction with management practices in volunteer tourism, and the level of involvement in volunteer tourism activities significantly influence overall satisfaction with these activities in the context of sporting events. Furthermore, overall satisfaction with volunteer tourism impacts the intention to participate in future volunteer activities, the likelihood of recommending volunteer activities for sports events to others, and the intention to visit the host city of the sports event. The first question examined the impact of the general needs of volunteer tourism on overall satisfaction with activities in sports events, which showed the highest effect with a path coefficient of 0.321. Based on the results, it is recommended that managers of sporting events design an optimal work environment that can meet the psychological needs of volunteers and improve volunteer management methods to enhance the sustainability of major sporting events.

Keywords: Tourism, Volunteerism, Sports.

1. Introduction

Research indicates that an increased interest and participation in sports during leisure time and the recreation and entertainment industry have fueled people's desire to travel and volunteer in sports; since the 1980s, reliance on mega sports events and other sporting events in volunteer sports tourism has continued to grow. However, there is limited research on conceptualization; this article reviews the conceptualization of sports as it appears in existing literature and outlines pathways for the future (1, 2). "Sports Tourism" and "Volunteer Tourism." Volunteer sports tourism has seen significant growth over the past four decades; research shows that interest and participation in sports during leisure time have increased (3) and the recreation and entertainment industry has fueled people's desire to travel and volunteer in sports (4, 5). As a result, volunteer sports tourists, otherwise known as individuals traveling abroad or within their country's borders to volunteer in specific sports, have become vital to the economic success of major sporting events. Their host communities rely heavily on volunteers for large events like the Olympic and Paralympic Games, the World Cup, and other similar global sporting events, which are periodically and short-term, and are time-bound (6).

Without the participation of volunteer sports tourists, many large-scale sporting events would not be able to operate effectively or cost-efficiently on a permanent basis or long-term employment in the field of major sporting events, given the periodic nature, is rare; the nature of these events and the limited number of days they occur (7). The importance of sports volunteers in tourism and their significant impact on major sporting events necessitates a review of the literature to gain a better understanding of how volunteer sports tourism or sports tourism in relation to volunteer work has been conceptualized by researchers in the fields of leisure, sports, volunteering, tourism, etc. Research on sports tourism can be traced back to the 1980s with early research on sports tourism dedicated to the conceptualization of sports tourism (8, 9). Legacy and sports tourism, serious leisure, social identity, and sports tourism estimating the economic impact of sports tourism (10). Case studies of sports tourism events and the development of sports tourism destinations Existing research tends to rely on one or more of the following three traditional

conceptualizations of sports tourism: (1) passive sports tourism activities, active sports tourism activities, nostalgic sports tourism activities (11, 12). Volunteer sports tourism has been overlooked from the international standpoint of providing volunteer services at a major sports event; however, there is a need for further research to develop and refine the concepts of volunteer sports tourists and volunteer sports tourism. The conceptualization of volunteer sports tourism is a relatively new concept. In the process of forming organizations and society, human resources play a pivotal role and can be considered essential for any event. Each organization forms to meet a specific need. In fact, responding to a specific need becomes the main mission and philosophy of the organization's existence. This is especially apparent in governmental organizations. The better an organization can respond to this need, the higher its impact. Choosing a suitable organizational structure can guide organizations toward maximizing organizational effectiveness (13). A part of human resources in organizations consists of volunteers who, in most countries, operate as non-governmental organizations and can be effective in advancing community and organizational goals. Volunteers form an important part of many societies; many institutions and organizations are compelled to use volunteer participation to advance their organizational goals. They constitute a significant part of the human resources of many sports organizations around the world. In fact, today's sports in advanced countries of the world focus on voluntarism, which is led and promoted by many volunteers (13).

Given Iran's various geographical locations and its four seasons, volunteers can be well utilized in important global and Asian competitions held in different regions of Iran. However, before such an event occurs, given the importance of sports volunteers in the field of tourism and their significant impact on major sporting events, there is a need for further research in the areas of volunteering, tourism, and other related sub-branches to better understand how volunteer sports tourism is conceptualized by researchers. Also, considering that volunteer sports tourism is a new field in global research and no research has been conducted in Iran in this regard, it seems that there is an urgent need for comprehensive research in this area. Therefore, in this research, we seek to determine whether an effective model can be presented in volunteer sports tourism in Iran.

2. Methods and Materials

2.1. Study Design and Participants

Given that the objective of this study is to design a model of the factors influencing volunteer sports tourism, this research is classified as applied research in terms of its goal and as exploratory mixed-methods research (qualitative-quantitative) in terms of its approach. Some experts believe that combining qualitative and quantitative methods provides an appropriate framework for integrating data collection and analysis techniques of both approaches concurrently, leading to a better understanding of research issues than using each method in isolation. Due to the exploratory nature of the topic and the theoretical gap in the concepts and dimensions under study, an exploratory mixed-methods research design was utilized. Initially, a qualitative study was conducted to identify factors affecting volunteer sports tourism. In the qualitative part of the study, factors were identified through a review of theoretical foundations and research literature, as well as semi-structured interviews with experts. The findings of this phase were analyzed using thematic analysis. Subsequently, a researcher-developed questionnaire was created based on the qualitative findings and distributed among the statistical sample, followed by quantitative studies to examine the impact of identified factors on each other according to research hypotheses.

The statistical population in the qualitative part of the research (for identifying factors influencing volunteer sports tourism) includes all experts, researchers, and academic and executive authorities in the fields of tourism, volunteer sports, and sports event management. The quantitative research population includes all sports volunteers who served as general managers of sports and youth in provinces, deputy directors of provincial sports departments, federation presidents, vice presidents and secretaries, heads and deputies of district sports and youth departments, and heads, vice heads, and secretaries of provincial sports committees, who participated in international competitions held in Iran during the years 2020-2021, from 17 different sports federations. Considering the estimates made and the number of districts in Iran (451 districts), the total number was estimated to be about 2000 people.

In the qualitative phase, purposeful sampling was used, considering the characteristics of the participating

community. This method sought to select individuals who possessed the most information, knowledge, and experience relevant to the research topic. Additionally, library documents related to volunteer sports tourism also formed part of the research data; however, only sections that provided the desired data were analyzed. For this purpose, pieces relevant to research questions were first identified, screened, and then analyzed. Given that the qualitative part is based on inductive-interpretative logic and the basic and organizing themes of the model gradually take shape; the sampling method was also conducted gradually. In this method, individuals are selected progressively, meaning that at the beginning of the research, there is no precise, comprehensive, and predetermined guideline for selecting a certain number or type of participants but as the process of data collection, analysis, and categorization progresses, it becomes clear who and how many should be consulted. In other words, previous data analysis influences decision-making regarding what data should be collected next, and the researcher simultaneously collects, codes, and analyzes data, deciding about future data collection and its location; thus, after each interview, the audio file is transcribed, coded, and categorized, then based on the guidance from previous interviews, subsequent members for interviews are selected. This sampling method, used in qualitative research, is called theoretical sampling, and interviews were conducted with 13 experts using this approach. In this research, the sufficiency criterion for participants in the qualitative part (the qualitative sample) is data saturation from interviews, which was achieved after the tenth interview, but for more assurance, the researcher continued until the thirteenth interview. To select individuals for the interview, an effort was made to ensure the dispersion of individuals in such a way that representatives of all relevant individuals and organizations in the field of volunteer sports tourism were included, and interviews lasted between 20 to 50 minutes at the discretion of the interviewee.

For sampling in the quantitative part of the research, convenience sampling was used. In structural equation modeling, various claims exist regarding the ratio of sample size to items, ranging from a very large ratio of 10 to 1 (item) to a minimum required ratio of 2 to 1 (item) (Kalantari, 2009). In this research, based on the number of questionnaire items (62), the sample size was estimated to be between 124

to 620, with a minimum of 2 times and a maximum of 10 times the number of items. However, since the larger the sample size in structural equation modeling, the more accurate and precise the results (Esfidani, 2014), out of 410 distributed questionnaires, after discarding invalid ones, 387 questionnaires were analyzed.

2.2. Measures

2.2.1. Semi-Structured Interview

In the qualitative part of the research, to extract theoretical foundations and research history, while using online library methods and searching databases, 13 experts and knowledgeable academic professors related to the topic participated in 13 semi-structured interviews, each lasting between 20 to 50 minutes. Immediately after each interview, the audio files were transcribed, and coding was conducted using thematic analysis to achieve the research objectives. Interview questions included: - What do you think are the needs of volunteers in sports tourism? - Is managing volunteers in sports tourism important? - What factors do you think are crucial for volunteer satisfaction? - What factors do you think can encourage people to participate in volunteer tourism activities? - Do you believe that individuals who volunteer at a sports event can invite others to participate as volunteers in future events? What factors might cause this? - What factors do you think cause a person to participate in future volunteer events? - What factors do you think cause people to participate in volunteer sports tourism activities?

2.2.2. Researcher-Made Questionnaire

The tool used in the quantitative part of the research was a researcher-developed questionnaire, which was derived from the analysis of interviews conducted in the qualitative part and library studies in this field. The questionnaire consists of two parts. The first part includes demographic

questions such as age, gender, educational level, and marital status, and the second part includes 62 questions related to factors influencing volunteer sports tourism, including general needs of volunteer tourism with 19 questions, satisfaction with management methods of volunteer tourism with 25 questions, overall satisfaction with volunteer tourism with 4 questions, intention to volunteer in the future with 4 questions, intention to recommend volunteering with 4 questions, intention to revisit with 2 questions, and level of involvement in volunteer tourism activities with 4 questions. The questionnaire was rated using a 5-point Likert scale from 1= strongly disagree to 5= strongly agree.

3. Findings and Results

The demographic characteristics analysis in the qualitative section of the study revealed that there were 9 male participants and 4 female participants; 8 participants held doctoral degrees and 5 held master's degrees. Additionally, 8 of them specialized in sports management, and 2 in general management.

The qualitative part of this study was conducted with the participation of 13 experts, professors, and knowledgeable individuals related to the topic through 13 semi-structured interviews. After each interview, the audio files were transcribed and coded using a thematic analysis approach to achieve the research objectives. The coding was conducted in three stages: coding of basic themes, organizing themes, and comprehensive themes. Initially, the textual data were examined considering the research objectives, and the basic codes and themes were identified. Subsequently, the identified themes with consistent concepts or semantic convergence were merged to form the organizing themes and then the comprehensive theme.

Table 1 shows the basic, organizing, and comprehensive themes of the factors influencing volunteer sports tourism.

Table 1

Basic, Organizing, and Comprehensive Themes of Factors Influencing Volunteer Sports Tourism

Basic Themes	Organizing Themes	Comprehensive Themes
Need for ownership of one's behavior, acting with a sense of will, need for personal choice opportunities, need for autonomy in activities, need to reduce relations with managers and hierarchy, need for the ability to make independent decisions about assigned tasks, need to set priorities, plan and manage time and tasks independently, need for encouragement and praise from other volunteers and coordinators to perform tasks, recognition as an expert in the field, need for managerial acknowledgment of individual skills and expertise, need for guidance from coordinators to perform better, need to create positive and effective relationships with other volunteers, need for a collaborative spirit and participation in teamwork, need to receive and share experiences from others, need for feedback from others, need for control	General Volunteer Tourism	Needs of Sports Volunteer Sports Tourism
Adaptation of training programs to volunteers' needs and expectations, satisfaction with educational content and presented materials, satisfaction with instructors' teaching, appropriateness of equipment and technologies used in training, satisfaction with the physical training environment, diversity of topics and contents offered in training courses, satisfaction with training packages offered such as brochures and electronic content, support after training, use of educational techniques like role-playing for better skill learning, alignment of assigned tasks and missions with volunteers' skills, alignment of tasks with volunteers' values, consideration of volunteers' interests in task distribution, flexibility of missions in terms of timing, appropriate and effective interactions and communications in task execution, satisfaction with assigned tasks as a way to progress and advance, balance between tasks and personal life, efficient and effective allocation of human resources (volunteers), satisfaction with transportation, satisfaction with meals, satisfaction with accommodation, satisfaction with volunteer insurance coverage, satisfaction with job continuity, satisfaction with the necessary space and equipment for work, satisfaction with workplace cleanliness, satisfaction with safety and security of the work environment, satisfaction with the provided welfare facilities, satisfaction with uniform clothing provided for volunteers	Satisfaction with Management Methods of Volunteer Tourism	
Gaining memorable experience from participating in volunteer activities, gaining facilities for future use, opportunity to nurture undiscovered talents, overall satisfaction from the volunteering experience, gaining work experience, increasing general and specialized literacy, acquaintance with tourist destinations of the event, contributing to cultural exchange, contributing to the development of tourist destination resources and reducing poverty in the target destination, contributing to the economic progress of the target region, contributing to sustainable development goals and environmental conservation, optimal use of leisure time, gaining credibility and independence, gaining an opportunity to recognize strengths and weaknesses	Overall Satisfaction with Volunteer Tourism	
Enhancing skills, social responsibility and assisting the community, personal advancement and development, increasing the spirit of voluntarism, feeling of meaning and value, feeling of being useful and self-satisfaction, impacting the community, developing personal and inner values, increasing self-confidence, familiarity with the local culture of the host community, feeling of pride and honor, gaining work experiences for the future, receiving material facilities and rewards, access to skill opportunities, recognition and encouragement, gaining a reputation, utilizing facilities and benefits of the event, enhancing social status, social interactions and engagements	Intention to Volunteer	
Sharing videos and photos related to volunteer activities on social media, talking about the benefits of participating in volunteer tourism activities, acquainting others with the culture and customs of the destination, encouraging others to participate in volunteer activities, creating a positive image of volunteer tourism in the minds of others, word-of-mouth advertising	Intention to Recommend Volunteering	
Good memories from previous events, satisfaction with the organization and execution of previous events, satisfaction with welfare matters of previous events, special and attractive experiences, positive connection with participants, revisiting local individuals, personal interest in volunteering, interest in sharing in the organization of upcoming events, achieving personal goals in events, interest in testing and challenging oneself, learning and advancement, social responsibility and intention to help in future events, appropriate advertising and marketing, receiving post-sale services from tourists in previous events, adoption of incentive policies	Intention to Revisit	
High commitment to performing tasks, becoming close with local people, learning the language or dialect of local people, helping the event beyond one's duties, flexibility and adaptation to different conditions, high motivation and enthusiasm, participation in voluntary and extracurricular activities, active participation in group decision-making, accepting leadership roles in the group, active participation in training courses, sensitivity in correctly performing assigned tasks, interest in understanding the culture and history of the destination	Level of Involvement in Volunteer Tourism Activities	

As [Table 1](#) illustrates, a total of 110 basic themes, 7 organizing themes, and 1 comprehensive theme, which is the main subject of the research, volunteer sports tourism, were derived.

According to [Table 2](#) for all variables of the research, the statistical indicators are as described in the following table.

Table 2

Descriptive Statistics for Research Variables

Variable	Abbreviation	Observations	Minimum	Maximum	Mean	Standard Deviation	Variance
General Needs of Volunteer Tourism	A	387	1.21	4.74	2.8718	.64460	.416
Satisfaction with Management Methods of Volunteer Tourism	B	387	1.16	5.00	3.0449	.72149	.521
Overall Satisfaction with Volunteer Tourism	C	387	1.00	5.00	2.8857	.87422	.764
Intention to Volunteer	D	387	1.00	5.00	2.9341	.98755	.975
Intention to Recommend Voluntarily	E	387	1.00	5.00	3.2267	1.04904	1.100
Intention to Revisit	F	387	1.00	5.00	3.0401	1.10185	1.214
Level of Involvement in Volunteer Tourism Activities	Z	387	1.00	5.00	2.9580	1.16832	1.365

For instance, for the variable "General Needs of Volunteer Tourism" (A), the minimum score was 1.21, and the maximum was 4.74, with a mean and standard deviation of 2.8718 and .64460, respectively.

To assess model fit, we utilize measurement model fit, structural model fit, and overall model fit.

To examine the reliability of the measurement model, we assess the factor loadings, Cronbach's alpha coefficients, and composite reliability.

Table 3

Factor Loadings Table

Factor	Index	Factor Loading
General Needs of Volunteer Tourism	A1	0.412
	A2	0.904
	A3	0.598
Satisfaction with Management Methods of Volunteer Tourism	B1	0.723
	B2	0.679
	B3	0.549
Overall Satisfaction with Volunteer Tourism	C1	0.878
	C2	0.873
	C3	0.909
	C4	0.923
Intention to Volunteer	D1	0.912
	D2	0.933
	D3	0.856
	D4	0.811
Intention to Recommend Voluntarily	E1	0.886
	E2	0.832
	E3	0.884
	E4	0.886
Intention to Revisit	F1	0.900
	F2	0.980
Level of Involvement in Volunteer Tourism Activities	Z1	0.889
	Z2	0.932
	Z3	0.966
	Z4	0.921

The criterion value for appropriate factor loadings is greater than 0.4. In Table 3, all factor loading coefficients are above 0.4, indicating the appropriateness of this measure.

Table 4

Results for Cronbach's Alpha and Composite Reliability for Latent Variables

Latent Variables	Abbreviation	Cronbach's Alpha (Alpha>0.7)	Composite Reliability (CR>0.7)
General Needs of Volunteer Tourism	A	0.768	0.799
Satisfaction with Management Methods of Volunteer Tourism	B	0.731	0.790
Overall Satisfaction with Volunteer Tourism	C	0.918	0.942
Intention to Volunteer	D	0.905	0.931
Intention to Recommend Voluntarily	E	0.895	0.927
Intention to Revisit	F	0.899	0.910
Level of Involvement in Volunteer Tourism Activities	Z	0.916	0.941

Given that the suitable value for Cronbach's alpha and composite reliability is 0.7, and according to the findings in Table 4, these metrics have adopted suitable values for the latent variables, confirming the appropriateness of the research's reliability status.

The second criterion in the assessment of measurement models is convergent validity, which examines the extent of correlation of each construct with its associated items (indicators).

Table 5

Convergent Validity Results for Latent Variables

Latent Variables	Abbreviation	Average Variance Extracted (AVE > 0.5)
General Needs of Volunteer Tourism	A	0.448
Satisfaction with Management Methods of Volunteer Tourism	B	0.429
Overall Satisfaction with Volunteer Tourism	C	0.803
Intention to Volunteer	D	0.773
Intention to Recommend Voluntarily	E	0.760
Intention to Revisit	F	0.999
Level of Involvement in Volunteer Tourism Activities	Z	0.860

Figure 1

Model with Standard Coefficients

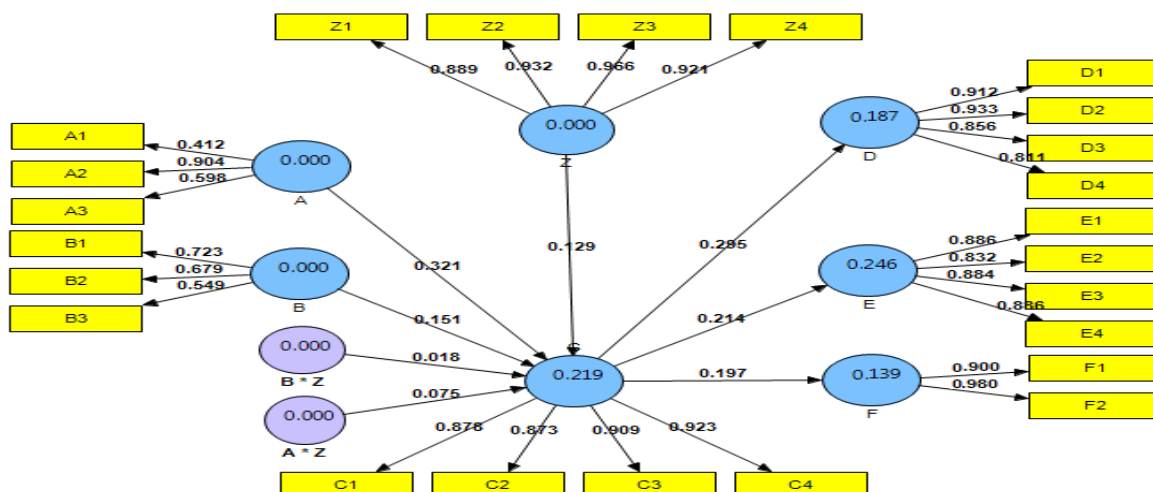
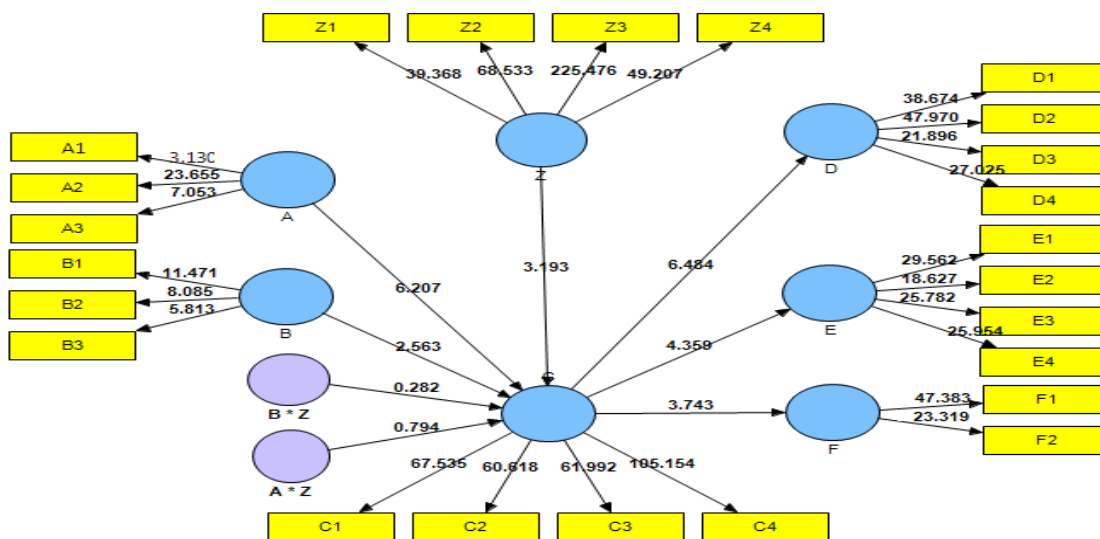


Figure 2

Model with T-Values



Given that the appropriate value for AVE is 0.5, and according to the findings in Table 5, this criterion has been adequately met for the latent variables, thus confirming the appropriateness of the research’s convergent validity.

Significance Coefficients (t-values) are considered according to Figure 2. Since the t-values for the seventh and eighth hypotheses are less than 1.96, their significance is not confirmed at the 95% confidence level. However, for the remaining hypotheses, since the t-values are greater than 1.96, their significance at the 95% confidence level is confirmed.

The R Squares (R2) criterion is the second measure for assessing the fit of the structural model in a study. It relates to the dependent (endogenous) latent variables of the model. R2 is a measure that indicates the impact of an exogenous variable on an endogenous variable and considers 0.19, 0.33, and 0.67 as criterion values for weak, medium, and strong R2 values, respectively. According to Figure 1, the R2 values for the endogenous constructs of the research have been calculated, which, based on the three criterion values, can confirm the suitability of the structural model fit.

Table 6

Communality and R2 for Research Variables

Latent Variables	Abbreviation	Communality	R2
General Needs of Volunteer Tourism	A	0.448	-
Satisfaction with Management Methods of Volunteer Tourism	B	0.429	-
Overall Satisfaction with Volunteer Tourism	C	0.803	0.219
Intention to Volunteer	D	0.773	0.187
Intention to Recommend Voluntarily	E	0.760	0.246
Intention to Revisit	F	0.999	0.139
Level of Involvement in Volunteer Tourism Activities	Z	0.860	0.000

The Goodness of Fit (GOF) criterion is used to examine the overall model fit, introduced with values of 0.01, 0.25, and 0.36 representing weak, medium, and strong GOF, respectively.

This criterion is calculated using the following formula:

$$GOF = \sqrt{\text{communalities} \times R^2}$$

With a GOF value of 0.379, the overall model fit is very appropriately confirmed.

Table 7

Direct Relationships and Significance Coefficients of Subsidiary Model Questions

Question	Causal Relationships between Research Variables	Abbreviation	Path Coefficient (β)	Significance (T-Value)	(T-Test Outcome)
First	General Needs of Volunteer Tourism to Overall Satisfaction with Volunteer Tourism	A --- C	0.321	6.207	Confirmed
Second	Satisfaction with Management Methods of Volunteer Tourism to Overall Satisfaction with Volunteer Tourism	B --- C	0.151	2.563	Confirmed
Third	Level of Involvement in Activities in Volunteer Tourism to Overall Satisfaction with Volunteer Tourism	Z --- C	0.129	3.193	Confirmed
Fourth	Overall Satisfaction with Volunteer Tourism to Intention to Volunteer	C --- D	0.285	6.484	Confirmed
Fifth	Overall Satisfaction with Volunteer Tourism to Intention to Recommend Voluntarily	C --- E	0.214	4.359	Confirmed
Sixth	Overall Satisfaction with Volunteer Tourism to Intention to Revisit	C --- F	0.197	3.743	Confirmed
Seventh	Moderator Variable A*Z to Overall Satisfaction with Volunteer Tourism	A*Z --- C	0.075	0.794	Rejected
Eighth	Moderator Variable B*Z to Overall Satisfaction with Volunteer Tourism	B*Z --- C	0.018	0.282	Rejected

This Table 7 provides a detailed view of the test outcomes based on the direct relationships and the significance of the path coefficients for the subsidiary questions of the model.

Question 1: Does the general need for volunteer tourism influence the overall satisfaction of their activities in sports events?

It is observed that the standardized coefficient (path coefficient) between the two variables (general need for volunteer tourism and overall satisfaction of activity) is $\beta = 0.321$. The significance coefficient (t-statistic) between these two variables is $t = 6.207$ (greater than the absolute value of 1.96), indicating significance. Therefore, it can be concluded that the general need for volunteer tourism impacts the overall satisfaction of activities.

Question 2: Does satisfaction with management methods of volunteer tourism influence the overall satisfaction of their activities in sports events?

As observed, the standardized coefficient (path coefficient) between the two variables (satisfaction with management methods of volunteer tourism and overall satisfaction of activity) is $\beta = 0.151$. The significance coefficient (t-statistic) between these two variables is $t = 2.563$ (greater than the absolute value of 1.96), which indicates significance. Therefore, it can be concluded that satisfaction with management methods of volunteer tourism influences the overall satisfaction of activities.

Question 3: Does the level of involvement in volunteer tourism activities influence the overall satisfaction of their activities in sports events?

As observed, the standardized coefficient (path coefficient) between the two variables (level of involvement in volunteer tourism activities and overall satisfaction of activity) is $\beta = 0.129$. The significance coefficient (t-statistic) between these two variables is $t = 3.193$ (greater than the absolute value of 1.96), indicating significance. Therefore, it can be concluded that the level of involvement in volunteer tourism activities impacts the overall satisfaction of activities.

Question 4: Does overall satisfaction from volunteer tourism influence the intention to engage in volunteer activities in the future for sports events?

As observed, the standardized coefficient (path coefficient) between the two variables (overall satisfaction from volunteer tourism and the intention to engage in volunteer activities) is $\beta = 0.285$. The significance coefficient (t-statistic) between these two variables is $t = 6.484$ (greater than the absolute value of 1.96), indicating significance. Therefore, it can be concluded that overall satisfaction from volunteer tourism influences the intention to engage in future volunteer activities.

Question 5: Does overall satisfaction from volunteer tourism influence the intention to recommend volunteer activities for sports events to others?

As observed, the standardized coefficient (path coefficient) between the two variables (overall satisfaction from volunteer tourism and the intention to recommend volunteer activities) is $\beta = 0.214$. The significance coefficient (t-statistic) between these two variables is $t = 4.359$ (greater than the absolute value of 1.96), which indicates significance. Therefore, it can be concluded that overall satisfaction from volunteer tourism influences the intention to recommend volunteer activities for sports events to others.

Question 6: Does overall satisfaction from volunteer tourism positively influence the intention to visit the host city of the sports event?

As observed, the standardized coefficient (path coefficient) between the two variables (overall satisfaction from volunteer tourism and the intention to visit the host city of the sports event) is $\beta = 0.197$. The significance coefficient (t-statistic) between these two variables is $t = 3.743$ (greater than the absolute value of 1.96), which indicates significance. Therefore, it can be concluded that overall satisfaction from volunteer tourism positively affects the intention to visit the host city of the sports event.

Question 7: Does the level of involvement in volunteer tourism activities modulate the impact of general needs of volunteer tourism on overall satisfaction from volunteer tourism?

The significance coefficient (Z-value) for the moderator variable A*Z aimed at overall satisfaction from volunteer tourism is 0.794, which is less than 1.96, indicating that at the 95% confidence level, the impact of the level of involvement in volunteer tourism activities as a moderating variable is not confirmed. In other words, at the 95% confidence level, it can be confirmed that the level of involvement in volunteer tourism activities does not modulate the impact of general needs of volunteer tourism on overall satisfaction from volunteer tourism.

Question 8: Does the level of involvement in volunteer tourism activities modulate the impact of satisfaction from management methods of volunteer tourism on overall satisfaction from volunteer tourism?

The significance coefficient (Z-value) for the moderator variable B*Z aimed at overall satisfaction from volunteer tourism is 0.282, which is less than 1.96, indicating that at the 95% confidence level, the impact of the level of

involvement in volunteer tourism activities as a moderating variable is not confirmed. In other words, at the 95% confidence level, it can be confirmed that the level of involvement in volunteer tourism activities does not modulate the impact of satisfaction from management methods of volunteer tourism on overall satisfaction from volunteer tourism.

4. Discussion and Conclusion

The results of this study showed that the general needs of volunteer tourism impact the overall satisfaction of their activities in sports events. These findings align with the prior research (14-16). Kim et al. (2019) demonstrated that fulfilling volunteers' general needs, which is achieved by meeting needs for autonomy, competence, and relatedness during volunteer work, plays a crucial role in overall volunteer satisfaction. These findings are consistent with Deci and Ryan's (2000) Self-Determination Theory, highlighting the importance of these three basic needs in intrinsically motivated behaviors (such as volunteering). Specifically, the results suggest that satisfying the needs for autonomy and relatedness significantly reflects the fulfillment of volunteers' general needs in their activities, and thus, meeting these needs can significantly enhance overall volunteer satisfaction. Indeed, fulfilling the need for autonomy is considered the most critical aspect of self-determined behaviors and a primary motivational dimension for volunteers in sports events (14).

In explaining these findings, it can be said that by participating in volunteer tourism and traveling to new areas, individuals can meet their needs in various fields. These needs include cultural, social, educational, and even environmental protection. In this context, volunteer tourists often seek unique experiences in different cities and regions, enhancing their overall satisfaction. Participating in sports events also involves recreational and entertaining activities that increase volunteers' motivation and morale. Moreover, participating in sports events creates positive social connections among volunteer tourists, which may produce a positive and memorable experience. Additionally, interaction with the natural and cultural environment of different areas allows volunteers to become more familiar with their surroundings, potentially enhancing their appreciation of cultural and environmental values. Volunteer

tourism also includes the possibility of social balance and harmony in different regions, creating a positive connection between travelers and host communities. Ultimately, the experiences gained from volunteer tourism and participation in sports events affect individuals' motivation and confidence, and this positive impact may remain sustainable for a long time. Sports events, by offering a variety of activities and exciting competitions, benefiting from extensive communities and cognitive and participatory opportunities, can help improve overall volunteer tourist satisfaction in the field of tourism experience. These activities also create positive memories and enhance positive feelings among tourists, thereby significantly impacting their overall satisfaction. Moreover, volunteer tourist participation in sports events can serve as an effective measure in enhancing tourism experience and their satisfaction.

Another finding of this study indicated that satisfaction with volunteer tourism management methods impacts the overall satisfaction of their activities in sports events. The results of this study are in line with the prior findings (1, 2, 14, 15, 17). Management methods in volunteer tourism reflect the strategic planning of sports event managers and are designed actions to enhance performance and job efficiency of volunteers. Therefore, this aspect is important for successful sports events from the perspective of event managers and sports organizations. Kim et al. (2019) showed that such planning and strategic actions are also important for overall volunteer satisfaction. In this respect, this aspect can be seen as a mutual benefit both for volunteers and for sports event managers. Various studies have shown that volunteer management methods, such as job training, job fit, and work environment, can affect overall job satisfaction (14). For instance, job training refers to a systematic training program designed to help trainees develop positive attitudes and gain knowledge and skills for a specified job. Job training plays a crucial role in successfully managing sports events. Previous studies have reported that job training also plays an important role in overall job satisfaction (18).

In explaining this finding, it can be said that one of the management methods of volunteer tourism is to enhance communication and positive interaction with volunteer tourists. Improving communication with tourists and utilizing their feedback about sports events strengthens their

sense of participation and direct connection with organizations and event organizers, thereby enhancing their overall satisfaction. On the other hand, management methods of volunteer tourism are influenced by the level of enhancement of experience and satisfaction from participation in sports events. Another management method of volunteer tourism is providing comprehensive and accurate information about sports events. Complete and correct information allows volunteer tourists to become familiar with the conditions and facilities available before participating in the event, improving their overall satisfaction. However, management methods of volunteer tourism should focus on meeting the basic and distinctive needs of tourists, which leads to an increase in their overall satisfaction from participating in sports events. Management methods of volunteer tourism should also pay attention to promoting safety and health at sports events because offering related programs and training to tourists can create a greater sense of security and satisfaction. Management methods of volunteer tourism should respect and pay attention to the local environment and culture; local values and customs should be respected and valued, which will increase the overall satisfaction of tourists from sports events. Attention should be paid to improving the quality of services provided to tourists at every stage of participation in sports events. Such services include guidance, support, and providing facilities. It should be done through the evaluation and feedback of tourists from sports events, identifying problems and needs, and making necessary improvements that will increase their overall satisfaction. Managerial actions to increase the quality of services and enhance the volunteer tourists' experience at sports events can improve their satisfaction. Such actions may include improving facilities, order and discipline at events, and enhancing welfare services, allocating appropriate resources and infrastructure for managing volunteer tourism, and improving the level of services to tourists can enhance their overall satisfaction in the field of sports events and through enhancing communication and interactions between tourists and hosts at sports events can enhance their overall satisfaction from joint activities. It can be said that through promoting sports events and attracting volunteer tourists from around the world, management methods of volunteer tourism can increase the number of participants and consequently

improve the overall satisfaction of activities and enhance coordination and cooperation between officials involved in managing volunteer tourism and sports events will be able to improve the experience and overall satisfaction of tourists from activities. Encouraging and rewarding tourists to actively participate in sports events will increase their commitment and improve the overall satisfaction of activities and also enhance access to facilities and services at sports events to tourists, meeting various tourist needs including welfare, nutrition, and accommodation at sports events, will increase their overall satisfaction from participation in these events. Now that through the provision of programs and recreational activities to tourists, increasing their overall satisfaction from participation in sports events will follow. Enhancing communication and interactions between tourists and hosts at sports events, paying attention to the opinions and criticisms of tourists, and making necessary improvements based on their feedback, enhancing flexibility in planning and implementing sports events, will accompany the enhancement of their overall satisfaction from joint activities. On the other hand, if efforts are made to enhance the sense of belonging and participation in tourists through the provision of opportunities for active and democratic participation in sports events, this will increase their overall satisfaction.

The results of this study indicated that the level of engagement in volunteer tourism activities affects the overall satisfaction of their activities in sports events. The findings are inconsistent with the prior research by Kim et al. (2018) but align with some prior results (2, 3, 5, 6, 13, 14, 19-26). Higher levels of engagement enhance tourists' connections to sports events, encouraging them to participate more actively and enthusiastically. Furthermore, volunteer tourists who are more involved in sports activities experience a greater sense of achievement and enjoy the positive outcomes, which enhances their sense of value and impact in life. Additionally, greater involvement in volunteer sports activities encourages tourists to experience a wider variety of sports events, positively affecting their overall satisfaction. Volunteer tourists with higher levels of engagement are likely to have better experiences in socializing and connecting with other tourists, make more use of facilities and services related to sports events—ensuring improved overall satisfaction—and more active

participation in sports events likely increases their self-efficacy and confidence, which enhances their overall satisfaction. Full engagement and activity in sports events create a sense of depth in the experience for volunteer tourists, which can lead to increased overall satisfaction. Active participation in sports activities allows tourists to actively engage in the experience and enjoy moments filled with excitement and emotional transformations, thereby enhancing their overall satisfaction. The level of engagement is directly related to a sense of participation and active interaction with the environment and sports events; this direct interaction provides a delightful experience for tourists, increases their commitment and motivation to participate actively in sports events, and can increase their commitment and motivation to participate actively in sports events. Active participation in sports events can give tourists a deeper connection to the environment and the culture of the destination, and this deep connection provides a better experience for them and consequently increases their overall satisfaction. Active participation in sports events provides tourists with opportunities to experience the diversity and attractions of the new environment, which will strengthen their overall satisfaction. The level of direct involvement with sports activities can encourage tourists to participate more actively in local communities and destination events, and this participation helps to increase their overall satisfaction. Active and enthusiastic involvement of tourists in sports events provides a positive and enjoyable experience for them and improves their overall satisfaction. The level of involvement of tourists in volunteer activities in sports events can create a deeper experience for them, allowing direct interaction with athletes and close observation of competitions, and give their performance to tourists, which can remain as a fortunate and special memory for them, also have a greater impact on their behaviors and motivations in sports events and create better overall satisfaction, give rise to a closer connection with the event, the venue, athletes, and other tourists, and establish more social connections, which can facilitate improvements in their overall satisfaction. Also, an active participation experience in sports events can give tourists a positive feeling of participation and individual achievements, and this feeling can lead to an enhancement of their overall satisfaction from activities. Finally, the level of involvement of tourists in volunteer tourism activities

with sports events is directly related to their overall satisfaction and serves them with richer cultural and social experiences.

The results from this study indicated that overall satisfaction with volunteer tourism affects the intention to perform volunteer activities in the future for sports events. The results are consistent with the findings from prior studies (2, 5, 6, 14, 25). This shows that overall satisfaction with volunteer tourism significantly and positively affects the intention to engage in future volunteer activities for sports events. Also, overall tourist satisfaction from the volunteer tourism experience and participation in sports events is considered an effective factor in their decision-making for future volunteer activities. Positive experiences of tourists from volunteer tourism in sports events create an interest and motivation for them to participate in future volunteer activities and facilitate an improvement in their intention to participate in the future. Overall tourist satisfaction from volunteer experiences conveys a positive feeling of their experience and impact in sports events to them, and this positive feeling can serve as a motivation for more involvement in future volunteer activities, strengthen a positive feeling about themselves and their social participation, and this feeling can be an effective motivational factor for participation in future volunteer activities, be considered as an effective factor in their decision-making for participation in sports events, create a closer connection with sports events, athletes, and other participants, and establish more social connections, which can facilitate an improvement in their intention to participate in future sports events, significantly and positively affect the intention to perform volunteer activities in the future for sports events, serve as a stimulating factor for decision-making for participation in volunteer activities related to sports events, strengthen a positive connection with the venue of sports events, and this positive connection can encourage tourists to return and participate in future volunteer activities with more appeal and value, have an impact on their behavior and decision-making in the future, and a positive experience from volunteer tourism can encourage tourists to engage in volunteer activities in the future for sports events and create an improvement in their intention and motivation, lead to the formation of an internal and lasting motivation for participation in future volunteer

activities, and a positive experience from volunteer tourism can compel tourists to commit and participate more actively in sports events, also significantly and positively affect the intention to perform volunteer activities in the future for sports events, and there is a direct relationship between overall satisfaction from the volunteer tourism experience and the will to participate in volunteer activities in sports events, can have a greater impact on shaping the future motivation of tourists to participate in volunteer activities in sports events if positive experiences in the past can encourage tourists to continue volunteer activities in the future and enjoy these experiences, create a positive feeling towards sports events and volunteer activities in tourists, which this positive feeling leads to a driving force and inspiration for carrying out future volunteer activities, can play a key role in tourists' decision-making for participation in sports events, also create a better understanding of the importance of volunteer activities and participation in sports events in tourists, which this better understanding causes better decision-making and more effective choices in the future. Overall, overall tourist satisfaction from volunteer experiences can be a motivating factor for participation in future volunteer activities in the field of sports events and have a positive and significant effect on this enhancement of intention and decision-making.

The findings of this study also revealed that overall satisfaction with volunteer tourism affects the intent to recommend volunteer activities for sports events to others. These results are consistent with prior studies (14, 27). Word-of-mouth promotion by volunteers to recommend volunteer activities to others has significant implications for sports event managers as it results in various outcomes such as raising awareness, knowledge, and persuading others to participate in volunteer activities (25). Generally, people begin to promote a destination, an act, a product, etc., when they are fully satisfied with it and have had a successful experience with it in the past. People who are satisfied with participating in volunteer tourism tend to convey this positive experience to others and often talk about the benefits of volunteer activities, the conditions of the volunteering location, and their own experience from these activities. Specifically, this act (word-of-mouth promotion) by a family member, relative, or close friend, serves as a significant incentive for them to volunteer in subsequent

events. Parker and colleagues argued that when potential volunteers hear positive opinions from current volunteers, they are more likely to participate in volunteer activities. Weisner and his colleagues also believed that volunteer satisfaction positively correlates with the intention to recommend volunteer activities in non-profit organizations to friends and acquaintances (14).

Explaining this finding, it can be said that overall satisfaction from the volunteer tourism experience can act as a driving force for recommending and introducing volunteer activities to others and have a positive and significant impact on this intention. Such that a positive and enjoyable experience from volunteer tourism can motivate tourists to recommend and introduce future volunteer activities more eagerly, and encourage tourists to share their experiences and recommendations of volunteer activities with others, which can help in networking and enhancing social connections. A positive experience from volunteer tourism strengthens the sense of social responsibility and community involvement in tourists. On the other hand, a good experience can encourage tourists to recommend and introduce volunteer activities to others and serve as a way to participate more actively and beneficially in sports events.

Results from this study also showed that overall satisfaction with volunteer tourism positively affects the intention to visit the host city for a sports event. These results are somewhat consistent with the findings from prior studies (7, 14, 17, 18, 26-29). Satisfaction is defined as a cumulative product of discrete experiences concerning a targeted activity (14). In the social sciences literature, the concept of satisfaction is widely used to explain and predict various human behaviors. The widespread use of satisfaction as a predictor of human behaviors is because people decide based on diverse information, and their evaluation of previous experiences acts as a powerful informational cue for their decision-making (4, 5). For example, the consumer learning theory suggests that individuals tend to estimate the quality of future consumption experiences based on past consumption experiences. This proposition indicates that positive experiences in a specific behavior serve as a diagnostic cue for estimating the capacity (i.e., positive or negative) of future experiences, thus motivating (or demotivating) individuals to perform a particular behavior in the future, depending on the circumstances. In line with this

concept, volunteers for sports events are likely to participate in future volunteer activities when they are satisfied with their past volunteer activities. Indeed, numerous studies have shown that volunteer satisfaction is a strong predictor for participation in future volunteer activities (23, 24).

Results from this study indicated that the level of involvement in volunteer tourism activities does not moderate the effect of general needs of volunteer tourism on overall satisfaction with volunteer tourism. The results are inconsistent with the findings from prior studies (2, 5, 6, 14, 25). The reason for this inconsistency might be due to differences in the research context or cultural differences among the participants in these studies. Proper management practices such as suitable accommodation for volunteers, respecting volunteers, and seeking feedback from volunteers can contribute to the overall satisfaction with volunteer tourism. In summary, the level of involvement in volunteer tourism activities does not moderate the management practices of volunteer tourism on overall satisfaction with volunteer tourism, and each of these factors can independently influence the experience of tourists and ultimately their overall satisfaction.

Suggestions for future researchers include: (1) identifying and conceptualizing the characteristics of sports volunteer tourism, (2) recognizing the characteristics of sports volunteers, (3) distinguishing the different types of sports volunteer tourism, and (4) determining the distinct types of sports volunteer tourists.

Authors' Contributions

S.V.H. initiated and supervised the research project, contributed to the design of the study, and played a key role in the qualitative data collection process. T.B., the corresponding author, led the development of the research model, conducted the quantitative data analysis, and was responsible for drafting and revising the manuscript. Z.A.F. participated in the qualitative data analysis, provided input into the theoretical framework, and contributed to the interpretation of the findings. A.A. assisted in the coordination of interviews, data collection from sports volunteers, and contributed to the discussion of the results. All authors critically reviewed the manuscript, provided intellectual input, and approved the final version for publication.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethics Considerations

The study placed a high emphasis on ethical considerations. Informed consent obtained from all participants, ensuring they are fully aware of the nature of the study and their role in it. Confidentiality strictly maintained, with data anonymized to protect individual privacy. The study adhered to the ethical guidelines for research with human subjects as outlined in the Declaration of Helsinki.

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