

# Analysis of Changes in Participation Motivation Among University Student Volunteers at the China Open Based on Self-Determination Theory

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Abstract: This study explores the dynamic changes in motivation of student volunteers from Beijing Hotel College to participate in the China Open tennis tournament, based Self-Determination Theory (SDT). Through semi-structured interviews with 18 students who had engaged in volunteer services, the research identifies significant variations in motivation across different stages of service. In the initial phase, volunteers are primarily driven by intrinsic motivation and identified regulation, reflecting their interest in the activities and aspirations for professional development. service progresses, environmental and social factors influence shifts in motivation, with some volunteers experiencing an increase in intrinsic motivation, while others exhibit controlled motivation. After the service concludes, volunteers adjust their motivation through self-assessment; some maintain a high level of intrinsic motivation, while others display amotivation due to a decline in their recognition of the activity's value. The findings indicate that the changes in volunteer motivation are influenced by multiple factors. Therefore, managers should balance intrinsic needs with external incentives in the design of volunteer service programs to enhance volunteers' sense of involvement and satisfaction.

**Keywords:** Self-determination Theory; Volunteer Service; Motivation Change; China Open

# 1. Introduction

Since its establishment in 2004, the China Open has become an integral part of international tennis events. Volunteers play a crucial role in the event by providing service

support and promoting tennis Volunteer service is not only essential for the smooth execution of the event but also offers valuable social practice opportunities for the volunteers themselves [1]. Over the past decade, the volunteer team for the China Open has grown to approximately 1,000 individuals annually. covering various operational undertaking departments and responsibilities such as player services, media promotion, and competition data statistics [2]. Since 2014, students from Beijing Hospitality Institute (BHI) have participated in volunteer services for the China Open, with over a hundred students volunteering during the National Day holiday each year. Starting in 2018, BHI integrated this initiative into its curriculum, ensuring that students acquire the standards and skills necessary for high-level event services through systematic training. This practice not only provides students with invaluable practical experience but also significantly enhances their organizational, communication, and adaptability skills.

This study is based on Self-Determination Theory (SDT) and hypothesizes that the motivations of BHI students undergo dynamic changes during the volunteer service process. Deci & Ryan [3] proposed that motivation can be categorized into Intrinsic and Extrinsic types, where intrinsic motivation arises from an individual's interest in the activity itself, while extrinsic motivation is driven by external rewards or pressures. Throughout stages of volunteer volunteers' motivations may fluctuate due to changes in social factors [4]. This research will examine the variations in these motivations during the initiation, execution, and conclusion phases of service, and their impact on future willingness to engage in volunteer activities, thereby providing theoretical support for



volunteer management and training and promoting the development of volunteer services.

#### 2. Literature Review

Based on the Manual on the Measurement of Volunteer Work, the International Labour Organization (ILO) defines volunteer service as "unpaid and non-compulsory work; that is, activities undertaken by individuals who voluntarily dedicate time, either through an organization or directly for others outside their families." Zhang Xiaohong and Zhang Haitao<sup>[5]</sup> emphasize that volunteer service characterized by voluntariness, non-compensation, social engagement, altruism, and educational value. In the realm of sports, volunteer activities are crucial for the success of events, particularly in short-term volunteer roles, where they provide flexible, temporary, and one-time services [6]. The differences in individuals' motivations for participating in volunteer service are primarily influenced by their attitudes, beliefs, values, and personality traits [7]. Building on the exploration of volunteer motivations in the human services field, Clary et al. [4] developed the Volunteer Function Inventory (VFI), which

includes six functions: values, understanding, social, career, protective, and enhancement.

The theoretical framework of this study is based on Self-Determination Theory (SDT) as proposed by Deci and Ryan<sup>[8]</sup>, illustrated in Figure 1. This theory categorizes motivation into intrinsic and extrinsic types. Intrinsic motivation arises from an individual's interest in and satisfaction derived from the activity itself, while extrinsic motivation is triggered by external factors, driven by rewards or pressures. Intrinsic motivation encourages individuals to participate out of enjoyment, whereas extrinsic motivation emphasizes obtaining external outcomes through behavior. Extrinsic motivation is further divided into four types: integrated regulation, identified regulation, introjected regulation, and external regulation. Integrated and identified regulations, along with intrinsic motivation, autonomous motivation, whereas introjected and external regulations constitute controlled motivation. Autonomous motivation reflects an individual's behavioral tendencies under self-determination, while controlled motivation indicates behavior driven by external pressures or obligations.

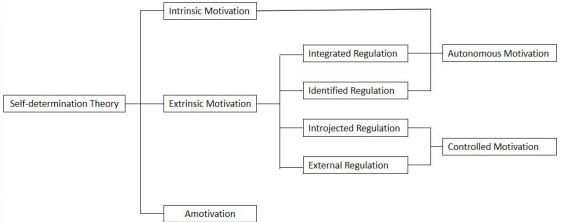


Figure 1. Motivation Model of Self-Determination Theory

#### 3. Research Design

### 3.1 Research Subjects

This study employed purposive sampling to select student volunteers from Beijing Hospitality Institute (BHI) who participated in the China Open in 2023. The sample size was determined based on data saturation, meaning that data collection ceased once no new themes emerged. A total of 18 students were included in the study. Basic information about the interviewees

presented in Table 1.

The study used semi-structured interviews with a guide developed based on the framework of Self-Determination Theory (SDT), focusing on the motivations and experiences of BHI students participating in the China Open volunteer service. The research team, in collaboration with the volunteer team leaders, revised the interview guide to ensure its comprehensiveness and relevance. The final interview guide included the following sections:



**Table 1. Basic Information of Interviewed Students** 

							X 7 1 .
Number	Age	Gender	Major	Grade	Hometown	Volunteer Position	Volunteer Service Times
			II D			VIP Tickets	Service Times
V01		Female	Human Resources	3	Zhengjiang		1
			Management			Service	
V02	21	Male	Sales and Marketing	3	Shanghai	Concierge	1
V03	21	Female	Hospitality Management		Hebei	VIP Receptionist	1
V04	21	Female	Hospitality Management	3	Jiangzu	Concierge	1
V05	21	Female	Hospitality Management	3	Zhengjiang	Concierge	1
V06	20	Male	Finance Management	2	Tianjin	VIP Tickets	1
						Service	
V07	21	Female	Hospitality management	3	Beijing	Concierge	1
V08	21	Male	Sales and Marketing	3	Human	VIP Receptionist	1
						•	
V09	20	Male	Health Management	2	Zhejiang	Concierge	1
V10	21	Male	Human Resources Management	3	Hebei	VIP Tickets	1
						Service	
V11	21	Female	Hospitality Management	3	Beijing	Concierge	1
V12	21	Male	Hospitality Management	3	Beijing	Concierge	1
V13	21	Male	Sales and Marketing	3	Shanxi	VIP Tickets	1
						Service	
3714	20	E1-	Hamitalita Managana	2	Inner	Camaianaa	1
V14	20	remale	Hospitality Management	2	Mongolia	Concierge	1
V15	20	Female	Hospitality Management	2	Anhui	VIP Receptionist	1
V16	22	Male	Human Resources	4	Beijing	Concierge	1
			Management				
V17	21	Female	Human Resources	3	Hubei	VIP Tickets	1
			Management			Service	
V18	20	Female	Human Resources	2	Hebei	VIP Tickets	1
			Management			Service	
			•				

Personal Information Collection: Gathering information on the interviewee's age, gender, major, grade, and hometown.

Volunteer Service Experience: Inquiring about the times the interviewee has participated in the China Open volunteer service and briefly describe the main tasks and characteristics of their positions.

Situational Setting: Inquiring about the specific dates and duration of the interviewee's participation in the China Open volunteer service, how they learned about it, and the process of applying and joining.

Initial Motivation: Exploring the primary motivations for participating in the China Open volunteer service and detailing these motivations and expectations.

Work Environment and Needs Fulfillment: Providing a comprehensive description of the interviewee's volunteer experience and exploring their subjective feelings and experiences. Guiding questions included: a. Describing the organizational structure and role distribution of China Open volunteers, including recruitment. training. management, reward policy, evaluation systems, and retention strategies. b. Asking about their roles and main responsibilities during the China Open volunteer service. c. Inquiring about interactions with other volunteers and evaluating the collaboration with these volunteers. d. Asking whether the interviewee felt valued as a volunteer and detailing their specific experiences. Exploring the interviewee's willingness to continue as a China Open volunteer in the future and the reasons behind this willingness.

#### 3.2 Data Collection Strategy

This study obtained the contact information of the subjects by reaching out to the BHI Youth League Committee (the department responsible for organizing China Open volunteers) and schedule interviews. Interviews were conducted in quiet and comfortable environments, either face-to-face



or by phone, with each interview lasting between 40 to 60 minutes. Two researchers, who underwent uniform training, conducted the semi-structured interviews. Before the interviews, researchers explained the purpose of the study and assured confidentiality, obtaining consent before recording. After the interviews, two researchers transcribed the recordings verbatim and collaboratively discussed and extracted themes. Data analysis followed Colaizzi's seven-step method, which includes data analysis, theme extraction, content classification, and organization.

# 4. Changes in Volunteer Motivation during the China Open Participation

This section provides an in-depth analysis of the motivations and self-assessments of volunteers, examining the psychological processes behind their volunteer behavior through the lens of Self-Determination Theory (SDT). Volunteers' self-descriptions reflect their perceptions of their behavior and experiences, demonstrating their understanding and evaluation of social contexts, which constitutes a significant aspect of their social perception.

# 4.1 Motivation at the Initiation Stage of Volunteer Behavior

4.1.1 Dominance of autonomous motivation Based on Deci and Ryan [8] intrinsic motivation arises from an individual's inherent interest and enjoyment in an activity, leading to voluntary participation and enjoyment, which fosters psychological growth and development. Activities driven by intrinsic motivation often feature novelty, stimulation, appropriate challenges, and pleasure. In the interviews, most volunteers indicated that their primary reason for participating in China Open volunteer activities was their interest in the activities. They described these activities as "interesting," "fun," and "voluntary choices." This suggests that their motivation at this stage was primarily intrinsic, focusing on the enjoyment derived from the activity itself. For example, one volunteer said, "Volunteering requires time and effort, and if I didn't enjoy it, I wouldn't participate" (V02). Another volunteer emphasized, "These volunteer activities are always your own choice; it's entirely voluntary, no one forces you to do it" (V07).

Identified regulation is one of the important drivers for many students participating in volunteer services, reflecting the process by which BHI students recognize and accept the value of volunteer work, closely linked to their personal values. On one hand, many students view participation in the China Open volunteer service as a preparation for development and an opportunity to acquire new skills. In the competitive social context, many students feel an urgent need to integrate into society early, increasing their demand for social practice. They hope to enrich their resumes and lay a foundation for their future careers through volunteer experiences. This motivation is particularly evident among students majoring in hospitality management. For example, one student stated, "I am studying hospitality management, and there is a course on event and festival management. Participating in large-scale events management is very important for me. Volunteering at the China Open is a way for me to gain experience in this area, so I participated for personal reasons" (V14). Another volunteer noted, "Volunteering is the fastest and easiest way to engage with society. You can interact and work with people from different universities and industries, which is not available on campus. This is very helpful for future work." (V01).

Additionally, some students defined their participation in the China Open volunteer service as "short-term," "simple," "suitable for students (flexible schedule)" service projects. One volunteer mentioned, "I think volunteering benefits society. I have always wanted to participate in more volunteer activities, but there were no suitable opportunities before college" (V03). respondent emphasized responsibility of youth in society, stating, "I think young people should do what they can for society and the country. Any possible effort is acceptable, and these volunteer activities are simple tasks. You just need to help according to the organizing committee's requirements" (V12).

4.1.2 Emergence of controlled motivation Overall, BHI students' motivations for participating in the China Open volunteer activities were primarily based on autonomous motivation, including intrinsic and identified regulation, and they generally recognized the



voluntariness and non-compulsory nature of the volunteer activities. However, under the influence of controlled factors, some students exhibited controlled motivation. For instance, some interviewees noted that participation in the China Open volunteer activities was influenced by certain controlling factors. A volunteer mentioned that participating in the China Open volunteer program is equivalent to completing a 2-credit elective course. Compared to other semester-long courses, completing a semester's worth of work in just a few days is much more efficient. (V13). Additionally, some students hoped to obtain relevant work experience certificates through volunteering. For example, one volunteer said, "I'm quite pragmatic. I hope to use this opportunity to meet different people—some of them even introduce job opportunities for me. In other words, I want to use this experience to help me find a job. Additionally, participating in the China Open volunteer program provides a certificate of service, which will be helpful when looking for a job in the future." (V10). The motivation to participate in volunteer activities to gain rewards (such as completing academic tasks or obtaining work experience certificates) falls under controlled motivation.

# 4.2 Motivation during the Process of Volunteer Behavior

During the volunteer service experience, various social factors may simultaneously affect volunteers' psychological states. Even the same volunteer may have diverse types of motivations at different stages of their volunteer service, indicating that a volunteer's motivations can shift in response to changes in external circumstances. Specifically, the motivation of BHI students during their volunteer service at the China Open exhibits the following three characteristics:

4.2.1 Maintenance of intrinsic motivation During their volunteer service, many BHI volunteers expressed the joy they derived from their work, especially those who emphasized "making new friends" and "learning new knowledge or skills." This group included individuals who were initially motivated by intrinsic factors to participate in the volunteer work. For instance, V07, whose initial motivation for participating in volunteer service was her interest in the activities themselves. When she described her work

experience, she said: "I found that I really enjoy this type of work, especially during the matches. We are responsible for guiding the audience into the venue, and seeing everyone enter the event in an orderly manner under our guidance made me feel especially proud. Although the work involved a lot of physical labor, and I sometimes had to stand all day, it was exhausting yet rewarding. There were so many details to focus on, and I truly learned a lot

Furthermore, the study also explored who initially individuals participated in based volunteer service on extrinsic motivation (mainly identified regulation). As previously mentioned, V15's initial motivation stemmed from identified regulation (the perceived value of volunteering for her professional studies). However, when describing her volunteer experience, V15 expressed a fondness for interacting with different people. She said: "I really enjoy interacting with all kinds of people. I had the opportunity to communicate with many other volunteers, which brought me great joy. We discussed our reasons for participating in volunteer service; some people, like me, were there to learn new knowledge, and we all yearned for different experiences. We shared a lot of information with each other. You also meet other people and get to know their thoughts, which is very interesting." This indicates that during the actual volunteer service, V15 exhibited traits of intrinsic motivation.

4.2.2 Maintenance of identified regulation During the volunteer service period, the motivations of China Open volunteers typically manifest as identified regulation, meaning that individuals are more inclined to focus on the separable outcomes of the activities rather than the interest, benefits, or enjoyment derived from the activities themselves. Even when faced with simple, monotonous tasks that sometimes come with fatigue and stress, they are not swayed by external factors (i.e., these controlled motivation) because they recognize the value of their work and hope for the successful execution of the event. For example, one volunteer stated, "The task I was assigned was simply to help the audience scan tickets. It was a repetitive job, and due to the large number of attendees, it was quite busy. While it could be



somewhat monotonous, I saw that the athletes were also working very hard, putting in a lot of effort to prepare. I felt that being able to assist them was a good thing." (V01). Another volunteer commented, "After all, the tasks involved in volunteer service are usually not difficult. If the organizing committee were to hire professionals for this type of work, it would not only be challenging to recruit them but also costly. This is exactly why volunteers need to get involved. Therefore, wherever help is needed, I am willing to assist." (V17).

These identified regulations often require volunteers to recognize the value of the event, such as helping others and giving back to the community. Johnston and Twynam [9] conducted research on volunteer motivations across multiple events using the Special Event Volunteer Motivation Scale (SEVMS) and found that "helping the event succeed" is the most critical type of motivation for special event volunteers. This is also one of the main distinctions between special event volunteers and those participating in other types of social service volunteering.

#### 4.2.3 Increase in controlled motivation

Throughout the entire volunteer experience, various social factors influence volunteers' motivations, involving a continuous process of weighing and adjusting. Volunteer participation is generally based on the principle of voluntariness; however, during the volunteer service process, some volunteers have indicated that when faced with significant pressure or other notable controlling factors, they may exhibit a more passive attitude, displaying clear characteristics of controlled motivation. For example, V02 mentioned, "Some spectators were upset with us that day due to issues on the organizers' part. I believe this is not my fault, as I am just a volunteer. After the competition, I won't face any trouble or get fired. I am simply a volunteer here to help. If something goes wrong, it's not my responsibility. This is different from a job; if I make a mistake at work, my boss might get angry or even fire me. However, if something goes wrong during volunteer service, it doesn't matter because I'm here to provide unpaid labor and offer help." Another volunteer, V08, also noted, "Perhaps due to insufficient staff, the organization assigned us many tasks. The work was really tiring, and working with her (group leader) was quite frustrating. It felt like

she was ordering me around, as if she thought it was expected. I often wondered if she forgot that I'm a volunteer, and that she isn't paying me. I often felt very tired."

# 4.3 Motivation at the Conclusion of Volunteer Behavior

After the completion of volunteer service, volunteers evaluate their experiences and decide whether to continue participating in similar activities. This overall evaluation often reveals changes in their motivation trends. By examining aspects such as "willingness to participate again" (retention intention) and "attitude towards material or non-material rewards" (controlled motivation), we can uncover differences in volunteers' motivation at this stage. This section aims to analyze the types of motivation for individuals at this stage and trend the motivational changes based on some typical cases.

4.3.1 Demonstration of intrinsic motivation After the activity ends, some volunteers who were initially driven by intrinsic motivation maintain a high level of interest in their volunteer service and explicitly express a desire to support future activities. For example, V04's initial motivation was intrinsic. Although there was some identified regulation during the service to ensure the success of the event, V04 evaluated her experience as follows: "Overall, I felt the work environment was very comfortable. Everyone treated us with respect, the atmosphere was relaxed, and there was a lot of autonomy. They were very friendly, and I was willing to help because it reflected mutual respect. Although it was voluntary service, I expected to receive respect and non-material rewards, which I could feel in my interactions with the organizers. I enjoyed working there and established friendships with the volunteer managers. I hope to continue participating next year" (V04). This case shows that, despite the presence of identified regulation, intrinsic motivation remained well-maintained throughout the volunteer service and continued to be V04's primary source of motivation.

Additionally, those initially driven by extrinsic motivation (mainly identified regulation) begin to value the enjoyment and satisfaction derived from the activity itself after the volunteer service ends. For instance, V05 initially participated in volunteer service "to contribute



to society rather than for personal gain." However, during the service, V05 found the volunteer work "fantastic" because it allowed the use of her expertise and provided immense enjoyment and satisfaction, leading to a desire to participate again. After the activity, V05's motivation significantly shifted to intrinsic motivation, emphasizing the pleasure derived from the volunteer service itself as the reason for future participation. This case illustrates a trend from extrinsic motivation (identified regulation) to intrinsic motivation.

4.3.2 Transformation of identified regulation After the volunteer service, students usually conduct a comprehensive assessment of their experience, especially re-evaluating the value of the experience. For example, V16, a graduating student, initially participated in volunteer service to gain social practice experience. V16 summarized: "Although the tasks on the day were quite monotonous, I had the chance to meet many new friends and watch many exciting matches. This allowed me to find a balance between dull and interesting activities. If the activities had been monotonous all the time, I might have lacked motivation. More importantly, I witnessed athletes from different countries striving for their dreams and felt that the event was very meaningful. Therefore, if given opportunity in the future, I would still be willing to participate in similar activities because serving others is beneficial to society" (V16). This case indicates that although V16 continued to maintain identified regulation after the service, the recognition of the value of participation shifted from "the value of practical experience" to "the value of social service."

Another case involves V11, whose initial motivation was intrinsic due to curiosity about and enjoyment of the China Open volunteer service activities. After the service, V11 realized that this experience helped improve her interpersonal communication skills, leading to a shift from intrinsic motivation to identified motivation. V11 stated: "I'm not good with words, but this job required me to communicate with different athletes and spectators. I started learning from other volunteers and mastered many communication skills. In fact, such activities require communication with others, which helped me a lot. I shared these thoughts with my

volunteer team leader, and if given another opportunity, I would like to participate again and hope to perform better" (V11).

4.3.3 Diminution of controlled motivation

As emphasized by the concept of "volunteer activity," volunteer work is essentially an unpaid public service, so material rewards are relatively minimal. Material rewards are not the primary driving force for volunteers' participation. This is evident from many volunteers' attitudes towards the rewards they receive. After the volunteer service, most volunteers receive some material non-material rewards, such as commemorative clothing, hats, thank-you letters, and awards ceremonies. One volunteer mentioned: "I didn't expect to receive discounted tickets as a reward, which was specially prepared by the organizers. I was very surprised" (V06). Another volunteer said: "After the event, I received a beautiful thank-you letter and a small gift, which was unexpected and appreciated" (V09). These reactions indicate that as volunteers, they do not anticipate any form of reward, reflecting that BHI volunteers primarily focus on the essence of volunteer service rather than material compensation, thus showing low levels of controlled motivation.

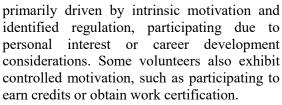
# 4.3.4 Emergence of amotivation

Both intrinsic and extrinsic motivations are conscious psychological states. In contrast, "amotivation" describes a state of lacking awareness and motivation [8]. In this study, some young volunteers showed disinterest or lack of recognition in volunteer service after the activity, reflecting an amotivated state. For example, V18 summarized: "There were many volunteers on the day, and it was chaotic and boring. I felt the holiday was wasted. But later, I decided to adapt since I was there. This experience was enough, and many classmates might share my view. I found the activity quite tedious and learned little, so I would prefer to attend classes in the classroom, where it's more relaxed, and I can learn more. Therefore, if similar opportunities arise, I might not participate again" (V18).

#### 5. Discussion

The motivation changes of China Open volunteers reveal a dynamic process throughout the initiation, execution, and conclusion stages of volunteer behavior. During the initiation phase, volunteers are

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Throughout the service, volunteers' motivations adjust with changes in the external environment. Some continue to engage due to intrinsic motivation, enjoying the activities, while others shift from identified regulation to intrinsic motivation, further enhancing their sense of involvement. However, when faced with pressure or external control factors, some volunteers show increased controlled motivation, demonstrating a more passive attitude.

In conclusion phase, volunteers comprehensively evaluate their experiences to decide whether to continue participating in similar activities. Some maintain high levels of intrinsic motivation and are willing to participate again, especially when they feel respected and enjoy a positive working environment. Meanwhile, some volunteers identified reinforce their regulation, transitioning from "personal development" to "social contribution." However, there are also volunteers who exhibit amotivation due to loss of interest or diminished recognition of the activity's value, making them unwilling to engage in similar activities in the future.

## 6. Conclusion

This study, grounded in Self-Determination Theory, explores the dynamic changes in motivations of university student volunteers participating in the China Open. The findings indicate that volunteers' motivations evolve through different stages—from being driven by intrinsic motivations and identified regulations to shifting due to external environmental influences during the service process, and finally adjusting further through self-evaluation after the service concludes.

The research reveals the diversity and complexity of volunteer motivations and highlights the critical role of social factors in these changes. The implications for volunteer service management are significant, suggesting that when designing and implementing volunteer programs, a balance between intrinsic needs and external incentives should be considered to enhance volunteer



engagement and satisfaction.

However, the study has limitations, such as a limited sample size, which may not fully represent the motivation changes of all volunteers. Future research could expand the sample range and incorporate additional variables to further investigate the long-term impacts of volunteer motivation. This study not only provides a new perspective on understanding the motivation changes of university student volunteers but also offers valuable insights for optimizing and managing volunteer service programs.

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