A Study of Relationship between Mountaineering Participation Motivation and Risk Perception

Yen-Chieh Wen, and Ching-Hui Lin

Abstract—The main purpose of this study is to analyze climbers involved in motivation and risk perception and analysis of the predictive ability of the risk perception “mountaineering” involved in motivation. This study used questionnaires, to have to climb the 3000m high mountain in Taiwan climbers object to carry out an investigation in order to non-random sampling, a total of 231 valid questionnaires were. After statistical analysis, the study found that: 1. Climbers the highest climbers involved in motivation "to enjoy the natural beauty of the fun. 2 climbers for climbers "risk perception" the highest: the natural environment of risk. 3. Climbers “seeking adventure stimulate”, “competence achievement” motivation highly predictive of risk perception. Based on these findings, this study not only practices the recommendations of the outdoor leisure industry, and also related research proposals for future researchers.

Keywords—Mountaineering, motivation, risk perception, decision-making.

I. INTRODUCTION

In recent years the mountaineering in Taiwan rampant and has become one of the most important leisure activity of the public holiday. Taiwan's mountainous terrain, roughly divided into the suburban hills, the intermediate mountain hiking route, as well as more than 3000 meters high mountain three climbers types . Are set according to the Tourism Bureau for the positioning of mountaineering activities, mostly in national parks and wilderness of the mountains and peaks are sparsely populated, steep land environment, the altitude of 1500-3000 meters Intermediate Mountain, 3000 meters above the mountain. Visitors in its tourism area bit by exposure to environmental, topography, geomorphology, path changes to itself to overcome the harsh environment of the needs of the individual technologies and equipment, adventure mentality and participate in purpose, pursuing experience and physical endurance test, etc., are large on other hiking activities. In addition, in the course of activities, needs to combine a certain extent, such as: rock climbing, river tracing, and other special mountaineering skills and knowledge of wilderness survival. Means climbing and mountaineering in the study of more than 3000 meters up formed by rushing river waters that has cut through the marble and granite to create a beautiful (more than 3000 meters above sea level, is a senior Hill), belonging to long-distance hiking trails [1].

Can be found climbing the mountains above 3000 meters above the mountains classification, risk, climbers need to have the physical strength, stamina, and technology. Mountaineering participation motivation, Ewert study participation motivation of outdoor adventure recreation activities climbers will include measuring motivation: challenge/adventure (Happily, achievement, excitement, adventure because we wanted the body skills test), purification (alone, release, relief, ease emotional role, personal values, away from the authoritarian), understanding (competition, to show others, become a climber), creativity (helping others, creativity, self-expression, photographic art, mind use), locus of control (development capacity to make decisions, get control of the team effort, friendship), physical environment (preferences wilderness, look at the scenery) [2].

Chang, Lin, and Li study mountaineering sightseeing participate in behavior patterns, the object of those who had to climb the 3000m of mountaineering, climbers participation motives to participate in the activities available physical and mental release, to meet the challenge and stimulate social interaction with others, enjoy the group experience, enjoy and experience nature, certainly their skills and achievements, and would like to experience new and unique and different daily situations explore new things and improve their knowledge, sports and promote physical health and the development of health-related fitness [3].

Robson pointed out that when people generate participation motivation, be involved in the activities, environmental risk assessment, followed on the decision-making to be involved in the activities of this decision will be related to personal competence [4]. In risk perception, Yates pointed out that a major component of the risk, including: 1. Potential losses; 2. Significant losses; 3. Uncertain loss. First of engaging in risky behavior may result in a loss, such as health, freedom, life or money; Secondly, risk means to feel significant losses [5]. Cheron and Ritchie study of the risk of feeling of leisure activities, and illustrate the risk fractional part, the various risks of loss. Any kind of risk may affect the feelings of personal activities, and could therefore be followed to reduce the participant for the competence of the entire adventure. These risks can be divided into the following seven kinds: 1.Financial risk: the activity may be provided with money to spend is not the same value. 2. Functional risk: there may be instruments and equipment damage. 3. Physical risk: may cause physical injury or Tong pain. 4. Psychological risk: activities may change person self-awareness. 5. Social risk: activities may...
II. METHODOLOGY

A. Subject and Sampling

The study investigated climbers involved in mountaineering activities. The participants were invited to complete the questionnaire, which was sent via email or social media. The questionnaire was designed to gather information on the climbers' demographic characteristics, motivation, and participation patterns.

B. Questionnaire

The questionnaire consists of three parts: demographic information, participation motivation, and risk perception. The demographic information includes age, gender, education, occupation, and monthly income. The participation motivation scale measures the climbers' interest, enthusiasm, and enjoyment of mountaineering activities. The risk perception scale assesses the climbers' concerns about the physical and mental risks associated with mountaineering.

III. RESULTS

A. Demographic Characteristics of Sample

The sample consisted of 231 climbers, with 130 males and 101 females. The age range was 18 to 65 years, with a mean age of 43.2 years. The majority of participants were between 30 and 40 years old. The education level was as follows: 87 participants had a university degree, 76 had a high school diploma, and 68 had a junior high school certificate. The marital status was as follows: 87 were married, 130 were single, and 4 were divorced or widowed.

B. Motivation and Risk Perception

The motivation scale includes five factors: enjoyment, challenge, physical and mental satisfaction, social interaction, and nature-oriented experiences. The reliability coefficient for the motivation scale was 0.87. The risk perception scale includes eight factors: physical injury, mental stress, natural disaster, weather, time, money, physical injury, and physical pain. The reliability coefficient for the risk perception scale was 0.92.

C. Participation Patterns

The participation patterns of the climbers were analyzed using multiple regression analysis. The results showed that the motivation scale significantly predicted the participation patterns of the climbers. The regression coefficient was 0.56, indicating a moderate effect size. The risk perception scale also significantly predicted the participation patterns, with a regression coefficient of 0.43.

D. Conclusions

The study found that the climbers' motivation and risk perception are important factors in their participation patterns. The findings can be used to improve the design and implementation of mountaineering activities, ensuring they are safe and enjoyable for participants.
100,000 persons, taking into account 1. Climb the 3000m high mountain frequency, the effective sample size of 231, which account for the largest number of climbers within 20, 87, and less than 60 times, at least 16 people after.

### B. Analysis of Mountaineering Participation Motivation

The analysis found that, the motivation 24 items, in order: "enjoy enjoy the natural beauty of the fun" (M = 4.34, SD = .72), "close to the natural environment together" (M = 4.29, SD = .65), "to promote good health" (M = 4.21, SD = .73), "the depth of experience of the natural environment" (M = 4.19, SD = .65), and "away from the irritability of the day-to-day life of life." (M = 4.15, SD = .71), "to achieve physical and mental release" (M = 4.14, SD = .74) "to achieve the exercise effect" (M = 4.07, SD = .73), "enjoy a group experience" (M = 4.05, SD = .73), "to relieve stress and tension" (M = 4.05, SD = .79) "to establish an interactive relationship" (M = 4.04, SD = .70), "and others to explore new things" (M = 4.04, SD = .74), "the new experience of daily life context" (M = 4.03, SD = .65), "want to get a unique experience" (M = 4.03, SD = .76), "with friends or family together develop close relations" (M = 4.03, SD = .72), "get self-confidence and sense of achievement" (M = 3.99, SD = .69), "challenges abilities" (M = 3.98, SD = .81), "and developing the physical fitness" (M = 3.95, SD = .65), "for new knowledge to be able to tell others about this activity" (M = 3.88, SD = .68), "want to have the adventurous experience" (M = 3.85, SD = .84), "the challenge of nature" (M = 3.77, SD = .13), "an exciting feelings" (M = 3.73, SD = .81), "seek excitement and challenges" (M = 3.63, SD = .92), "the development of new skills" (M = 3.62, SD = .79), "want to experience the horror dangerous situations." (M = 3.11, SD = .11).

### C. Analysis of Mountaineering Climbers Risk Perception

The results of the analysis show that the climbers mountaineering "risk perception", in order: "the natural environment of risk" (M = 3.99, SD = .71), "the risk of bodily harm with Tong pain" (M = 3.94, SD = .70), "may be a waste too much time" (M = 3.94, SD = .75), "change the cognitive" (M = 3.87, SD = .74), and even change the others cognitive (M = 3.85, SD = .72), "the whole process" (M = 3.73, SD = .70) in control, "is expected to participate in mountaineering results to be successful" (M = 3.71, SD = .73), "activity may provide money spent does not equal value" (M = 3.71, SD = .87). I believe that self-ability to overcome the risks (M = 3.61, SD = .75).

### D. Correlation analysis of the Participation Motivation and Risk Perception

#### TABLE I

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Note: A. Seeking adventure stimulus
B. Nature-oriented
C. Social interaction
D. Novelty experiences
E. Ability achievements
F. Physical and mental release
G. Perceived risk
H. Participation in decision-making

Table I Correlation analysis of the results shows that participation motivation of the six factors (seeking adventure stimulus, nature-oriented, social interaction, quirky experiences, ability achievements, and physical and mental release), the risk perception of two factors has higher relationship exist.

### E. Regression Analysis of the Participation Motivation on the Risk Perception

In this study, the participation motivation, the "seeking adventure stimulus", "nature-oriented", "social interaction" quirky experiences "ability achievements" and "physical and mental release" the six factors for predicting variables and the criterion variable "risk perception" factor dimensions, mining forced into the method of regression analysis results, as shown in Table II. Six predictors, 2 variables were significant level, we can see from the table input and 2 variables can predict the risk perception value of 37%. Details see the shown in Table II.

#### TABLE II

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Note: A. Seeking adventure stimulus
B. Nature-oriented
C. Social interaction
D. Novelty experiences
E. Ability achievements
F. Physical and mental release

### IV. DISCUSSION

#### A. Mountaineering Participation Motivation

The analysis results show that the highest climbers generally nature-oriented motives. They think that in the process of climbing, not only to enjoy the fun to enjoy the natural beauty, the most important and the natural environment closely together, and the depth of experience of the natural environment. From the above results, in line with the related the mountaineering study pointed out [2] [3]. together with nature, is the main motivation of the climbers involved in mountaineering. And nature together, however, and the psychological level, the study also found that climbers climb...
mountains, mainly want to stay away from irritability everyday regular life, relieve stress and tension, and to experience daily life situations, to achieve physical and mental release purposes. In addition, from the perspective of the physiological, mountaineers also want to promote good health by climbers to reach the effect of movement and the development of health-related fitness.

Social interaction is usually the most important motivation to engage in sports and leisure, from the results of this study, mountaineers climbing motive, mainly want to interact with others. Some climbers want to enjoy a group experience, establish interactive relationships with others, with friends (or family) with the development of close relations. Some climbers want to get new experience; they explore new things by climbers, a unique experience, to acquire new knowledge, to be able to tell others about this event. Climb altitudes above 3000 meters from the contact with the environment, topography, geomorphology, path changes, personal technology and equipment needed to overcome the harsh environment, adventure mentality and participation purposes, trace their experience with the physical endurance test to itself, are greater than other hiking activities. The study also found that, mountaineers and their participation motives sake to challenge their skills and get self-confidence and a sense of accomplishment, and want to have the adventure experience, challenging nature, an exciting feeling, seek excitement and challenges, the development of new skills and want to experience the horror dangerous situations. The results of the above analysis, the same and adventurous sport tourism research found [1] [3].

B. Mountaineering Climbers Risk Perception

Climbing more than 3000 meters high mountain, in essence, there is a risk, this is the main reason why annual mountaineering accident in Taiwan frequent. Of course, just as the findings of this study, mountaineers generally think that the two risk climbing mountains basic, is from the "natural environment" and "bodily harm with Tong pain" risk. Due to the vagaries of the natural environment, according to the researchers' experience, such as has not been correctly judge usually occur mountaineering accidents. So in terms of risk perception, why scholars think that the climbers control of the entire process, assess mountaineering results before departure smooth and successful, is very important [4] [5] [6]. The ability of the climbers whether overcome the risk is also very important, otherwise it cannot be successfully completed mountaineering, will produce change ideas of their own cognitive. In addition, there may be a result of the last reasons; others will change your view. Of course mountaineering activities planning is also quite important, otherwise they may have to waste too much time, as well as the activities may be provided with money to spend is not equal to the value of the case.

C. Relationship of the Participation Motivation and Risk Perception

The results of the analysis found that the "participation motives" and "risk perception" between variables exist, this also shows that when people generate participation motivation, be involved in the activities, environmental risk assessment, followed by the activities involved in decision-making, but this decision will involve personal competence [4]. From another point of view, also confirmed climbers them climbing higher participation motivation, risk perception will be more intense. Further found that the results of the regression analysis seeking adventure stimulus as well as the ability achievements of these two factors can effectively predict risk perception. According to the literature [7] pointed out that the motivation to participate in adventure tourism and recreation activities the reason other Robesion pointed out that adventure recreation participants produce adventure attraction, followed be threatened situational assessment and decided to participate in or cancel [4]. Results of this study also support the perception of risk will affect to the people choose to participate in the adventure tour recreation activities [8], people will seek the most suitable personal capacity and environmental challenges commensurate with the recreation opportunities adventure recreation involvement generated depends on the personal perception of environmental risks as well as personal competence [9].

D. Suggestions

From the results of this study, the motives of the climbers can be divided into six, and is involved in moving the opportunity to influence risk perception. Therefore, in practical use, from several aspects to promote: 1 to illustrate the level of education that is stressed mountaineering participation benefits, and how to have a correct perception of participation in risk; 2. Newspaper media publicity through leisure travel magazines and newspaper travel sections, the existing planning climbing routes, specific environmental situation, individuals need to have those capabilities, as well as to satisfy those who experience; 3. government and civil hiking groups, outdoor recreation business, or the combination of recreation groups, introduce through tourism Web of climbing routes and specific instructions; 4. combination of school and corporate units, handling mountaineering activities, so that they have a correct understanding of the activities, plus on the trip before the process of active allow them to experience the fun of climbing. For future researchers, this study only involved in motivation "and" risk perception "as the study variables, for climbers involved in mountaineering activities, its inside and outside in the psychological experience is not specifically discussed, it is the follow-up. The researchers analyzed this direction. Addition climbers’ psychological impact involved in mountaineering activities also came to Canada to explore, to take to specific understanding of the climbers psychological and behavior.

References


