

# Discussion on the Management of Equestrian Events in Republic of China

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**Abstract-** The initial purpose of equestrian is to maintain horses stable and absolute taming in various usages and situations. Equestrian is not only training but also education. In education, in addition to having a correct approach, it is more necessary to guide with real cares, a loving mind and attitude. However, horses need to be nurtured for right habits under considerate cares and patience rather than merely trained by means of oppression and strong control to guide the same to know the significance of support and help them gain physical agility through exercise and enhance wisdom in a step-by-step manner. Horses are of course important, but the nurturing results need to be verified by a safe and perfect, standard equestrian events in an arena. In addition to standard site and equipment, the proper distribution of managerial staff for events is also included, plus a professional judge group and all can give play to teamwork spirit. Finally, don't forget that we should not neglect the love for horses. Everything is centered on the well-being of horses, so that equestrian sports can be given more attention and concerns in Taiwan.

**Keywords:** equestrian, equestrian events, analytic hierarchy process

## I. INTRODUCTION

The main purpose of this research is to discuss the safety and fairness of equestrian events in racecourse in this country and if there is any improvement and progress in comparison with international events. A questionnaire investigation with the help of "analytical hierarchy process" is applied in coordination for event management and discussion and an analysis is made to find the improvement guidelines so as to keep up with the level of international events.

### A. Research Background and Motives

In recent years, the equestrian in Taiwan has been under way of gradual development due to the influence of international events. Especially as the players from the teams of many countries are endeavoring to march toward the international stage, not only horse quality but also horse level is under way of progress year after year. The researcher has been working in the equestrian field for around 25 years, with great passion in his equestrian career. This is a liking developed accidentally. Currently in Taiwan, the researcher has served as a judge in numerous equestrian events, whether large or small. However, equestrian events discussions are often full of a lot of controversies. It is hoped to pursue perfection and study from the regulations in international event rules in the world.

The equestrian sports started with horseman culture, hunting activities and the horses used in farming and transportation. In the past, in order to make horses live the longest possible and healthy, it was imperative to care them properly. Honors were for horsemen, that was such only: not all event players could care their horses properly. Therefore, sometimes there were unfair and horse abuse phenomena.

After World War II, the equestrian sports became popular very fast. All, young and old, were attracted by horse beauty, horse temperament, horse appearance and horse applications. With the equestrian sports becoming more and

more popular, more money was used to buy expensive horses. Therefore, both equestrian events and event players grew a lot and very fast. However, the development of the equestrian sports in different parts of the world is greatly different.

In South American and East Asian countries, most international equestrian events are organized under club atmosphere. The award money is not unimportant. Therefore, events are held under a friendly sports spirit. Players often borrow horses to attend events. In Europe and North America, top equestrian sports are usually very highly professional with a lot of money investment. A lot of people make a living on equestrian sports (professional players, coaches, veterinarians, horse dealers, etc.). To make profits, there is a very high temptation to evade various rules. Therefore, in some small events, if an individual has a too strong desire for win, or fails to pay attention to the horse needing cares, treatment and horse riding training, fairness may also be absent. In some small events, improper acts were also found. Especially, young horsemen may wrongly imitate the incorrect habits and special riding methods of relatively famous horsemen.

From the above observations made from various aspects, there are many examples in the world showing the trend of foul and violation. The differences in different parts lie in equestrian ideology and also in special equestrian sports project, equestrian events standard. Therefore, prevention and supervision are always necessary. However, there must be current actual circumstances. Therefore, equestrian supervision must be flexible and no such competition principle as most event players, horse owners and coaches must respect their opponents should be forgotten. It is also able to treat horses properly, though recently in the equestrian world, the cases of violating rules, derogating and abusing horses have risen.

Therefore, it seems necessary to implement strong measures and methods to protect horses and protect its fairness. Even so, one should not react excessively due to the equestrian sports having been subject to a lot of criticisms in recent years. Some criticisms are rational but some are not. In some countries, what are generally accepted as being cruel is not taken serious in some other countries due to the life style of the horse owners. With working horses disappearing gradually, persons having experience and knowledge in respect of horse needs and abilities almost do not exist. Therefore, so to speak, what is expected by FEI ((equestrian supervision, assisting prevention and intervention, realizing fair event competitions through sound FEI equestrian supervision) and the code of conduct are not widely known. It is necessary to keep on educating about the importance of equestrian rules to uphold the interests of horse survival.

## II. LITERATURE REVIEW

This research is designed to discuss the factors for equestrian events management in the Republic of China, with the equestrian events holding form arrangement contents being mainly focused on. The contents and intensity may not necessarily meet the event needs. Based on the above motivation, the purposes of this research are described below:

- A. *Whether the assessment value of horse health condition is higher than that of the stallions of various horses, and discuss the horse training methods and the requirements of workmen in events.*
- B. *All veterinarians and medical measures on site can ensure the health interests of horses in events or not.*
- C. *Discuss the fairness of the equestrian events specifications for equestrian events in the Republic of China.*
- D. *After having the research results summarized, provide to the equestrian association of the Republic of China for reference in holding equestrian events.*

## III. RESEARCH METHOD

IN THIS RESEARCH, IN ORDER TO DISCUSS THE KEY FACTOR INDEXES FOR EQUESTRIAN EVENTS TO BE SUCCESSFUL AND PERFECT, RELEVANT DOMESTIC AND FOREIGN LITERATURES WERE COLLECTED FIRST WITH A REFERENCE BEING MADE TO RELEVANT CONTENTS THEREOF, AND THEN THE MOST APPROPRIATE SITE ARRANGEMENT AND EQUIPMENT, WORKMEN ARRANGEMENT AND JUDGE SPECIALIZATION AND FAIRNESS WERE SELECTED. ACCORDING TO THE RESULTS OF QUESTIONNAIRE INVESTIGATION BASED ON "ANALYTICAL HIERARCHY PROCESS" TO NATIONAL EQUESTRIAN COURSES IN THE TERRITORIES MEETING RELEVANT REGULATIONS, INTEGRATE THE WEIGHTS OF VARIOUS DECISION-MAKING FACTOR INDEXES AND HAVE THEM SEQUENCED ACCORDING TO PROPORTION. IN THIS CHAPTER, DESCRIPTIONS ARE MADE IN THE THREE ASPECTS OF RESEARCH PROCESS, RESEARCH OBJECT, RESEARCH STEPS AND IMPLEMENTATION.

A. RESEARCH PROCESS

THE ANALYTICAL HIERARCHY PROCESS IS USED AS A MAIN RESEARCH THEORETICAL TOOL FOR THE CONTENTS OF THIS RESEARCH TO OBTAIN THE RELATIVE WEIGHT VALUES OF THE KEY FACTOR INDEXES FOR EQUESTRIAN EVENTS TO BE PERFECT AND SUCCESSFUL. THE RESEARCH PROCESS IS DESCRIBED RESPECTIVELY BELOW:

1. DEFINE DECISION-MAKING ITEMS:

ACCORDING TO THE RESEARCH BACKGROUND AND MOTIVATION, THE RESEARCH SUBJECT IS DETERMINED (DISCUSSION ON THE MANAGEMENT OF EQUESTRIAN EVENTS IN REPUBLIC OF CHINA). THE PURPOSE OF THIS RESEARCH IS TO DISCUSS THE RELATIVE WEIGHTS INFLUENCING EQUESTRIAN EVENTS SITES, EQUIPMENT AND PROFESSIONAL OVER TAIWAN, AND ANALYZE THE RELATIONS BETWEEN HORSE HEALTH AND CONTROL RULES IN EQUESTRIAN EVENTS.

2. VERIFICATION RESEARCH:

USE “ANALYTICAL HIERARCHY PROCESS” (AHP) TO COMPARE THE RELATIVE WEIGHTS AMONG DIFFERENT DECISION-MAKING FACTORS TO ALLOW THE IMPORTANCE BETWEEN EVERY TWO FACTORS FOR EQUESTRIAN EVENTS. THE RESEARCH STEPS ARE SHOWN IN( FIGURE 1):

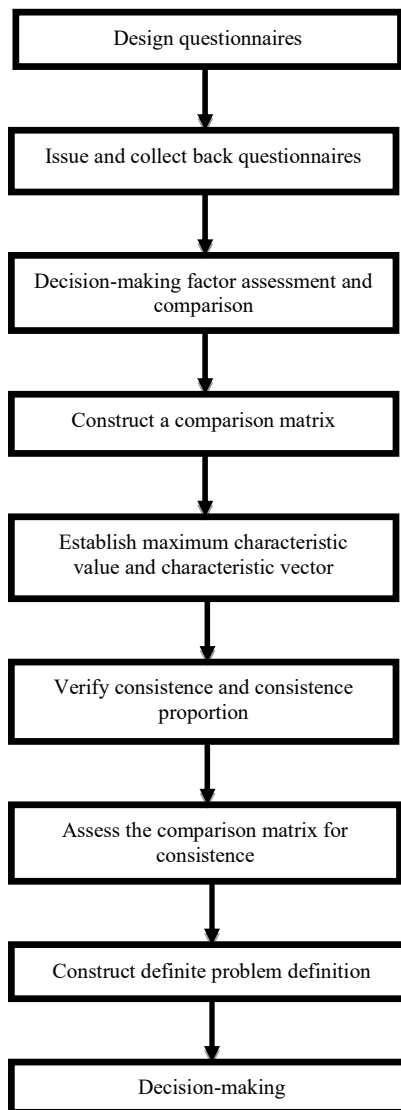


Figure 1. AHP analytical hierarchy process based research steps

3. Verification result analysis and discussion:

After analyzing the proportions of different factors according to the above result data and arrangement, discuss the key factors for equestrian events management in the Republic of China.

*B. Research Subjects*

Hierarchy analytical questionnaire object:

The object of this research is the equestrian professionals subject to professional training nationally. The purpose is to investigate what the national professional horse course technicians think are the important and key factors for successful holding of equestrian events, and simultaneously know the attitude and thinking of the national professional equestrian coaches and horsekeepers toward arena equipment, competition fairness and competition workmen arrangement.

*C. Research Process and Implementation*

1. Step 1: Literature discussion-analytical hierarchy process

According to the results of literature data summarization, this thesis decides to have opinion consensual criteria as the indexes for AHP hierarchical questionnaire investigation. A total of three major structural planes are divided: “judge specialization and fairness”, “workmen arrangement”, “course equipment and completeness”. To develop such topics as equestrian events and integration for realizing the non-controversial national equestrian events management, etc., it is imperative to determine at this stage the problem target and various indexes for the general target and their assessments. Different factors are classified according to the characteristics after assessment with multiple hierarchies created, because the main step of AHP is to establish a hierarchical structure as the basis for solving problems. The hierarchical structure created through decomposing and combining a complicated system is represented as an incomplete hierarchical structure. A complete hierarchy is represented as a relevance existing between an upper-layer hierarchy and a lower-layer hierarchy. For an incomplete hierarchical structure, not all hierarchies are relevant with each other. As known from the above literatures, it is not easy for a complete hierarchical structure to exist, because most practical problems are in an incomplete hierarchical structure pattern. This research assesses the relative importance of the influence of the key factors for equestrian events management with an incomplete hierarchical structure pattern being used in the initial assessment.

2. Step 2: Establish a hierarchical structure for national equestrian events

Discuss key factors from national equestrian events, present the feasibility of the three major structural planes of site equipment and planning, workmen arrangement and judge fairness, and find the factors for the structural plane problems and important relations for various hierarchies. According to the assessments and literature analyses as established in the previous chapter, the factors influencing equestrian events management are focally discussed. The assessment for various structural planes is quantified and therefore questionnaire presentation is used; the weights of the different structural planes of the AHP hierarchy are used for statistic-making to help execution to establish the best research and development results, provide a research report for integrating national equestrian professionals and establishing professional site equipment for maximum benefits. Analyze and summarize the results and define the management factors influencing national equestrian events running, use the hierarchical structure figure to design an analytical hierarchy process questionnaire and send to the places with equestrian events over the country. The following is the decision-making hierarchical structure (Figure 2):

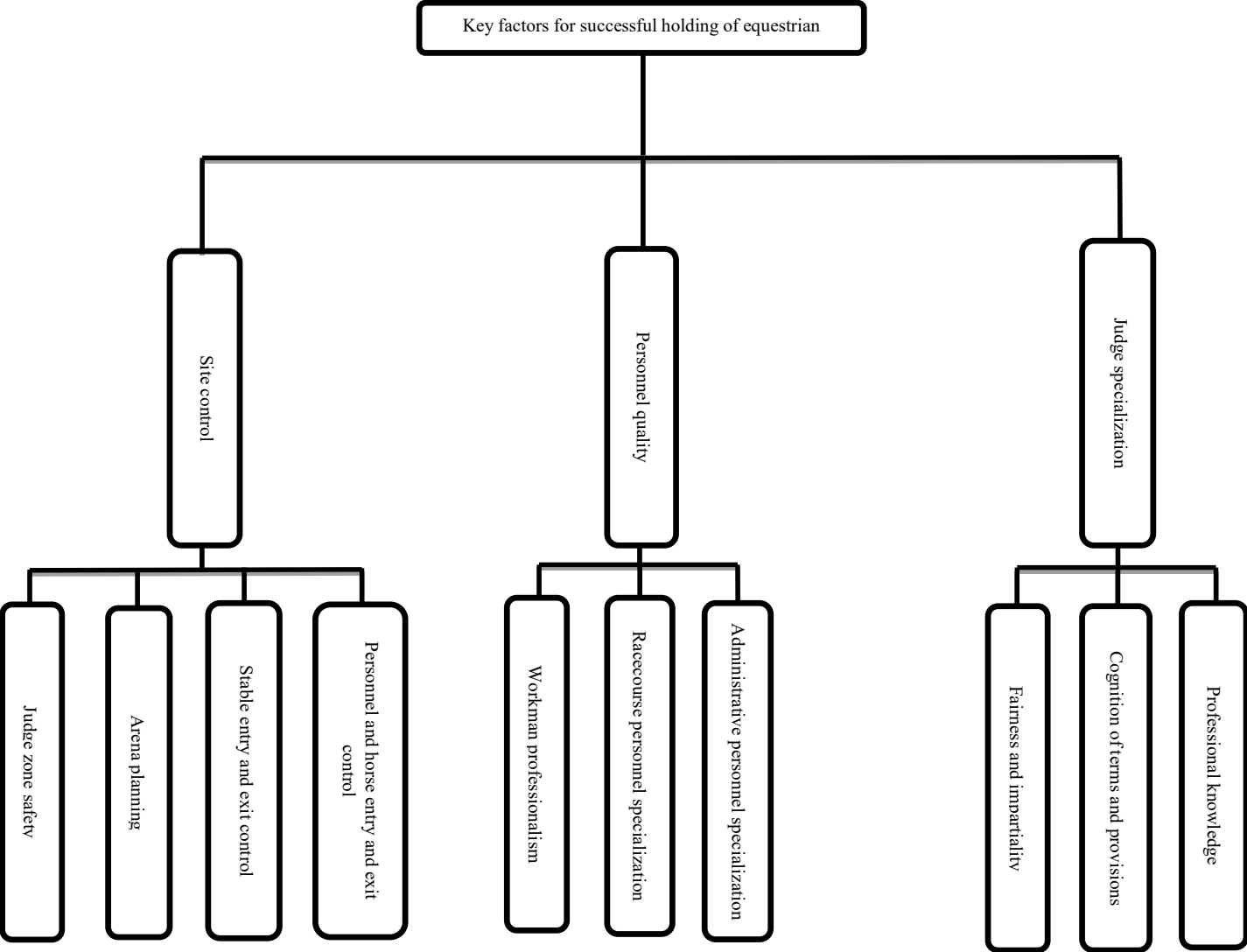


Figure 2. Decision-making hierarchical structure

#### *D. Judge specialization*

As a judge, he/she must adhere to and follow primarily FEI Code of Conduct for the Welfare of the Horse and perform his/her duties faithfully by having the Codex for FEI Judges as the guidelines.

1-1 Sufficient professional knowledge: According to the professional competence required for equestrian judges, they must have equestrian principles and common knowledge, practical experience from working as a judge and attend judge training to master latest international and Taiwan's competition regulations. They should also hold relevant manuals as amended, be familiarized with the equestrian rules of the international equestrian association and Taiwan, know relevant regulations and integrate the same in their individual practical operations, so that they are able to perform sufficiently the judge work assigned to them.

1-2 Cognition of provisions and regulations: In addition to sufficient professional knowledge, a judge should also know well the contents of competition provisions and regulations and if there is any modification or addition. For all, the requirements of the international equestrian association are to be taken as the code of conduct.

1-3 Fairness and impartiality: Judges must be objective and selfless in executing their work, including without limitation to the following:

1. Pre-establish no position for any event horseman and horse, or not be in a state of mind of preoccupation according to their past performances.
2. Treat horsemen in the same standard state of mind as far as possible.
3. Know and understand scoring criteria ensure to be consistent with comments.
4. In competitions, treat all horsemen equally.

#### 2. Personnel quality

2-1 The specialization of administrative personnel should have the following two points of traits:

1. It is imperative to be independent and merge to form a cooperative team.
2. Avoid any possible interest conflict.

2-2 Stable personnel specialization: In an event, the stable personnel and veterinarians must be on standby at any time. If any horse is injured or becomes exhausted in a competition, the player must get off the horse. The veterinarians must check that horse. The veterinarians must make every effort to ensure horses to get proper cares before and after an event. It should be ensured that a horse is treated in a humanitarian manner at the end of its competition career.

2-3 Workmen professionalism: Interact with horsemen in an open and kind attitude without showing excessively acquaintance-like enthusiasm. Show respect, prudence and sincerity for their fellow workers and horse friends or players at any time, with no comment or direction given to others.

#### 3. Site control

3-1 The following 4 points of rules should be available for horseman and horse entry and exit control:

1. Keep walkways and entrances clear at any time without piling any junk and garbage there.
2. For all considerations, horse welfare is in the first priority.
3. Arena, site personnel management, appliances and facilities, stable environment, horses and personnel, etc. The arrangement safety is in the first priority.
4. Personnel, horses should be treated fairly with interactions to be good.

3-2 The stable entry and exit control need to have the rules of the following 4 points:

1. It is not allowed to tie any horse in a stable, unless there is any special reason with the event organizer being informed with veterinarians and supervisory personnel indicating the reason in the data folder on the stable door.
2. There must be horse name, the racecourse affiliated to and the contact telephone of the responsible person on stable door.
3. In consideration of the safety of personnel and horses, children younger than 6-year old and pets are not allowed to enter into stable.
4. It is not allowed to smoke in stable with a "no smoking" sign to be put up at entrances noticeably.

3-3 Stable rules:

1. Judge and judge assistant confirmation, result collection personnel confirmation, point calculation personnel confirmation, confirmation to competition time, the stationery articles used in races, potable water in competition site, medical personnel and apparatuses, etc.
2. The points of the racecourse 20\*60m are to be clearly marked literally with the distance, entrance and exit personnel, site arrangement personnel to be determined and the site floor to be flat and smooth.

3. The arena entrance and exit managerial personnel are to open the door when the bell rings for admission for competition. After the players salute, close the door. After a competition is complete and the players salute, open the door. Close the door after leaving.

3-4 Judge zone safety

1. If in a host site, only one race arena 20\*60m, one warm-up area 20\*60m is planned, the first player after race commencement and the first player after half-time rest can enter into the arena for warm-up 5 minutes before race.
2. If a host unit can only offer one warm-up area 20\*60m, the number of persons in the area should be kept under control within 6. The six persons include 5 players who compete and 1 player having just finished a competition. The six persons are provided with 10-minute long-rein or loose-rein walk. If one player finishing a competition leaves and get off the horse directly, 1 player is allowed in to maintain 6 persons.

IV. ANALYSIS AND DISCUSSION OF RESULTS

After all AHP questionnaires are collected back completely, make a data analysis and pairwise comparisons, calculate the geometric average values and relative weights of different hierarchies and then establish a comparison matrix to obtain the advantage vectors, characteristic values and consistence. Finally, verify if the assessment is rational. Here are the results obtained from the data analysis:

1. Result analysis to the structural plane for the factors for successful holding of equestrian events:

Table 1: AHP questionnaire-structural plane analysis

	Site control	Judge specialization	Personnel quality	Weight	Ranking
Site control	1	2.1313	2.6665	0.4601	1
Judge specialization	0.2315	1	1.8218	0.2577	2
Personnel quality	0.3750	0.5489	1	0.1294	3

$\lambda_{max}=4.2055$  C.I.=0.0735 C.R.=0.0817 The requirement for consistence is met

Source: Compiled by this study.

$\lambda_{max}=4.2055$  C.I.=0.0735 C.R.=0.0817 The requirement for consistence is met

2. The results of questionnaire analysis to various principle: According to the assessment to the factors for successful holding of equestrian events, a comparison and analysis is made to the relative average and weight rankings among various influential factors under the three major structural planes below.

(1) Structural plane for site control assessment:

Table 2: AHP questionnaire-site control structural plane analysis

	Personnel and horse entry and exit control	Stable entry and exit control	Arena planning	Judge zone safety	Weight	Ranking
Personnel and horse entry and exit control	1	4.2463	2.8939	3.9930	0.4637	1
Stable entry and exit control	0.2355	1	2.0739	2.7253	0.1905	2

	Personnel and horse entry and exit control	Stable entry and exit control	Arena planning	Judge zone safety	Weight	Ranking
Arena planning	0.3456	0.4822	1	3.4031	0.1803	3
Judge zone safety	0.2504	0.3669	0.293	0.2938	0.0980	4

$\lambda_{max} = 5.3725$  C.I. = 0.0931 C.R. = 0.0831 The requirement for consistence is met

Source: Compiled by this study.

(2) Structural plane for judge specialization assessment:

Table 3: AHP questionnaire-judge specialization structural plane analysis

	Administrative personnel specialization	Stable personnel specialization	Workmen professionalism	Weight	Ranking
Administrative personnel specialization	1	1.3310	1.3467	0.2914	2
Stable personnel specialization	0.7513	1	2.0461	0.3099	1
Workmen professionalism	0.7425	0.4887	1	0.2188	3

$\lambda_{max} = 4.1265$  C.I. = 0.0422 C.R. = 0.0468 The requirement for consistence is met

Source: Compiled by this study.

(3) Structural plane for personnel quality assessment:

Table 4: AHP questionnaire-personnel quality structural plane analysis

	Professional knowledge	Cognition of provisions and regulations	Fairness and impartiality	Weight	Ranking
Professional knowledge	1	1.3147	3.1478	0.3947	1
Cognition of provisions and regulations	0.7606	1	4.0792	0.3805	2
Fairness and impartiality	0.3177	0.2451	1	0.1492	3

$\lambda_{max} = 4.1645$  C.I. = 0.0548 C.R. = 0.0609 The requirement for consistence is met



Source: Compiled by this study.

3. After analytical comparison from the above structural planes and decision-making factors, a general analysis is made to the three major structural planes and 10 influential factors. It is shown according to the analysis to the structural planes of the factors for successful holding of equestrian events that “site control” is superior to “judge specialization” and “personnel quality”; their weight values are 0.4601, 0.2577 and 0.1294 respectively, and the weights of their structural plane decision-making items are as follows:

- (1) Site control: “personnel and horse entry and exit control” > “stable entry and exit control” > “arena planning” > “judge zone safety”; their weight values are 0.4637, 0.1905, 0.1803 and 0.0980 respectively.
- (2) Judge specialization: “Stable personnel specialization” > “administrative personnel specialization” > “workmen professionalism”; their weight values are 0.3099, 0.2914 and 0.2188 respectively.
- (3) Personnel quality: “professional knowledge” > “cognition of provisions and regulations” > “fairness and impartiality”; their weight values are 0.3947, 0.3805 and 0.1492 respectively.

The table for weight assessment and analysis for AHP decision-making items is as follows:

Table 5: A comprehensive analysis to the importance of various factors

Target hierarch	Classification hierarchy/weight/ranking			Principle hierarchy/weight/ranking		
Factors for successful holding of equestrian events	Site control	0.4601	1	Personnel and horse entry and exit control	0.2133	1
				Stable entry and exit control	0.0876	2
				Arena planning	0.0830	3
				Judge zone safety	0.0451	9
	Personnel quality	0.2577	2	Administrative personnel specialization	0.0751	5
				Stable personnel specialization	0.0799	4
				Workmen professionalism	0.0564	6
	Judge specialization	0.1528	3	Professional knowledge	0.0511	7
				Cognition of provisions and regulations	0.0492	8
				Fairness and impartiality	0.0193	10

3. It is shown from the whole influential factor assessment that the general weight rankings from 1st place to 4th place are in proper order personnel and horse entry and exit control (0.2133), stable entry and exit control (0.0876), arena planning (0.0830), stable personnel specialization (0.0799). These 4 items of decision-making factors account for 55% of the total weight approximately. This column has items on which a high emphasis is laid by the personnel holding equestrian events; and the weight rankings from 5th place to 7th place are administrative personnel specialization (0.0751), workmen professionalism (0.0564) and professional knowledge (0.0511). These 3 items of decision-making factors account for 30% of the total weight approximately; the weight rankings from 8th place to 10th place are cognition of provisions and regulations (0.0451), judge zone safety (0.0451) and fairness and impartiality (0.0193). These 3 items of decision-making factors account for 15% of the total weight approximately. This column has items on which a medium emphasis is laid by the personnel holding equestrian events. Here is a general weight analysis to the degree of emphasis:

Table 6: A comprehensive analysis to the importance of various factors

Weight sequencing	Degree of emphasis (percentage)	Decision-making item	Total weight distribution	Structural plane being affiliated to
1	High degree of emphasis (55%)	Personnel and horse entry and exit control	<b>0.2133</b>	Site control
2		Stable entry and exit control	<b>0.0876</b>	Site control
3		Arena planning	<b>0.0830</b>	Site control
4		Stable personnel specialization	0.0799	Personnel quality
5	Medium degree of emphasis (30%)	Administrative personnel specialization	<b>0.0751</b>	Personnel quality
6		Workmen professionalism	<b>0.0564</b>	Personnel quality
7		Professional knowledge	<b>0.0511</b>	Judge specialization
8	Low degree of emphasis (15%)	Cognition of provisions and regulations	<b>0.0451</b>	Judge specialization
9		Judge zone safety	<b>0.0451</b>	Site control
10		Fairness and impartiality	<b>0.0193</b>	Judge specialization

## V. CONCLUSIONS

It is really not an easy thing to hold a national equestrian events. Due to being different in local characteristics in various counties and cities, the customs are different there, and as the weather condition and audience size are hard to control at that time, relevant units involved in an event fail to cooperate well in such a manner as being unable to fulfill the whole competition activities more efficiently. In recent years, wrong judgments and audience injuries have appeared one after another. A host unit can only ensure the integrity of a competition and fulfill efficiently every national event by constant training and self-criticism. Therefore, this research takes the equestrian events in the Republic of China as the investigation object to discuss what the event personnel think are the factors influencing the fluency of competitions and find the equestrian items wanted in the event management according to the status quo and provide the results to the high level of the national equestrian association and relevant equestrian judges to facilitate them to design and arrange relevant events, upgrade the motility and tacit cooperation of host units to ensure the efficiency to be heightened more efficiently in holding of equestrian events and reduce the life and property losses of the general public.

## REFERENCES

- [1] International FEI Events Supervision Manual, 1995.
- [2] Chang, Y.C. International equestrian association union event management duties, 2010.
- [3] Chen, L. J. The study of core competence about the university in the middle of Taiwan. 2008.
- [4] Yang, C. H., Huang, M. T., "apply corrected Deffey method and analytical hierarchy process to discuss the key factors for group purchase", Web Journal of Chinese Management Review, 18(1), February, 2015.
- [5] Teng, C. Y., Tseng, K.H. "the internal characteristics and applications of analytical hierarchy process (AHP) (the first), (the second) ", Journal of the Chinese Statistical Association, 27(6, 7), 1989.
- [6] Chu, C. P. "analytical hierarchy process (AHP) theory and practice—teaching materials", Department of Business Administration, National Dong Hwa University, 2009.

- [7] Duffield, C. (1988). The Delphi Technique. *The Australian Journal of Advanced Nursing*, 2(2), 41-45.
- [8] Hill, K. Q., & Fowles, J. (1975). The methodological worth of the Delphi forecasting technique. *Technological Forecasting and Social Change*, 7, 179-192.
- [9] Linstone, H.A. (1978). The Delphi Method. In J. Fowles (ED.), *Hand-book of Futures Research*, London: Greenwood Press, PP. 273-300.
- [10] Murry, J. W., & Hammons, J. O. (1995). Delphi: A versatile methodology for conducting qualitative research. *The Review of Higher Education*, 18(4), 423-436.
- [11] Rowe, G., & Wright, G. (1999). The Delphi technique as a forecasting tool: Issues and analysis. *International Journal of Forecasting*, 15, 353-375.
- [12] Stewart, T. R. (1987). The Delphi technique and judgmental forecasting. *Climatic Change*, 11, 97-113.
- [13] Saaty, T. L. & Vargas, L. G. (1984). The Ligmacy of Rank Reversal, *OMEGA*, 12(5), pp. 513-516.