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# The Hong Kong Recreation Management Association

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## Marketing factors influence people to participate in "Standard Chartered Hong Kong Marathon 2010"

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### INTRODUCTION

Standard Chartered Hong Kong Marathon [HKSCM] was recognized as a "Brand Hong Kong Event" by Hong Kong Special Administrative Region Government since 2005, it was an "M" mark event too, granted by the Major Sports Events Committee of the Sports Commission. Even though HKSCM is not the longest history race in Hong Kong, it is one of the most well known sporting events among Hong Kong people. Number of participants raised from around 1,000 in year 1997 to 60,000 in year 2010, there is no doubt about its success. HKSCM is one of the Hong Kong's biggest and major sporting events; it becomes a hallmark event in Hong Kong.

HKSCM is not the only one distance running race in Hong Kong, over 60 races were organized in year 2009 (Sportsoho, n.d.). At the same time, a lot of other kind of sporting events were held too, such as swimming, triathlon and cycling race; some of them have a long history in Hong Kong, however, the participation rate of all these events have a very big different to compare with HKSCM. What is the factor to attract people to decide to participate in HKSCM but not the other distance running races or sporting events?

The report of "Consultancy Study on Sport for All Participation Patterns of Hong Kong People in Physical Activities" (Community Sports Committee of the Sports Commission, 2009) found that the primary reasons for people not participated in physical activities were "no spare time due to work/study" (30.7%), "tired" (17.5%) and "lazy" (14.6%). No matter it was marathon, half marathon or 10km race, the strength of training was far over the requirement to gain health benefit (Ogles & Masters, 1998); the participants need to spend time to train and the level of training is quite high. Anyway, HKSCM 2010 had attracted 60,000 people to enroll; some of the participants did not participate in any race before, or even some of them were not a regular runner. Why HKSCM 2010 can attract such a lot of people to enroll? Even they needed to sacrifice their resting time after work or study for training.

If an individual decided to spend time and effort to participate in sports and exercise, he/she should be possible to gain certain physical or psychological benefit from their participation; no matter it was intrinsic or extrinsic benefit (Renssen, 2007; Department of Health, 2004; World Health Organization, 2003). According to different researches, individual was

motivated by different factors from psychological, physical or sociological aspect when they participated in sport and exercise (e.g. Funk, 2009). Funk, Filo, Beaton, and Pritchard (2009) measured socialization, performance, excitement, esteem and diversion in their research. Some researchers focused on examining different personal incentives to motive an individual participated in physical activities (Raviv and Netz, 2007; Schilling & Hayashi, 2001). In order to increase the participation rate in the sporting events, the sporting event organizers should consider how they can satisfy all these motivation factors, under this condition, the aspect of marketing may be possible to help them to fulfill the requirements.

"Exchange is a key concept in the definition of marketing" (Lamb, Hair, and McDaniel, 2006), marketing involves an exchange process to two parties. Cannon, Perreaut, and McCarthy (2008) stated that marketing occurs when two or more parties have their need and they are willing to exchange something in order to satisfy the need of other party. Zhang & Lam (2003) had proved that three marketing demand factors were predictive of professional sport consumption. During past 14 years, organizer of HKSCM added different marketing elements

into the event in order to attract more participants. However, we did not know the influence of these marketing elements to the decision of an individual to participate in HKSCM. In the study, I examined the importance of different marketing factors to influence an individual to make decision to participate in HKSCM 2010.

How to increase the participation rate will become one of the major questions of sporting event organizers. I hope that the result of this study can help marketers to understand which dimensions to marketing are most important as an individual decide to participate in a sporting event. It can provide some hints to them for their marketing plan. On the other hand, I hope that the study can facilitate more researches to focus deeply on the marketing perspective to influence direct participation in sporting events in future.

## METHODS

### Objectives

The main purpose of the study was to find out the importance of different dimensions to marketing when an individual decided to participate in the sporting events. I selected to study the participants of HKSCM 2010 since HKSCM is the remarkable successful sporting event in Hong Kong with very high participation rate. I focused on 7 dimensions to marketing in this study; they were product, price, promotion, place, public relation, brand, and technology. Five Ps - Product, Price, Promotion, Place and Public Relation [PR] are the marketing mix in sport marketing which were stated by Mullin et al. (2007). Two additional dimensions were added in this study, they were Brand and Technology. All these 7 dimensions to marketing were ranked according to their importance after the study.

According to the research from Zhang & Lam (2003), they found that market demand factors were positively predictive of professional sport consumption. The second purpose of the study was to determine how the 7 marketing factors related to the intention of an individual to participate in HKSCM 2010.

Masters & Ogles (1995) claimed that the motivation for marathon running was different for varying

degrees of experience. The third purpose of the study was to find whether the new participants and repeated participants in HKSCM 2010 had any differences in the importance of marketing factors.



### Significance of the Study

A lot of researches regarding the sports and physical activities participation focused on the social, psychological, or personal aspects (Funk et al., 2009; Raviv & Netz, 2007; Schilling & Hayashi, 2001). The sports marketers should work out a marketing plan to satisfy above motivation factors. On the other hand, a lot of researchers studied the marketing variables to influence spectator to attend professional sporting events (Zhang & Lam, 2003; Hansen & Gauthier, 1989; Wells, Southall, and Peng, 2000; Lee, 2000; Lu, 2002; Bae, 2003), but they did not study the influence of marketing factors to the decision of direct participation in sporting events. Under this condition, I conducted a research to study the importance of 7 marketing factors to influence an individual when he/she decided to participate in HKSCM 2010. I also measured how the factors influenced the intention of subjects to participate in the event.

It is important for sport marketers to move consumers from lower level to higher level in the sport consumer escalator (Mullin et al., 2007). It is very

hard to find new consumer, the most difficult movement is to get a non-consumer on the escalator, anyway, marketers should take it as their very important task since it is the main factor to keep the health development of an organization. Under this condition, I conducted a study to find the difference between new participants and repeated participants when they decide to participate.

Participation rate is critical for sporting event organizers. I hope that the result of the study can provide a hint to them as they develop their marketing plan to retain current participants as well as to attract new one. And also, I hope that the study can facilitate more researches to focus deeply on the marketing perspective of participation sporting events in future.

### Studying Subjects

Participants of HKSCM 2010 were selected to conduct a face to face interview. Subjects were randomly selected in the "Marathon Expo" which was held on 20<sup>th</sup> February 2010 at Victoria Park, Causeway Bay, Hong Kong. All subjects, who had been confirmed that they were the runner of HKSCM 2010, were requested to fill up a questionnaire on site. Consent was given by the subjects before they started to answer the questionnaire. 233 subjects were asked and returned the questionnaire. 218 valid questionnaires were used to conduct the study (N=218).

### Instrument

Questionnaire was consisted by 2 sections. The first section - "Event Attendance Factors" asked the subjects to select the importance of different items when they decided to participate in HKSCM 2010. 31 items, which related to different dimensions to marketing, were selected after the review of information of HKSCM 2010, these 31 items were belonged to 7 marketing factors; they were "Product", "Price", "Place", "Promotion", "PR", "Brand" and "Technology". A 5-point Likert-type scale ranging from 1 (Not important at all) to 5 (Very important) was used. Subjects were requested to select a value from 1 to 5 to indicate the importance of each item when they decided to participate in HKSCM 2010. If subjects selected 1, it indicated that the subjects to consider the item were "not important at all" when he/she



made the decision; in contrast, the item was very important if the subjects selected 5.

Second section "Demographics" was consisted by 10 items. Subjects were requested to identify their gender, age, race category, number of year participation, frequency of running, experiences in other distance running events, living district, education level, career and monthly income.

### Analytical Procedure

Statistical Package for the Social Sciences (SPSS) 15.0 was employed in the study. All valid data were entered to the SPSS 15.0 for analysis. Cronbach's Alpha analysis on the data was performed prior to other test in order to assess the internal consistency of the questionnaire. After that, descriptive and frequencies analysis were performed to analyze the demographics characteristic of the subjects. The next step was to find the mean value of each marketing factors in order to measure the rank order of the importance of marketing factors to influence the subjects to participate in HKSCM 2010. And then, correlation and stepwise regression analysis was performed to determine how marketing factors influence the intention of subjects to participate in HKSCM 2010. Finally, one way ANOVA test was performed to test whether the new participants and repeated participants in HKSCM 2010 had any significant differences in importance of marketing factors when they decided to participate in HKSCM 2010.

## RESULTS

### Demographic

218 valid questionnaires were used to conduct the research (N=218). According to the results, 172 subjects were male (78.9%) and 46 were female (21.1%). The age of 2.3% of the subjects were under 18, 35.8% were 18 to 30, 32.6% were 31 to 40 and the rest were above 40 (see Figure 1).

Over half (57.3%) of the subjects were participated in 10km race, 28% were participated in half marathon and 14.7% were participated in full marathon. Regarding the experiences of the subjects in HKSCM, 34.4% subjects were the new participants (see Figure 2). At the same time, the result showed that 49.5% of the subjects had participated in other distance running events before. The study found that 7.3% subjects did not have any training and 68.3% of the participants just performed 2 days or less running training per week at recent 6 months (see Figure 3).

27.1% of the subjects lived in Hong Kong Island, 31.7% lived in Kowloon and the rest lived in New Territories. Regarding the education level, the result showed that majority of subjects (61.5%) were Bachelor Degree or above (see Figure 4).

27.5% of the subjects were professional, 17.4% were manager or administrator and 16.5% were clerk (see Figure 5). The monthly incomes of 50% subjects were higher than HK\$20,000 (see Figure 6).

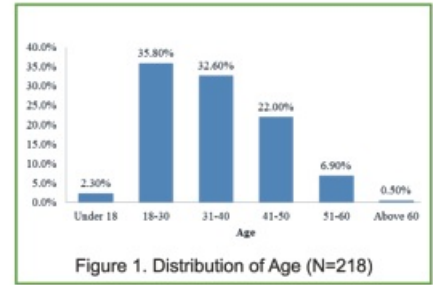


Figure 1. Distribution of Age (N=218)

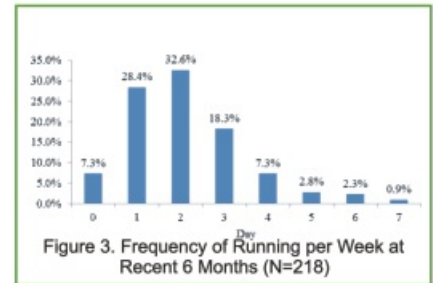


Figure 3. Frequency of Running per Week at Recent 6 Months (N=218)

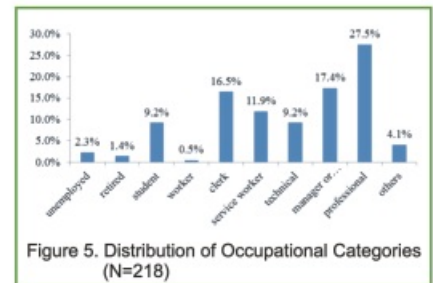


Figure 5. Distribution of Occupational Categories (N=218)

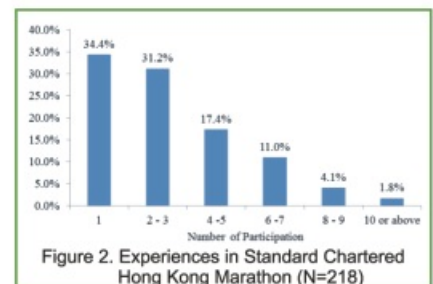


Figure 2. Experiences in Standard Chartered Hong Kong Marathon (N=218)

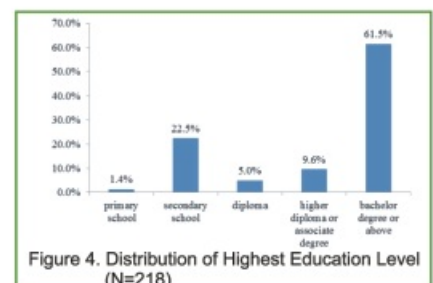


Figure 4. Distribution of Highest Education Level (N=218)

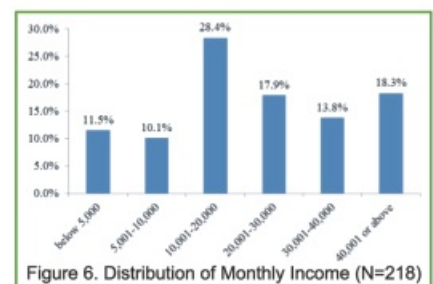


Figure 6. Distribution of Monthly Income (N=218)



## Reliability

First part of the questionnaire was consisted by 31 items and they were categorized to 7 marketing factors. The Cronbach's Alpha of 7 marketing factors were "Brand" ( $\alpha=0.849$ ), "Place" ( $\alpha=0.718$ ), "Promotion" ( $\alpha=0.834$ ), "Price" ( $\alpha=0.761$ ), "Technology" ( $\alpha=0.763$ ), "Product" ( $\alpha=0.685$ ) and "PR" ( $\alpha=0.659$ ). The Cronbach's Alpha was 0.934 for all 31 items.

## Means

Mean value of all factors were higher than 3.0 except "Promotion" ( $M=2.952$ ,  $SD=0.839$ ) (see Table 1). The mean value of "Place" was the highest ( $M=3.644$ ,  $SD=0.982$ ) among 7 factors. At the same time, mean value of all 7 factors was 3.282 ( $SD=0.642$ ).

The top 5 highest mean value items among 31 items were "Event provides different distance race

choices" ( $M=4.041$ ,  $SD=0.876$ ), "Result can be checked online" ( $M=3.922$ ,  $SD=1.015$ ), "Event provides different convenient registry methods" ( $M=3.899$ ,  $SD=0.945$ ), "The entry fee can be paid by credit card" ( $M=3.766$ ,  $SD=1.122$ ) and "Event provides different convenient payment methods" ( $M=3.752$ ,  $SD=1.066$ ).

If considering the mean value of 7 marketing factors for new participants and repeated participants, result showed that rank order of new participants were different to the result of overall participants (see Table 2).

## Correlation and Stepwise Regression Analysis

**Correlation.** Relationship between the number of year participated in HKSCM to different marketing factors were shown at Table 3.

The result showed that "Place" had strongest relationship to number of year participated in HKSCM ( $r=0.155$ ,  $p=0.011$ ), the value were negative for "PR" ( $r=-0.089$ ,  $p=0.095$ ) and "Promotion" ( $r=-0.028$ ,  $p=0.340$ ).

**Stepwise Regression Analysis.** Mean value of 7 marketing factors and all 31 items were designated to be the independent variables. The result indicated that the best predictors for the intention to participate in HKSCM2010 were "Place" and "PR". The other 5 variables were not included in the list of predictors. The Multiple R for the relationship between the independent variables and the dependent variables was 0.246 and the R square was 0.07. The B coefficient for the relationship between the intention of the subjects to participate in HKSCM 2010 and the independent variables "Place" and "PR" were 0.259 and -0.241 respectively (see Table 4 and Table 5).

Rank	Factor	Mean	Std. Deviation
1	Place	3.664	0.809
2	Technology	3.485	0.852
3	Price	3.452	0.871
4	Brand	3.274	0.897
5	Product	3.162	0.698
6	PR	3.070	0.748
7	Promotion	2.867	0.861
	All	3.282	0.642

Table 1: Rank Order and Mean Values of Marketing Factors (N=218)

Rank	Factor	Mean	Std. Deviation
1	Place	3.487	0.784
2	Price	3.400	0.895
3	Technology	3.350	0.827
4	Brand	3.200	0.913
5	PR	3.197	0.661
6	Product	3.136	0.623
7	Promotion	2.952	0.839

Table 2: Rank Order and Mean Values of Marketing Factors for New Participants (N=75)

Number of year participated in HKSCM	Pearson Correlation
Brand	0.077
Product	0.073
Price	0.039
Place	0.155
Technology	0.110
PR	-0.089
Promotion	-0.028
All 31 items	0.063

Table 3: Correlation between Number of Participated in HKSCM and Marketing Factors (N=218)

Model	R	R Square	R Square Change	F Change	p
1	0.155 <sup>a</sup>	0.024	0.024	5.327	0.022
2	0.264 <sup>b</sup>	0.070	0.046	10.571	0.001

a. Predictors: (Constant), Place

b. Predictors: (Constant), Place, PR

Table 4: Model Summary of Stepwise Regression Analysis of Variance for Intention to Participate in Standard Chartered Hong Kong Marathon and Marketing Factors

Independent Variable	Unstandardized Coefficients B	T	Sig.
Place	0.259	3.781	0.000
PR	-0.241	-3.251	0.001

Dependent Variable: number of years participated in HKSCM

Table 5: Coefficients of Stepwise Regression Analysis of Variance for Intention to Participate in Standard Chartered Hong Kong Marathon and Marketing Factors

	Subgroup	Mean	SD	F	Sig.
Place	new	3.487	0.784	5.608	0.019
	repeated	3.757	0.809		
Recommendation from family member or friend	new	3.573	1.029	15.946	0.000
	repeated	2.944	1.143		
Result can be checked online	new	3.733	1.106	4.004	0.047
	repeated	4.021	0.953		
The race provides chance for me to run with elite runner	new	1.987	1.020	4.771	0.030
	repeated	2.329	1.137		
Attractive start and finish point of the race	new	3.173	1.190	7.483	0.007
	repeated	3.622	1.131		
The running route is passing through the famous location of Hong Kong	new	3.307	1.252	4.718	0.031
	repeated	3.671	1.137		

Table 6: ANOVA Test Result for New Participants (N=75) and Repeated Participants (N=143)

## One Way ANOVA test

The result informed that only the mean value of factor "Place" was significantly different ( $p=0.019$ ) between new participants ( $M=3.487$ ,  $SD=0.784$ ) and repeated participants ( $M=3.757$ ,  $SD=0.809$ ). However, the ANOVA test result of individual item from all 31 items showed that the items "Recommendation from family member or friend" ( $p<0.0001$ ), "Result can be checked online" ( $p=0.047$ ), "The race provides chance for me to run with Elite runner" ( $p=0.030$ ), "Attractive start and finish point of the race" ( $p=0.007$ ) and "The running route is passing through the famous location of Hong Kong" ( $p=0.031$ ) were significantly different between new participants and repeated participants (see Table 6)



## DISCUSSIONS

### Demographic Characteristics

According to the result of gender distribution, the ratio between male and female were around 4 to 1. It also showed that over 68% of the subjects were fallen into the age range from 18 to 40. Most subjects were well educated (Bachelor degree or above = 61.5%), 17.4% were manager or administrator, 27.5% were professional, and the monthly income of 50% subjects were higher than HK\$20,000. It indicated that long distance running events attracted more male and middle class to participate.

The distribution of race category of subjects (10km=57.3%, half marathon=28.0% and full marathon=14.7%) matched the quota to be set by the organizer (10km=37,000, half marathon=15,000 and full marathon=8,000).

Regarding the result of frequency of running per week at recent 6 months, 7.3% subjects never had running training, 28.4% subjects just had 1 day training per week, and 32.6% subjects had 2 days training in average (total 68.3% subjects had 2 days or less running per week). A lot of participants did not have sufficient training before the race; it may be possible to explain why the injury rate in HKSCM 2010 was quite high; 1,501 medical treatments and 31 hospitalizations (Hong Kong Amateur Athletic Association, 2010, February 28). On the other hand, 31.7%

of the subjects had 3 days or more training per week, the result was similar to the finding from the report of Community Sports Committee of the Sports Commission, 2009 (31.5% of the population in Hong Kong had 3 days or more physical activities per week). The result told that the participation rate in physical activities did not have any improvement even though the subjects had decided to participate in a long distance running race.

34.4% subjects were new participants in HKSCM 2010, however, quota of number of participant was just increased 10% from 55,000 in 2009 to 60,000 in 2010, and it indicated that 24% participants at least in 2009 did not enroll in 2010 again. Shank (2005) and Mullin et al. (2007) defined that sports participants or consumers will go through the decision making process stage of "post-participation evaluation" to decide to participate in the event again or not. It seems that participants had bad experience in the past events, it affected their post-participation evaluation, and the evaluation result was not to participate in 2010 again. On the other hand, 50.5% subjects had never participated in other distance running events; they can become a good source of participants if marketers can attract them to participate in their events.

### Internal Consistency of Questionnaire

George & Mallery (2008) stated that the internal consistency was excellent if Cronbach's Alpha -  $\alpha > 0.9$ ; good if  $\alpha > 0.8$ ; acceptable if  $\alpha > 0.7$ ; questionable if  $\alpha > 0.6$ ; poor if  $\alpha > 0.5$  and unacceptable if  $\alpha < 0.5$ . The result showed that internal consistency of overall 31 items was excellent since Cronbach's Alpha was 0.934. As considering individual marketing factors, "Brand" and "Promotion" were good ( $\alpha=0.849$  and  $\alpha=0.834$ ), "Technology", "Price" and "Place" were acceptable ( $\alpha=0.763$ ,  $\alpha=0.761$  and  $\alpha=0.718$ ). However, "Product" and "PR" were just marginal acceptable since their Cronbach's Alpha was 0.685 and 0.659 respectively.

### Importance of Marketing Factors

Kerin et al. (2006) stated that marketing plan is the core of the business plan; the direction of all marketing activities of an organization is based on the marketing plan. Marketing mix is the main elements to tell the marketers what kind of factor should be considered. In the study, 7 marketing factors were measured.





Mean value of the range 1 to 5 was 3.0. Items would be considered to have a tendency toward "more important" if the mean value was higher than 3.0, but "less important" if lower than 3.0. According to the mean value of each factor, the result showed that factors "Place" and "Technology" ranked at top two among 7 factors. Hoyle (2002) mentioned that place is critical when an individual decides to attend an event. Subjects ranked "Place" ( $M=3.644$ ,  $SD=0.982$ ) to be the most important factors when they decided to participate in HKSCM 2010. "Place" had 2 meanings in the study; one was the venue, facility or location of the event. The other meaning was the channel to deliver the products to the participants. Zhang & Lam (2003) found that Game Attractiveness was the strongest predictive factors of game consumption, Lee (2000) also concluded that sport direct consumers considered Game Attractiveness was the most important factor when they decided to attend games. It implied that the sporting event organizers should consider what the attractiveness and uniqueness of the event are. The starting and finishing point of HKSCM 2010 was located at the heart of the city; it passed through 3 bridges and 3 tunnels in Hong Kong, and it passed through different famous locations in Hong Kong. The study showed that location of the starting, finishing point as well as the running route were the major

attractive elements of HKSCM 2010. Besides location, the other component of "Place" was the channel to deliver the product to the participant. The result of the study indicated that a convenience distribution channel was important. Shank (2005) said that stadium accessibility will affect the decision of attendance. HKSCM 2010 was started at a very early morning, it may be the reason why subjects considered a convenient transportation arrangement to deliver them to the starting point was important. On the other hand, a convenient registry method was important too. According to the model of participant consumption from Shank (2005), it mentioned that the participation decision is influenced by three factors; they are internal factors, external factors, and situational factors. One of the elements in situational factors is time. Hong Kong is one of the very busy cities in the world; the average weekly working hours was 49.6 hours and 57.1% of people worked late in the evening (Welford, 2008). Time will become an important constraint to affect people to participate in sports. Under this condition, can organizer provide a convenient method for enrollment will become an important factor to influence participation decision.

Kitchin (2007) stated that technology can help to improve the performance of the sport and strengthen the communication to the customer. "Technology" was the second important factor among all marketing

factors in the study. The main new technology to be used by HKSCM 2010 was internet and mobile technology. The result was similar to the finding from Filo, Funk, and Homby (2009); they found that the intention to participate in the event was significantly increased after the subjects visited the web site. Bae (2003) also concluded that the use of internet was strongly related to the frequency of game attendance. The factor "Technology" in HKSCM 2010 was used to enhance the communication between organizer and subjects, and provided a convenient channel to the subjects to enroll in the event. As mentioned before, time is a major barrier for people to participate in physical activities (Community Sports Committee of the Sports Commission, 2009). By using information technology, information of the event was easy to be assessed, and subjects were also easy to registry through internet. It can save a lot of time for the participants. According to the demographic characteristic of the subjects, most of them were from age 18 to 40 (68%) and well educated (61.5%); young and well educated people may consider technology is important in their daily life.

"Price" was ranked at third among 7 factors when subjects decided to participate in HKSCM 2010. A lot of researchers had mentioned the importance of price when individual decided to participate in the sports (Mullin et al., 2007; Pitts & Stotlar, 2002;



Ferreira, 2001; Lee, 2000). However, the result of this study indicated that "Place" and "Technology" were 2 factors which the HKSCM 2010's participants considered more important than "Price", the result was similar to Ferrerira (2001) finding which price was the determinant attribute for attendance decision but other factor (product characteristic) was much important than price. Lee (2000) also concluded that Game Economic was the factor which ranked at the bottom among 4 factors; the other 3 factors were Game Attractiveness, Game Schedule and Game Promotion. On the other hand, the result of the study was different to Bae (2003) research which found that the ticket price and ticket discount were very important for a number of samples in his study to decide to attend the game. The entry fee of HKSCM 2010 was HK\$320, participants could enjoy discount to HK\$270 if they enrolled before 30 November 2009. The monthly income of 50% subjects was higher than HK\$20,000, it was reasonable that the current entry fee could not become a burden to the subjects, and the early registration discount was not an important attractive factor to the participants.

HKSCM is the only one distance running event to be recognized as a "Brand Hong Kong Event" by the Hong Kong Special Administrative Region Government, it is no doubt that HKSCM is a typical brand of distance running event in Hong Kong. Brand of "Standard Chartered Hong Kong Marathon" may become an important factor when



individual decided to participate in the HKSCM 2010. "Product" in the study included both tangible and intangible aspects; the race, certificate, special experience and atmosphere were included in this factor. The result showed that both factor "Product" and "Brand" just ranked at the middle position, anyway, the mean value of "Product" was 3.162 (SD=0.698) and "Brand" was 3.274 (SD=0.897) which were higher than 3.0, it indicated that "Product" and "Brand" were still considered as an important factors when subjects made the decision.

Advertisement, special activity, sales promotion and personal selling are the components in the promotion mix. A lot of text books also include public relation into the mix too (e.g. Kerin et al., 2006). Under this condition, it was reasonable that both factors "PR" and "Promotion" were ranked at similar level. The result showed that "PR" and "Promotion" were ranked at the bottom position; it was similar to Zhang & Lam (2003) finding. They claimed that Promotion was the weakest predictor among three Market Demand Factors (Attractiveness, Promotion and Economics); Lee (2000) also found that game promotion factor was not significant for the sample to attend the future professional sporting events. Most promotion and PR activities of HKSCM 2010 were performed after the enrollment. However, the quota of participation was full within three weeks after opened for application

(Chan, 2010, March 1). The effect of the promotion activities to stir the desire of people to participate in the event was not obvious. It may be possible to explain why "Promotion" and "PR" were considered to less importance when subjects decided to participate. And also, the content of special activities and the design of T-shirt and souvenirs were similar every year, so, the attractiveness and effect of the promotion elements were doubtful,

Overall mean value ( $M=3.282$ ,  $SD=0.642$ ) of 7 factors were higher than the middle value 3.0, it indicated





that marketing factors were important to influence the subjects to participate in HKSCM 2010. Under this condition, a good marketing plan is critical to influence the participation rate of the sporting event. As considering the mean value of 31 individual items in the study, "Event provides different distance race choices" ( $M=4.041$ ,  $SD=0.876$ ), "Result can be checked online" ( $M=3.392$ ,  $SD=1.015$ ), "Event provides different convenient registry methods" ( $M=3.899$ ,  $SD=0.945$ ), "The entry fee can be paid by credit card" ( $M=3.766$ ,

$SD=1.122$ ) and "Event provides different convenient payment methods" ( $M=3.752$ ,  $SD=1.066$ ) were ranked at top five positions. In Hong Kong, HKSCM 2010 provided both 10km, half marathon and full marathon choices to the participants with different starting time, the result showed that "Multi-Choices" was importance for the subjects when they made the decision. It was the same as Cannon et al. (2008) belief; marketers must consider providing "whole" Product to their consumer to meet their different needs. "Convenient" was the other common components between second to fifth important items. Community Sports Committee of the Sports Commission (2009) reported that the top one barrier to affect Hong Kong citizen to participate in physical activities was "No spare time due to work/study" (30.7%). Hong Kong people was very busy and worked very late (Welford, 2008), whether the organizer can provide convenient method for information checking, enrollment, fee payment and transportation would become an important consideration of Hong Kong people to participate in a sporting event.

### Marketing Factors Affect Intention of Participation

In order to find how the marketing factors influenced the intention of subjects to participate in HKSCM 2010, stepwise regression analysis was performed. Zhang & Lam (2003) concluded that 3 Marketing Demand Variables - Attractiveness, Promotion and Economics were the significant predictors to the professional sport consumption; Wells et al. (2000) also found that 13 variables could be used to explain the attendance at Division II Football Games after a regression analysis. However, the result of the study indicated that just "Place" and "PR" were the predictors. The result of the study was not consistent to other researches (Zhang & Lam, 2003; Bae, 2003; Wells et al., 2000; Lee, 2000). Anyway, most of the researches focused on the attendance of professional sporting event (e.g. Bae, 2003), they studied the spectators but not the participants, under this condition, the impact of marketing factors to the intention to participation would be different.

According to the analysis, R square was 0.07; it meant that "Place" and "PR" explained just only 7% of the variation in decision to participate in HKSCM 2010. The result showed that the predictability for intention to participate in HKSCM 2010 by these 7 marketing factors was poor. Regarding all correlation values between numbers of year participated in HKSCM and 7 marketing factors were less than 0.2, it showed that the relationship between them was very weak too.

The B coefficient of "Place" and "PR" were 0.259 and -0.241 respectively, it meant that factor "Place" had a positive relation to the intention of participation in HKSCM 2010 but "PR" had a negative relation. If the subjects considered that "Place" was more important, they would have a stronger intention to participate in HKSCM 2010, the result coincided to the finding of the importance of each marketing factors, which "Place" was ranked at top among 7 factors. Regarding the negative relation of "PR" to the intention of participation, it indicated that if the subjects scored the factor "PR" high, they had a lower intention to participate in the event, it implied that the performance of public relation of the event was not satisfied. It may also explain why the percentage of participants in past years not participate again in 2010 was quite high.

In the analysis, I assumed that an individual will have stronger intention to participate in HKSCM 2010 if he/she has participated in HKSCM more times, under this condition, the "number of year participated in Standard Chartered Hong Kong Marathon" was designated to be the dependent variable; however, the relationship between them may not as strong as my expectation. And also, the study was conducted after the subjects collected the runner's pack. The participative intention of subjects would be affected seriously since they had already participated in the event. Anyway, in order to get a more accurate result, another study can be conducted before the enrollment and an additional question regarding the participative intention should be asked directly.



## Differences between New Participants and Repeated Participants

"Place" was ranked as the most important factor and "Promotion" was ranked as the less important factor for both new and repeated participants, however, the factor "Price" and "PR" for new participants were ranked higher than "Technology" and "Product" respectively which was different to the result of repeated participants.

One way ANOVA test result indicated that the mean value difference of the factor "Place" was significant ( $p=0.019$ ) between new participants ( $M=3.487$ ,  $SD=0.784$ ) and repeated participants ( $M=3.757$ ,  $SD=0.809$ ). Repeated participants considered that "Place" was more important than new participants when they decided to participate in HKSCM 2010.

As considering all 31 items, top 5 highest mean value items for new participants were "Event provides different distance race choices" ( $M=4.120$ ,  $SD=0.734$ ), "Result can be checked online" ( $3.733$ ,  $SD=1.107$ ), "Event provides different convenient registry methods" ( $M=3.733$ ,  $SD=0.949$ ), "Transportation arrangement on the date of event is convenient to me" ( $M=3.733$ ,  $SD=1.095$ ) and "Event provides different convenient payment methods" ( $M=3.680$ ,  $SD=1.129$ ). Same as repeated participants, "choices" was also the very important factor for the new participants when they made the decision. However, a convenient transportation arrangement appeared at top 5 important items for the new participants but not at repeated participants. One of the possible reasons was that HKSCM 2010 started at very earlier morning (first race started at 5:15am), if no special transportation arrangement to deliver participants to the starting point, it would become a big barrier to participants especially new participants to decide to participate.

When made decision to participate in HKSCM 2010, the repeated participants considered that items "Attractive start and finish point of the race" ( $p=0.007$ ) and "The running route is passing through the famous location of Hong Kong" ( $p=0.031$ ) were more important than



the new participants, both items were related to the attractiveness and uniqueness of the place. The repeated participants also considered that "Result can be checked online" ( $p=0.047$ ) was more important than new participants, one possible explanation is that the new participants more concern that whether they can finish the race but not the finishing time. Under this condition, the new participants will consider that the convenience to check the result is less important than the repeated participants. Similar result of item "The race provides chance for me to run with elite runner" ( $p=0.030$ ) was showed too, the new participants considered that this item was less important to compare with repeated participants. The new participants may concern self-competition is their main task but not compete to other people. It may be possible to be explained by the finding from Masters & Ogles (1995), they found that the motivation of an individual to participate in his/her first marathon was health and wealth concerns, self-esteem, and personal goal achievement, however, the veteran marathon runner was motive by "marathon identity" which included social identity, competition, recognition and affiliation. On the other hand, the result told that new participants considered the item "Recommendation from family member or friend" ( $p<0.0001$ ) was more important than the repeated participants when they made decision to participate in HKSCM 2010. Shank (2005) stated that participation decision is affected by internal, external and situational factors, which external factors include culture, social class, reference groups, and family. The result indicated that it was not easy to make a first time decision to participate in distance running, encouragement by family and reference groups was important for new participants.

## CONCLUSION

In order to find the importance of marketing factors to influence an individual to participate in the event, the study was conducted. The participants of HKSCM 2010 ( $N=218$ ) were selected to perform the survey. The result showed that attractiveness and uniqueness of the location of the sporting event was important to attract more people to participate in the event. Organizers should select some special location or hallmark place to perform the event. And also, organizers should provide convenient method to people for event information collection, enrollment, entry fee payment, result checking and communication. Under this condition, a well organized and comprehensive web site should be used. Organizers should consider to provide a convenient method to deliver the participant to the location of the event, the difficulty of the participant to approach to the location of the event will become a barrier for the people to participate in the event. A comprehensive promotion plan should be proceed, all promotion activities should start as earlier as possible, otherwise, the effect of promotion will be reduced seriously. On the other hand, incentive can provide to the participants if they can bring more new participants to participate in the event, publicity of the event should be done better, word of mouth is an important factor to encourage people to participate in the event first time.

Regarding the relation between the intention to participation and marketing factors, "Place" and "PR" were 2 predictors to predict the intention of subjects to participate in the event, however, the predictability was weak. In order to get a more accurate result, another study can be conducted before the enrollment and an additional question regarding the participative intention should be asked directly. **RMA**



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# COMPARISON OF TENNIS SERVE PERFORMANCE BETWEEN FATIGUED AND NON-FATIGUED CONDITIONS

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## Introduction

Tennis is an intermittent sport with often prolonged duration. In this regard, 1.5 hours has been reported to be a typical average match length (Bergeron et al., 1995), but sometimes it lasts more than 5 hours (Christmass, Richmond, Cable, Arthur, & Hartmann, 1998). Despite the long duration of play, tennis is characterized by 510 s of high intensity bouts interspersed with 1020 s of short recoveries; the effective playing time in a match is 1030% and the work to rest ratio is between 1:1 and 1:4 (Fernandez, MendezVillanueva, & Pluim, 2006). A 20 s pause between points is the maximum duration allowed by the International Tennis Federation (ITF, 2010). In Grand Slam tournament matches (1997-1999), the average rally length is  $6.3 \pm 1.8$  s and  $7.7 \pm 1.7$  s on hard and clay surfaces, respectively (O'Donoghue & Ingram, 2001).

With such specific physiological demands in mind, to what extent fatigue would be induced and whether it impedes performance in trainings and matches are of great interest. However, equivocal results have been found due to the multifaceted determinants of tennis performance (Hornery, Farrow, Mujika, & Young, 2007b). Some studies showed that fatigue greatly reduced serve accuracy and velocity and a slowing of the serve racketarm acceleration phase occurred (Davey, Thorpe, & Williams, 2002, 2003; Hornery, Farrow, Mujika, & Young, 2007a; Kovacs, 2007; Vergauwen, Brouns, & Hespel, 1998; Vergauwen, Spaepen, Lefevre, & Hespel, 1998). On

the other hand, Ferrauti, Pluim, and Weber (2001) found that under extreme fatigued condition (blood lactate reached 9.0 mmol/L), the number of target hits increased and the number of errors decreased, suggesting that some players are still able to perform skillfully even under great fatigue. In their review, Horney et al. (2007b) criticized on the experimental protocols and the sensitivity of some performance measures. For example, the level of fatigue induced in some studies (reported peak blood lactate level was  $9.6 \pm 0.9$  mmol/L) is rarely seen in real tennis matches. In the study of Mendez-Villanueva, Fernandez, Bishop, & FernandezGarcia (2010), the peak blood lactate level of elite tennis players recorded in a tournament was below 5 mmol/L. The mean exercise intensities are moderate, which are reported to be 60-70%  $VO_{2max}$  and 60-80%  $HR_{max}$  (Fernandez et al., 2006), or  $2.03 \pm 0.8$  mmol/L of blood lactate concentration and  $161.2 \pm 5.1$  bpm of HR (Fernandez, MendezVillanueva, FernandezGarcia, & Terrados, 2007). However, a maximal blood lactate level of 8.6 mmol/L was also recorded in professional match play condition (Mendez-Villanueva, Fernandez, Bishop, FernandezGarcia, & Terrados, 2007), suggesting that players may experience extreme fatigue in long rallies or when the match is very long.

The aforementioned studies suggested that a realistic fatigue-inducing situation is essential to compare the serve performance between fatigued and non-fatigued conditions. Therefore this study employed a 1.5hour simulated match

to induce fatigue that is similar to a match play. It was hypothesized that serve performance would decrease after the simulated match, i.e. when the players are fatigued.

## Methods

### Participants

Eight members (age =  $21.63 \pm 1.18$  years; height =  $176.25 \pm 9.00$  cm; weight =  $67.19 \pm 10.93$  kg; BMI =  $21.47 \pm 1.49$  kg/m<sup>2</sup>; experience =  $2.06 \pm 1.43$  years) of the 2009-2010 university men's tennis team from the Hong Kong Institute of Education participated in this study. The study was conducted according to the Declaration of Helsinki and the protocol was fully approved by the Clinical Research Ethics Committee before the commencement of the assessments. Written informed consent was received from all participants after a brief but detailed explanation about the aims, benefits, and risks involved with this investigation. Participants were told they were free to withdraw from the study at any time without penalty.

### Procedure

A repeated measures design was used to determine the effects of fatigue on tennis serve performance. Participants served in both non-fatigued and fatigued conditions within the same session. The fatigued condition was induced by a simulated match-play of a single tennis match lasting for 1.5 hours. The competition followed the latest (2009-2010) international tennis

rules and regulations at that time. Ten new balls (Slazenger, UK) were provided in each match play and participants played each game in the same tennis court.

Before the start of the session, all participants warmed up for approximately ten minutes. Then subjects were asked to stand at either side of the center baseline and serve each ball as fast and as accurately as possible. A tray of balls was placed several feet behind the center mark on the end of the court where the server stood.

Each participant completed ten serves in nonfatigued and fatigued conditions respectively in a session (twenty serves in total). Both ball velocity and accuracy were measured during all sessions. The velocity (mph) of each serve was multiplied by the accuracy point value to create an overall serve performance score for each serve (Reynolds, 2005). Overall serve performance scores for all ten attempts in each session were accumulated to create one score for statistical analysis.

### Tennis serve performance

A radar gun (Sports Radar, USA) was used to measure the serve velocity (Figure 1). It was placed inside the opposite service court, set back 20.32 cm from the net, 45.72 cm from the midline stripe, and in line with the subject (Reynolds, 2005). A paper tag was used to draw a line along the center of the court and parallel to the sidelines, bisecting the court into right and left halves in order to measure the serve accuracy (Hensley, 1989). The accuracy score was determined by the area on which the ball landed. Balls landing on the diagonally opposite service box (a legal serve) were awarded 2 points. Balls landing elsewhere within the service court were awarded 1 point. For balls landing outside the serve court (a fault), a second attempt was given. 0 point was awarded for a double fault. If the ball hit the net and landed in the service court (a let serve), that attempt was not counted as a fault and another attempt would be given.

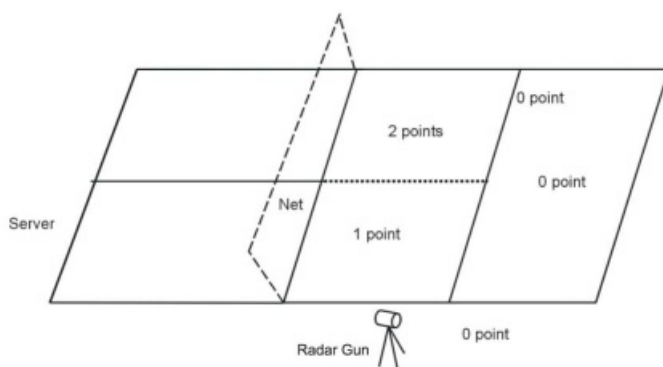


Figure1: Designated target areas for the service test in rested and physical exertion/fatigue

	Fatigue	Non-fatigue	<i>p</i>	Effect size / classification
Accuracy	1.08±0.27	1.24±0.33	0.37	0.53/Medium
Velocity	102.6±13.17	99.1±19.25	0.36	0.21/Small
Serve score	106.7±28.40	121±40.75	0.48	0.40/Small

Table 1. Comparison of tennis serve performance between fatigued and non-fatigued conditions.

Correlation between	fatigue ( <i>R</i> <sup>2</sup> )	non-fatigue ( <i>R</i> <sup>2</sup> )
Accuracy & serve score	*0.90 (0.81)	*0.84 (0.71)
Velocity & serve score	0.31 (0.10)	0.457 (0.21)
Accuracy & velocity	-0.12 (0.01)	-0.08 (0.01)

\**p* < 0.05

Table 2. Pearson product moment correlation coefficient between serve accuracy, serve velocity and serve score.

### Statistical analysis

Data are expressed as mean *SD*. Paired sample *t* test was used to compare the tennis serve performance between fatigued and non-fatigued conditions. Effect size was also calculated to determine the practical difference in tennis serve performance between fatigued and non-fatigued conditions. Effect size values of 00.19, 0.200.49, 0.500.79 and 0.80 and above were considered to represent trivial, small, medium and large differences, respectively (Cohen, 1988). Pearson product moment correlation coefficient was used to assess the relationship between tennis serve parameters. The magnitude of the correlations was determined using the modified scale by Hopkins (2000): trivial: *r* < 0.1; low: 0.10.3; moderate: 0.30.5; high: 0.50.7; very high: 0.70.9; nearly perfect > 0.9; and perfect: 1. Significance level was defined as *p* < 0.05.

### Results

There were medium effect of fatigue on the tennis serve accuracy and small effect on serve velocity and serve score (Table 1). The correlation between accuracy and velocity in fatigued and nonfatigued condition were low and trivial respectively (Table 2). The correlation between accuracy and serve score across conditions was very high but was moderate between velocity and serve score.

### Discussion

This study aimed to compare the tennis serve performance between fatigued and non-fatigued conditions. The results support our hypothesis that serve performance was decreased when the players are fatigued. Specifically, there were medium effect of fatigue on accuracy and small effects on both velocity and serve score. The correlation between accuracy and serve score was very high but was moderate between serve score and velocity for both conditions.

The very high correlation between serve score and accuracy was expected considering the scoring method (02 points for serve accuracy × serve velocity), whereas the low to trivial correlations between serve score and velocity as well as accuracy and velocity were interesting. The former correlation was moderate probably



because high serve velocity alone does not contribute to high serve score, i.e. a result caused by the scoring system again. On the other hand, the findings of Schmidt (1991) provide insight to the latter correlation. Contrary to common perception, the accuracy of fast and forceful movements actually tends to increase by reducing the movement time and at the same time "a faster swing gives more impact to the ball" (Schmidt, 1991, p. 123), provided that the speeding up of movement is not overdone and interrupts the movement pattern. In general, when a movement requires 70% or above of one's capability, the following results: 1) increasing speed by reducing movement time can decrease spatial and timing error; and 2) an inverted U relationship exists between spatial accuracy and force requirements, with least accuracy at moderate levels of force (Schmidt, 1991, p. 121). Therefore, serve accuracy and velocity are not linearly correlated. This may explain the weak correlation found in the present study. However, the present test design provides insufficient evidence to make further inference. Modified design is required. For instance, participants should all be advanced tennis players to reduce variability caused by varied serve skills. Also serve accuracy should be measured under designated ranges of serve velocity that correspond to participants' percentage of effort. The relationship between serve accuracy and velocity can then be studied in greater detail.

Prolonged exercise causes fatigue, which in turn attenuates performance. One proposed mechanism of this phenomenon is peripheral fatigue. Depletion of muscle glycogen and progressive fluid loss are two causes of muscle fatigue (Meeusen, Watson, Hasegawa, Roelands, & Piacentini, 2006). The former limits the rate of adenosine diphosphate (ADP) rephosphorylation (and thus energy production), whereas the latter results in increased cardiovascular, metabolic and thermoregulatory strain and thus accelerates the development of hyperthermia (Meeusen et al., 2006). Also, the rise of inorganic phosphate accumulation may contribute to muscle fatigue (Westerblad, Allen, & Lannergren, 2002). These in turn, lead to disturbed neuromuscular transmission, sarcolemma excitability and excitation-contraction coupling (Allen & Westerblad, 2001; Meeusen et al., 2006).

Central fatigue is another proposed mechanism that may have decreased performance level (Hornery et al., 2007b; Nybo & Secher, 2004). Girard, Lattier, Maffiuletti, Micalef and Millet (2008) suggested that central activation failure and alterations in excitation-contraction coupling were the main mechanisms that caused a progressive torque reductions in the maximal voluntary knee extensor after 3 hours of tennis playing. But it is not sure whether the changes in neuromuscular activities were due to reduced drive from the central nervous system to the motoneurons and/or in response to afferent inputs from metabolic changes in the muscle (Girard

et al., 2008; Nybo, 2003). In particular, carbohydrate may play an important role in maintaining an adequate drive to the muscles.

Regardless of the mechanism, if fatigue (of any sorts induced by tennis match play) does have larger negative impact on the accuracy rather than the velocity of the serve, then coaches should advise participants not to aim at the edge of the opponent's sideline when they are tired because very likely lowered accuracy would lead to more faults. On the other hand, it would be safer to focus on maintaining the serve velocity. Using a simulated match to induce fatigue, the present test may more appropriately reflect serve performance in match. As well, this test is easy to administer, score and analyze and therefore can be used often. Although the effect of fatigue on tennis performance and its mechanisms are not fully understood, for the time being tennis coaches could use this test to assess participants' serve skill as well as to attempt to predict their match performance. In addition, participants should be encouraged to aim at the twopoint area, which was the only area for a legal serve. Assessment of serve performance should also be based mainly on successful serves to this area.

The small sample size and the varying skill levels of participants might have increased the variability, and thus reduced the statistical significance of the results. The participants in the study of Ferrauti et al. (2001) were nationally ranked elite participants and it is reasonable to infer that the enhanced performance recorded in fatigued condition in their study was a





result of the participants' superior technique and mentality. Further study may focus on the correlations between match performances and serve score in fatigued and non-fatigued conditions. For example, some studies found that blood lactate level is higher during service game than receiving game (Brown, 2001), and that blood lactate level may rise to very high level when the rally is long (Fernandez et al., 2006). Under this circumstance, the ability to maintain serve quality may be very important. It would also be useful to monitor the level fatigue induced in the serve test using parameters such as blood lactate level, oxygen uptake, heart rate and RPE because tennis is an intermittent sport and the level of fatigue varies in the course of a match play (MendezVillanueva et al., 2007). In addition, the level of fatigue induced in a match play is subject to factors such as playing styles, weather,

supplementation and nutritional status (Bergeron et al., 1995; Fernandez et al., 2006; Hornery et al., 2007a, 2007b; O'Donoghue & Ingram, 2001; Vergauwen, Brouns et al., 1998; Welsh, Davis, Burke, & Williams, 2002; Wu, Shih, Yang, Huang, & Chang, 2010). Therefore, modified and more detailed tests design, such as assessing serve performance before and after a simulated match with the level of fatigue quantified and long rallies of highintensity included appropriately in hot weather, that suits specific objectives are essential to further studies.

## Conclusion

In university male tennis team members, fatigue induced by a 1.5 hour simulated match-play seems to have

larger negative effect on serve accuracy than on serve velocity. The serve score was highly and moderately correlated respectively to serve accuracy and velocity. There were low to trivial correlations between serve accuracy and velocity across fatigued and nonfatigued conditions possibly due to the inverted-U relationships between them. Central and peripheral fatigues are possible causes of decrement in performance after prolonged tennis play. Practically, coaches should advise players not to aim at the edge of the opponent's sideline when they are tired because very likely lowered accuracy would lead to more faults. On the other hand, it would be safer to focus on maintaining the serve velocity. The findings of this study need be viewed with caution because of the small sample size and the varying skill levels of participants. **RMA**

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# 保險業務人員工作壓力、 休閒參與與休閒效益關係 之研究



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## 緒論

### 研究動機與目的

2008年台灣金融保險業的實質成長為7.8%，佔服務業GDP比率14.4%（經濟建設委員會，2008），可見金融保險業的重要性與日俱增。2007年保險業務員總登數人數超過30萬人，相對的保險業務員的流動情形也十分頻繁。保險業務人員屬高工作壓力族群，其工作壓力和休閒參與相關性為何？是本研究想要進一步探討的，並希望能建構一個新的模型，來說明工作壓力、休閒參與對休閒效益之影響為何？

### 研究問題

基於上述之研究目的，本研究主要的研究問題分述於下：

- (一) 保險業務人員的工作壓力和休閒參與相關性為何？
- (二) 保險業務人員的休閒參與對休閒效益之影響為何？

## 文獻回顧

### 工作壓力

#### 工作壓力之定義

蔡萬助(1999)指出個體對環境上的壓力來源在生理上或心理上的反應，將其視為依變項研究。吳濟華、陳協勝(2001)則指出個體生理或心理上感受威脅時的緊張狀態，此狀態會使人在情緒上產生不愉悅之感，甚至有痛苦的感覺，當個體面對某些不確定性或侷限些不確定性或侷限在包括環境、組織及自身限制等的情况時，其生理上或心理上所展現出不安及不協調的狀態。

Rothmann, Steyn and Mostert(2005)提出工作壓力是一個複雜的情緒，有三個組成因素，分別是：來自工作環境遭受到的壓力、來自同事知覺評價的壓力與遭受到威脅壓力的情緒反應。Jamal(2005)認為工作壓力會導致破壞個人心理和生理的平衡，使正常運作的工作和工作環境互相影響而產生偏差。

總括以上學者對工作壓力的見解，本研究將工作壓力定義為蔡萬助(1999)與Jamal(2005)的論述：個體面對工作環境的壓力來源會導致破壞個人心理和生理的平衡，使工作和工作環境互相影響而產生偏差。

### 工作壓力的內涵

#### 工作壓力源

吳劍雄(1999)指出工作壓力形成的原因並非由單一因素所造成，不但與個人有關，並且必須跟組織與社會環境一起探討，所以他認為工作壓力的來源包括三個向度：個人方面、組織方面、社會環境方面。湯柏齡、陳永煌與譚立中(2002)則提出職場壓力的來源可分為：

- A. 組織架構；B. 個人工作發展；C. 角色扮演；
- D. 工作任務；E. 工作環境；F. 輪班工作。

林財丁(1993)將業務員的工作壓力來源分成兩大部分來探討：

- A. 個人有關之壓力來源：(a) 上班時間無固定；(B) 被拒絕感；(c) 不確定性。
- B. 與工作有關之壓力來源：(a) 業務工作的本質；(b) 角色衝突；(c) 角色模糊：當特定角色接受者對其所需擔任的職務角色缺乏明確瞭解時，對於其完成角色的方法及角色績效的產生，將會有角色模糊的現象(d) 工作負荷過重與負荷不足；(e) 與人打交道；(f) 缺乏社會性支持；(g) 決策參與和績效考評。

保險業務人員是組織中的第一線工作人員，必須以面對面的方式來進行產品銷售，符合曾光華(1997)的看法他認為人員銷售(personal selling)是一種透過人為溝通，藉以說服他人購買的互動過程；換句話說就是透過人員解說來達成銷售目的之過程。因此依據上列論述的工作壓力來源，本研究依林財丁所指出之壓力源為保險業務人員的壓力來源主要範疇。

#### 工作壓力之構面

Behr and Newman(1978)以員工健康研究的角度，用七個構面(facet)來闡明工作壓力的內涵，各構面為環境的構面、個人的構面、程序的構面、人類結果構面、組織結果構面、在適應反應的構面、在時間的構面。而Jamal於2005年以加拿大及中國員工工作為該研究的對象並以工作壓力、A型人格特質行為、倦怠、健康問題、工作滿意度、組織承諾與營業額動機等變數進行研究，該研究用單一構面來呈現工作壓力的內涵。

因此本研究以林財丁(1993)所建立的壓力量表以及陳志昌(1993)及顏瑞伶(2002)之研究為依據，以五



個構面「角色衝突」、「職業認同」、「缺乏支持」、「工作負荷量」、「被拒絕感」為本工作壓力量表之構面參考。

## 休閒參與

### 休閒參與之定義

Iso-Ahola(1980)及Coleman(1993)的研究分別指出休閒參與能對抗有害的生活壓力、維護身心健康並且降低生活壓力，亦即休閒參與最大的福祉是幫助人們保持身體和精神健康，提高生活品質。Long and Hancy(1986)將休閒運動參與分成三個構面：1、參與頻率(一週參與的次數)。2、參與的持續性(一週參與的時間)。3、強度，是以受試者對每一項活動疲勞程度的主觀感受，並運用持續性與強度的複合運動分數(持續×強度)作為變數。鄭健雄(1997)以哲學理念與本質內涵為基礎作休閒的分類，將休閒參與分為情境取向的休閒型態；體驗取向的休閒型態；成果取向的休閒型態。

### 休閒參與的類型

1. Nash(1953)的休閒參與理論(引述自Godbey, 2006)：零級以下是危害社會的參與，零級是傷害自身的參與，一級為旁觀的參與，二級為情緒的參與，三級為積極的參與，四級為創作的參與。
2. Kelly(1996)的休閒參與模式：固定模式；均衡模式；核心模式。

綜合以上學者的研究，從不同學術領域的觀點探討休閒參與的定義，可知不同研究者對休閒的觀點會有明顯差異。本研究之休閒參與分為1、休閒參與行為，引用Ragheb(1980)的休閒態度量表之休閒參與行為分量表作為測量。2、休閒參與程度(參與頻率與休閒活動種類)也引用Ragheb(1980)以主觀分類法編製休閒活動作為測量的主要方法。

## 休閒效益

### 休閒效益的定義

Driver(1997)強調效益對人或實際環境中的需求能獲得正向的改變，包括了人際關係、體適能、預防社會問題或穩定社會群眾等；就個人而言也是一種特殊的心理滿足經驗，如活動結束後感覺良好、覺得精神充沛、與朋友相處就像與家人在一起一樣親密等。Tinsley and Tinsley(1986)指出個體從事休閒參與其主觀經驗可以滿足的心理需求，增進生、心理健康且有助於維持生活滿意度和刺激個人成長。高俊雄(1995)認為休閒效益是主觀的個人感受，透過參與休閒活動的體驗過程中，能幫助參與者改善個人身心狀態，或者滿足個人需求的現象。

### 休閒效益的內涵

Driver於1997年綜合文獻歸納整理出休閒效益的總類(引自吳宗瓊, 2007)，分為個人效益、社會文化效益、經濟效益、環境效益四大類。高俊雄(1995)認為休閒具有正向的功能與意義，這些內容可整合成休閒參與促進個人效益的三大因素：(1)均衡生活體驗；(2)健全生活內涵；(3)提昇生活品質。Verduin and McEwen認為為成年人在休閒活動中能得到六項助益

(Bammel & Burrus-Bammel, 1996)：(1)生理效益；(2)社交效益；(3)放鬆效益；(4)教育效益；(5)心理效益；(6)美學效益。Bright(2000)認為休閒效益是建構人類生活的全方位觀點，休閒對於人類生活的效益包含心理學的觀點、生物心理分析學的觀點、社會學的觀點、經濟學的觀點、和環境學的觀點等五個層面。

本研究將休閒效益歸納為心理效益、生理效益及社交效益三個構面，以期對此有更多的了解與發現。

## 工作壓力、休閒參與與休閒效益之關係

### 工作壓力和休閒參與之相關研究

參與休閒活動為大多數人追求身心健康、紓解工作壓力和緩和情緒的方法，其結果顯示休閒活動參與和工作壓力無相關者有李靜怡(2002)；休閒活動參與和工作壓力具有部份正相關者有陳葦諭(2003)；休閒活動參與和工作壓力具有負相關者有柯政利(2008)。休閒參與和工作壓力對工作滿意能有效預測。

### 休閒參與和休閒效益之相關研究

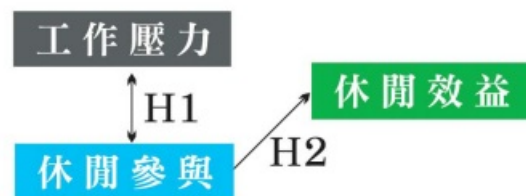
謝倫煌(2006)、林聰哲、李世昌(2008)分別從事實證研究，從上述實證研究發現休閒活動參與和休閒效益呈現正相關；最常從事的休閒活動類型為遊憩類休閒活動；人口統計變項對休閒參與類型都有不同程度的差異存在。

## 研究方法

### 研究架構

本研究在於探討保險業務人員之工作壓力、休閒參與、休閒效益三者間之關係，以及工作壓力變項對保險業務人員休閒參與之影響，本研究之架構圖如圖1。

圖1 工作壓力與休閒參與研究架構圖



### 變數之操作性定義與衡量

本研究以保險業務人員為實證研究對象，主要變項包含工作壓力、休閒參與、休閒效益，以下針對各項變項之操作性定義說明如下：

#### 工作壓力

本研究參考蔡萬助(1999)與Jamal(2005)之論述，工作壓力之定義為：個體面對工作環境的壓力來源會導致破壞個人心理和生理的平衡，使工作和工作環境互相影響而產生偏差。本研究以林財丁(1993)所建立的壓力量表以及陳志昌(1993)及顏瑞伶(2002)之工作壓力相關分析為依據，經本研究修正。陳志昌(1993)、顏瑞伶(2002)之「工作壓力量表」作為問卷調查的依據。包含

「角色衝突」、「職業認同」、「缺乏支持」、「工作負荷量」、「被拒絕感」五個構面 15 個題項來衡量保險業務人員之工作壓力。

### 休閒參與

本研究參考 Iso-Ahola(1980)及 Coleman(1993)的論述，將休閒效益定義為：能對抗有害的生活壓力、維護身心健康並且降低生活壓力，亦即休閒參與最大的福祉是幫助人們保持身體和精神健康，提高生活品質。本研究參考 Ragheb(1980)、鄭順聰(2001)「休閒參與量表」編製而成。包含「文化活動型」、「社交活動型」、「戶外活動型」、「個人嗜好型」、「運動型」，共有五個構面 15 個題項。

### 休閒效益

本研究參考 Mannel and Stynes(1991)之論述，將休閒效益定義為：個人或團體在自由時間從事休閒行為的過程中，對從事的休閒活動有所體驗，而且對個人或者社會能產生有益的影響(引述自林欣慧，2002)。本研究以此定義並根據相關文獻及參考洪煌佳(2002)、林欣慧(2002)、林宜蔓(2004)之「休閒效益量表」內容中之生理效益、心理效益及社交效益三個構面，並針對此三部份修訂題目共有 12 個題項。

工作壓力與休閒效益每題均採用李克特五點尺度，由「非常同意」到「非常不同意」，休閒參與每題亦採用李克特五點尺度，由「經常參加」到「不曾參加」分

別以 5 到 1 標示評量值，得分則為工作壓力、休閒參與及休閒效益之保險業務人員實際接收效果之量化數值。

### 研究假說

根據整合行銷傳播相關操作性定義與研究架構，本研究之研究假說分別說明如下：

#### 保險業務人員工作壓力對休閒參與之影響

由文獻回顧分析得知，整合多樣的行銷技術，可以做為說服或提醒目標消費者的溝通行為，參考 Iso-Ahola(1980)之論述，建立本研究假設一如下：

H1: 保險業務人員工作壓力和休閒參與有正向相關。

#### 保險業務人員休閒參與對休閒效益之影響

參考 Coleman(1993)之論述，參與休閒活動可以增進健康情形，也可減輕生活壓力和疾病的發生。建立本研究假設二如下：

H2: 保險業務人員休閒參與對休閒效益有正向影響。

### 研究範圍與取樣

本研究以中部地區保險業務人員為母體並以問卷調查作為資料蒐集的工具，為確認問卷有良好之信度與效度，先行發放 50 份預試問卷，之後再發放正式問卷 270 份。預試問卷經分析確認問卷之信度與效度良好後，再於實地進行便利抽樣。本研究正式問卷總共發出 320 份，實際回收有效問卷共 287 份，回收率為 89.69%。因為結構方程模式樣本數必須夠大，否則模式適配度的估算將會失真，而 Bagozzi and Yi (1988) 提到至少要 150 份；邱皓政(2003)也指出，若要追求穩定的分析結果，樣本數目低於 200 份是不被鼓勵的，本研究樣本數為 287 份，故符合統計分析所需之樣本數。

### 資料分析方法

本研究應用 SPSS 12.0 for Windows 以及 AMOS 7.0 等統計軟體作為資料分析的工具，分析的方法與步驟如下：

#### 敘述性統計分析

本研究應用敘述性統計，分別對填答問卷、人口統計變項行次數分配、平均數以了解資料樣本的特性。

#### 驗證型因素分析

應用結構方程模式軟體 AMOS，針對「整合行銷傳播技術」進行驗證型因素分析，以確認建構效度是否良好。

#### 結構方程模式分析

本研究應用結構方程模式 (structural equation model, SEM) 來推估各主要變項間、每一概念變項與其所包含的測量變項間的影響程度與關係，以及測量變項殘差間的共變異結構。SEM 是一種以迴歸為基礎的多變量統計技術，SEM 可用以改善路徑分析 (path analysis) 的缺點，並同時處理各潛在變項與可觀察變項間的影響關係，來驗證經由理論所架構出的因果關係，同時，也能夠指出在這些影響關係中未被觀察到的觀念，以及解釋在估計過程中的衡量誤差。





## 問卷信、效度分析

針對本研究中問卷內容一致性分析，以信度係數 Cronbach's  $\alpha$  數值為測量信度的方法。DeVellis(1991)對於Cronbach's  $\alpha$  值提出以下觀點：當 $\alpha$ 係數介於0.65至0.70間尚可； $\alpha$ 係數介於0.70至0.80之間則具有高信度， $\alpha$ 係數大於0.80時，則信度最佳。

### 預式問卷之信度分析

各研究構面信度分析Cronbach's  $\alpha$  值除工作壓力為0.714，其餘均研究構面信度大於0.8，故本研究預式問卷具有良好信度，如表1所示。

表1 預式問卷各研究構面之信度分析

研究變項量表	量表題目數	Cronbac's $\alpha$	評估結果
工作壓力量表	共 15 題	0.714	高信度
休閒參與量表	共 15 題	0.824	高信度
休閒效益量表	共 12 題	0.926	高信度

### 預式問卷之效度分析

本研究之問卷設計主要參考林財丁(1993)、陳志昌(1993)、顏瑞伶(2002)；Ragheb(1980)、鄭順瓏(2001)、洪煌佳(2002)、林欣慧(2002)、林宜蔓(2004)等學者之論述，改編而成，故內容效度良好。

### 正式問卷之信度分析

本研究正式問卷發放320份，實際回收有效問卷共287份，針對問卷之「工作壓力」、「休閒參與」、「休閒效益」等三個研究變項進行信度分析，用以檢測量表的一致性與穩定性，本研究正式問卷經信度分析結果，工作壓力變項的各構面結構信度分別為0.635、0.813、0.752；休閒參與變項的各構面結構信度分別為0.879、0.873、0.811、0.774、0.582；休閒效益變項的各構面結構信度分別為0.890、0.909、0.893，根據Fornell and Larcker(1981)建議的三個關鍵指標來衡量：1.所有的因素負荷量要明顯的大於0.5；2.結構信度要大於0.6；3.平均變異抽取量(Average Variance Extracted, AVE)，所以本研究正式問卷具有良好信度。

### 正式問卷之效度分析

根據Fornell and Larcker(1981)建議的三個關鍵指標來衡量：(1)所有的因素負荷量要明顯的大於0.5；(2)結構信度要大於0.6；(3)平均變異抽取量(Average Variance Extracted, AVE)：計算潛在變項之各測量變項對該潛在變項的平均變異解釋力大於0.5；而AVE愈高，則表示潛在變項有愈高的收斂效度與區別效度，其計算方式如以下公式所示。

$$\text{結構信度} = \frac{\sum (\text{標準化因素負荷量})^2}{\sum (\text{標準化因素負荷量}^2) + \sum \epsilon_j}$$

$$\epsilon_j = 1 - \text{指標信度} = 1 - (\text{指標之標準化負荷係數})^2$$

$$\text{平均變異抽取量} = \frac{\sum (\text{標準化因素負荷量}^2)}{\sum (\text{標準化因素負荷量}^2) + \sum \epsilon_j}$$

## 工作壓力部分

由AMOS進行驗證因素分析，用以確認本文之建構效度是否良好，工作壓力量表的「被拒絕感aa5」構面其平均變異抽取量(AVE)為.372，小於Fornell and Larcker(1981)的建議值.5以上；結構信度為.480小於Fornell and Larcker(1981)的建議值.6以上，顯示構面的問項無法收斂；「職業認同aa2」構面之a5題項標準化係數(1.019)大於1，呈現違逆估計現象；依據黃芳銘(2004)指出一般常發生的違逆估計有以下三種：1.有負的誤差變異數存在，或是在任何建構中存在著無意義的變異誤。2.標準化係數超過或太接近1。3.有太大的標準誤。當標準化係數超過1或過於接近1，則必須考慮刪除其中一個建構。因此先刪除「職業認同aa2」及「被拒絕感aa5」兩構面。再將因素負荷量小於.5的a12和a13刪除。故本研究之變數工作壓力有「角色衝突aa1」、「缺乏支持aa2」、「工作負荷量aa4」等三個構面，共設計3個潛在變項(aa1 - aa5，不含aa2、aa5)及8個觀察變項(a1 - a13，不含a12和a13)。各測量模式最佳適配度模式之因素負荷量除了a2小於.5以外其餘皆大於.5以上，而且p值達.05顯著水準，組合信度(CR)介於.635到.814之間，大於Fornell and Larcker(1981)的建議值.6以上，而平均變異抽取量(AVE)介於.403到.616之間，介於Fornell and Larcker的建議值.5上下，顯示工作壓力量表具有良好的收斂效度與信度。

## 休閒參與部份

依據Hair et al.(1998)所提出的「評估衡量變數對該潛在變項之因素負荷量要大於.5以上」以及Sethi and King(1994)所提出的「觀察修正指標(變數間誤差相關)來改善衡量模型的適合度」；當適合度指標未達可接受範圍時，(1)刪除因素負荷量小於.5的題項；(2)亦可刪除誤差的相關修正指標(MI)較高、因素負荷量低的題項。將因素負荷量小於.5的b3、b7、b11和b14)刪除。故本研究之變數休閒參與有「文化活動型bb1」、「社交活動型bb2」、「戶外活動型bb3」、「嗜好型bb4」及「運動型bb5」等五個構面，共設計5個潛在變項(bb1 - bb5)及11個觀察變項(b1 - b15，不含b3、b7、b11和b14)。各測量模式最佳適配度模式之因素負荷量皆大於.5以上，而且p值達.05顯著水準，組合信度(CR)介於.582到.879之間，介於Fornell and Larcker(1981)的建議值.6上下，而平均變異抽取量(AVE)介於.410到.784之間，介於Fornell and Larcker(1981)的建議值.5上下，顯示休閒參與量表具有良好的收斂效度與信度。

## 休閒效益部份

本量表先將因素負荷量小於.5的c5刪除。故本研究之變數休閒效益(ccc)之「生理效益cc1」、「心理效益cc2」及「社交效益cc3」等三個構面，共設計3個潛在變項(cc1、cc2、cc3)及11個觀察變項(cc1 - cc12，不含c5)。各測量模式最佳適配度模式之因素負荷量皆大於.5以上，而且p值達.05顯著水準，組合信度(CR)介於.890到.909之間，大於Fornell and Larcker(1981)的建議值.6以上，而平均變異抽取量(AVE)介於.670到.768之間，大於Fornell and Larcker(1981)的建議值.5以上，顯示休閒效益量表具有良好的收斂效度與信度。

本研究各變項量表經 AMOS 評估模式配適度後，休閒參與驗證型因素分析適配度指標 (AGFI) 為 .896(略小於 .9，但非常接近理想值 .9)，而殘差均方根 (RMR) 為 .055(略大於 .05，但也非常接近理想值 .05)；休閒效益驗證型因素分析配適度部份，除 AGFI = 0.893(略 < 0.9，但接近理想值 0.9) 外，AMOS 評量模式的整體配適度一般以  $\chi^2$  值顯著與否為標準，p 值大於 .05 則為接受模式，Marsh et al. (1988) 指出  $\chi^2$  值會隨樣本數而波動，若樣本數很大，則幾乎 p 值均小於 .05。本研究因樣本數緣故，故 p 值統計量小於 .05 仍屬合理，結構關係模式及觀察資料皆具有良好適配度。所得分析資料彙整如表 2 所示。

表 2 各量表驗證型因素分析配適度指標彙整表

適配指標 (FitIndices)	P 值	$\chi^2$ 與其自由度的比值 ( $\chi^2/df$ )	適配度指標 (GFI)	調整後的適配度指標 (AGFI)	漸近誤差均方根 (RMSEA)	基準適配度指標 (NFI)	比較適配度指標 (CFI)	殘差均方根 (RMR)
衡量標準值	>.05	< 3	≥ .9	≥ .9	<.1	≥ .9	≥ .9	<.05
工作壓力	.001	2.375	.967	.931	.069	.954	.973	.045
休閒參與	.000	2.454	.947	.896	.071	.945	.966	.055
休閒效益	.000	2.871	.933	.893	.081	.951	.968	.022
結果判斷	顯著	佳	佳	佳	佳	佳	佳	佳

## 分析結果

### 樣本結構描述

根據問卷之人口統計變項，資料分析結果如下：在性別部份，男性佔 42.5%，女性佔 57.5%；在年齡部份，現年 13~31 歲 (Y 世代) 佔 49.8%，現年 32~43 歲 (X 世代) 佔 40.4%，現年大於 44 歲佔 9.8%。相關資料分析如表 3 所示。

### 工作壓力、休閒參與與休閒效益之關係模式之分析

本研究以 AMOS 統計軟體來驗證及檢測所提出工作壓力、休閒參與與休閒效益之關係模式的適配度，經 AMOS 分析所得的配適度指標做為判斷測量模式契合的程度 (Bentler and Bonett, 1980)，工作壓力、休閒參與與休閒效益之關係模式之適配度指標如表 4 所示，休閒參與對休閒效益影響模式潛在變數之估計值 (observed variables) 如圖 3 及表 6 所示，觀察變數 (observed variables) 之估計值如表 5 所示。

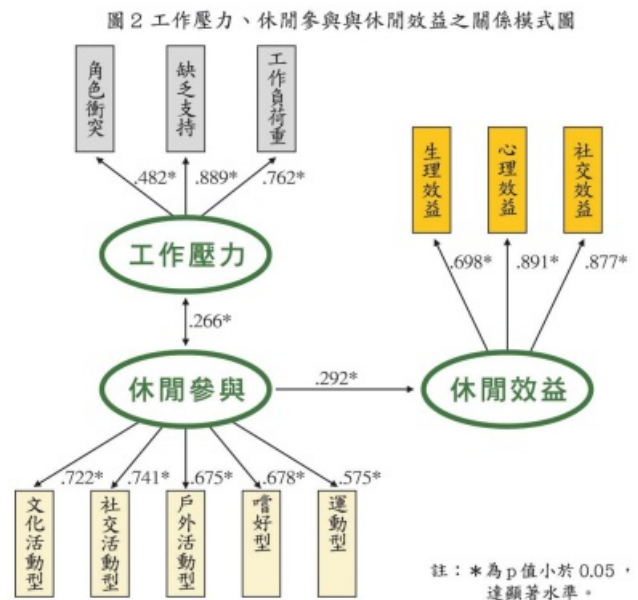


表 3 保險業務人員人口統計變項統計表

人口統計變項	百分比 (%)	人口統計變項	百分比 (%)			
性別	男	42.5	壽險服務年資	1 年以下	13.6	
	女	57.5		1 年~3 年以下	38.3	
婚姻狀況	未婚	44.3		3 年~5 年以下	18.5	
	已婚	53.3		5 年~10 年以下	13.2	
	其他	2.4		10 年~15 年以下	11.1	
教育程度	國中(含)以下	1.0	15 年以上	5.2		
	高中(職)	19.9	薪水來源	固定薪水制	4.5	
	專科	27.9		底薪金混合	47.7	
	大學	48.4		全佣(獎)金	47.7	
	研究所以上	2.8	每天從事壽險時間	5 小時以下	22.6	
年齡	現年 13~31 歲 (Y 世代)	49.8		5~8 小時	43.6	
	現年 32~43 歲 (X 世代)	40.4		9~12 小時	27.5	
		現年大於 44 歲		9.8	13~15 小時	4.5
					16~19 小時	1.7

表4 工作壓力、休閒參與與休閒效益之關係模式配適度指標彙整表

適配指標 (FitIndices)	P 值	$\chi^2$ 與其自由度的比值 ( $\chi^2/df$ )	適配度指標 (GFI)	調整後的適配度指標 (AGFI)	漸近誤差均方根 (RMSEA)	基準適配度指標 (NFI)	比較適配度指標 (CFI)	殘差均方根 (RMR)
參考標準值	>.05	< 3	$\geq .9$	$\geq .9$	<.1	$\geq .9$	$\geq .9$	<.05
整體模式	.000	2.239	.946	.915	.066	.923	.943	.052
結果判斷	顯著	佳	佳	佳	佳	佳	佳	佳

經以 AMOS 軟體分析結果，表 4 之  $\chi^2$  與自由度之比值為 2.239，呈現良好之配適度。p 值為 0.00，AMOS 評量模式的整體適配度，一般以  $\chi^2$  值顯著與否為標準，p 值大於 0.05 為接受模式，但是 Marsh et al. (1988) 指出， $\chi^2$  值會隨樣本數而波動，若樣本數很大，幾乎所有模式都可能被拒絕（亦即 p 值小於 0.05），本研究因樣本數緣故，故 p 值小於 0.05 仍屬合理。除  $\chi^2$  值檢定外，其他評量模式的配適度指標，RMSEA 為 .066，Steiger (1989) 認為，RMSEA 等於或小於 0.05，表示模式是「良好適配」；.05 至 .08，表示模式是「不錯適配」；.08 至 0.10，表示模式是「中等適配」；大於 .10 表示模式是「不良適配」，由 RMSEA 顯示模式是中等適配；RMR 是配適殘差變異數 / 共變數平均值之平方根，表示殘差大小，RMR 值愈小表示模式的適配度愈佳，模式 RMR 值為 0.052，非常接近於 .05 適配度仍屬良好。NFI 為 0.923，CFI 達 0.943 均優於文獻建議值 0.90 (Bentler and Bonett, 1980)，相當接近參數完全飽和設定模式 (saturated model)，顯示本模式之設定良好。

表5 整體模式觀察變數估計值彙整表

研究構面	觀察變數	估計參數	p-value
工作壓力	角色衝突	.482	0.00
	缺乏支持	.889	0.00
	工作負荷量	.762	0.00
	文化活動型	.722	0.00
	社交活動型	.741	0.00
休閒參與	戶外活動型	.695	0.00
	嗜好型	.678	0.00
	運動型	.575	0.00
	生理效益	.698	0.00
休閒效益	心理效益	.891	0.00
	社交效益	.877	0.00

註：顯著水準為 0.05

## 研究假設檢定

運用 AMOS 及 SPSS 統計軟體，對本研究各項研究假設進行檢定，結果分述於下。

### 假設 1：保險業務人員工作壓力和休閒參與有正向相關

由圖 2 及表 6 所示可知，工作壓力及休閒參與之估計參數為 0.266，檢定結果 p 值達顯著水準 ( $p < .05$ )，即本研究假設 1 獲得支持。此結果表示保險業務人員工作壓力和休閒參與有正向相關。

### 假設 2：保險業務人員休閒參與對休閒效益有正向影響

由圖 2 及表 6 得知，休閒參與對休閒效益檢定結果顯示估計參數為 0.292，p 值達顯著水準 ( $p < .05$ )，此結果表示保險業務人員休閒參與對休閒效益有正向影響。

### 工作壓力、休閒參與與休閒效益之影響效果

本研究係以研究工作壓力、休閒參與與休閒效益關係之影響情形，因此本節經由圖 4-5 及表 4-15 工作壓力、休閒參與與休閒效益關係之測量模式與結構模式

表6 整體模式潛在變數估計值彙整表

潛在變數路徑	估計參數	p-value
工作壓力 $\leftarrow$ 休閒參與	0.266	0.00
休閒參與 $\leftarrow$ 休閒參與	0.292	0.00

註：顯著水準為 0.05





分析表(結構方程模式)之樣本估計所得之數據可知,工作壓力和休閒參與有正向相關(0.266,  $p < .05$ );休閒參與對休閒效益有正向影響(0.292,  $p < .05$ );工作壓力的三個衡量構面角色衝突(0.482)、缺乏支持(0.889)及工作負荷量(0.762),可充分反映保險業務人員的工作壓力,其中以缺乏支持(0.889)反映效果為最佳;休閒參與的五個衡量構面文化活動型(0.722)、社交活動型(0.741)、戶外活動型(0.675)、嗜好型(0.678)及運動型(0.575)可充分反映保險業務人員的休閒參與情形,其中以文化活動型(0.741)反映效果為最佳;休閒效益的三個衡量構面生理效益(0.698)、心理效益(0.891)及社交效益(0.877)可充分反映保險業務人員的休閒效益,其中以心理效益(0.891)反映效果為最佳。

## 結論與建議

### 結論

本研究綜合上述文獻探討與資料分析,結論如下:

#### 保險業務人員工作壓力和休閒參與有正向相關

利用 AMOS 軟體作實證的推估與驗證及圖 4-5 中發現,工作壓力和休閒參與呈顯著相關。Kelly(1996)對於休閒參與曾指出一個人參與休閒活動內容是多樣性和豐富性,並以均衡生活體驗、健全生活內涵的原則選擇適當的休閒活動。因此保險業務人員透過休閒活動的參與滿足生理及心理上的需求,並進而使沉重的工作壓力獲得紓解,實有其必要性。而保險業務人員工作壓力來源,在工作壓力的構面分析上也指出,保險業務人員對缺乏支持和工作負荷量的權重比角色衝突更為顯著。所以在模式中得到保險業務人員之工作壓力對休閒的推估值 .266,  $p$  值小於 .05,代表保險業務人員之工作壓力與休閒活動參與有顯著的正向相關。而此結果與陳葦論(2003)的研究結果相符。

#### 保險業務人員休閒參與對休閒效益有正向影響

從 AMOS 軟體作實證的推估與驗證及圖 4-5 中發現,保險業務人員之休閒參與會正向影響休閒效益。高俊雄(1995)在研究中指出休閒具有正向的功能與意義,

其一能均衡生活體驗(舒解生活壓力、豐富生活體驗、調劑精神情緒)、其二健全生活內涵(增進家庭親子關係、促進社會交友關係)、其三提昇生活品質(欣賞創造真善美、肯定自我能力、實踐自我理想)。本研究之休閒參與已顯著正向影響休閒效益,在休閒參與的構面分析上也指出,保險業務人員對社交活動型的比文化活動型、嗜好型、戶外活動型和運動型更為顯著。所以在模式中得到保險業務人員之休閒參與對其休閒效的推估值 .292,  $p$  值小於 .05,代表保險業務人員之休閒參與能正向顯著影響其休閒效益。此結果與謝倫煌(2006)的研究結果相符。

### 管理意涵

#### 保險業務人員之休閒參與對工作壓力的調適

休閒參與在研究中的結果,和工作壓力會有正向的相關,在研究中的結果顯示,以社交活動型參與頻率為最高,洪煌佳(2001)歸納出參與休閒活動後能增進家人或朋友的感情、拓展社交圈(結交新朋友)、了解週遭事物、促進和諧關係、得到與同伴彼此間的信賴與支持;所以建議企業慎選休閒活動類型,並鼓勵員工積極參與休閒活動,藉由推動休閒活動的參與以舒緩員工之工作壓力,進而提高其工作效率。此外,企業可推行公益服務性質的休閒活動,以營造良好企業形象,而保險業務人員能透過此活動拓展人脈,拓展社交圈,更達到服務的最佳品質。

#### 保險業務人員之休閒參與對休閒效益的提升

雖然休閒參與頻率及休閒效益會因人口統計變數的不同而呈現差異,但在本研究中,保險業務人員對於心理效益的反映效果比社交效益和生理效益更為顯著,再加上保險業務人員對於休閒參與均給予正面的評價,這也讓企業在推行休閒活動議題的態度上更加積極、審慎。

### 研究限制與建議

本文將研究之不足及所得結果之發現,提出若干未來可以進一步研究探討之議題,以提供後續研究者參考。此外,本文受限於某些因素的影響,無法盡善盡美,因此將本研究限制列述於後。





## 後續研究建議

1. 本研究受限於時間、經費與能力等因素，故僅以中部地區的保險業務人員為主要研究對象。因此建議後續研究者可擴大研究的範圍，以全國的保險業務人員為研究對象，其研究結果將更具代表性。
2. 休閒意識抬頭及休閒參與熱絡，近來在台灣受到強烈的重視，其中有許多因素可以納入探討的研究範圍，但本研究依據相關文獻而來，在建立研究架構時，為了簡化分析及避免架構過於繁雜，因此，將要研究因素納入並將研究範圍外的因素構面予以捨棄，後續之研究者可以考慮納入不同的變數以做更進一步的探討。
3. 本研究在定義休閒效益時採用生理效益、心理效益及社交效益的定義，而保險業務人員是重視人際關係(人脈)的企業族群，後續研究者可針對社交效益此問題深入探討，做進一步的探究。

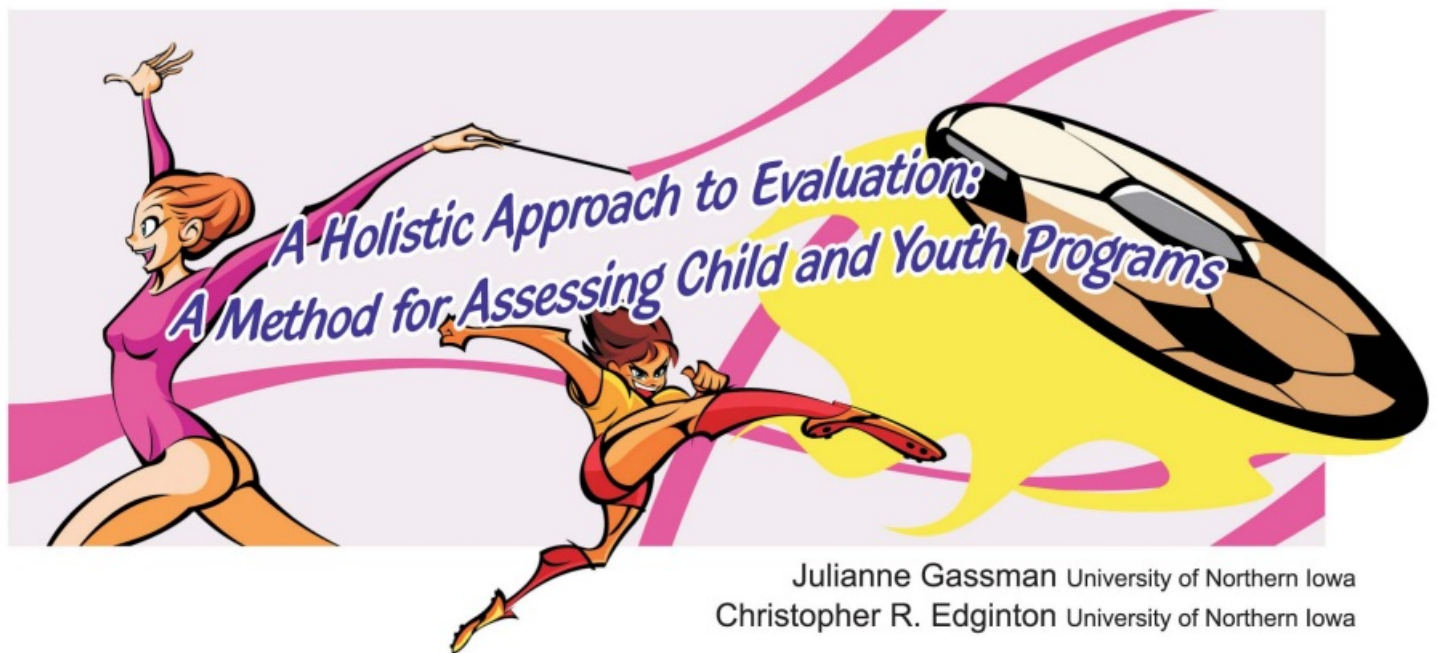
## 研究限制

本研究限於人力及其他外在因素影響，使得研究結果有下列幾項限制：

1. 在問卷的發放對象上，本研究採用便利抽樣的方式，人口統計變項取樣比例未能平均分配，使得研究結果可能產生少許誤差。
2. 在研究中以保險業務人員為研究對象及標的，故在受訪者填答問卷時，可能會因為業務繁忙、個人認知或公司形象(聲譽)等其他因素而產生未預定的影響，而轉移了研究本身所著重的焦點要素之影響力。
3. 本研究採問卷方式讓受訪者填答，問卷設計無法完全、適切地表達出每個人的感受程度，受訪者在填答時可能受到環境、情緒、態度、認知之主觀或外在影響因素，對於問卷题目的填答可能會有所保留。故建議未來進一步之研究可採質量並行，以增加分析的廣度和深度，深入了解保險業務人員工作壓力之心聲，共同來提升生活與服務品質。 **RMA**

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## Introduction

Research indicates that how children and youth spend their time when not in school is vitally important to their growth, development, and ability to prosper as a productive, healthy person. Child and youth care programs, including before and afterschool programs, summer camps and programs through youth agencies such as the YMCA and Boys and Girls Club, provide a rich source of recreation for children and youth. As interest in how children and youth are spending their time outside of school continues to expand, interest from multiple stakeholder groups is likewise expanding (Durlak & Weissberg, 2007; Little, Wimer, & Weiss, 2008). As more stakeholders take interest in child and youth programs, child care providers and youth workers are increasingly being asked to be more accountable and be able to articulate the outcomes of their programs. Little, Wimer and Weiss (2008) stated, "Fortunately, after school has grown up in an era of outcomes and accountability, and therefore, 10 years of growth in after school funding has been accompanied by 10 years of investments in increasingly sophisticated and nuanced research and evaluation studies and syntheses".

Accountability of child and youth care programs, including recreation programs that encourage physical activity mandates organizational strategies aimed at the creation and implementation of effective evaluation systems. Riddick and Russell (1999) have suggested that "...evaluation is a common human activity" that when done on a subjective basis, can lead to

errors and mistakes. However, when the evaluation process is organized and systematic, decision makers can arrive at "intelligent and rational decisions". As a result, child and youth programs are being increasingly required to develop an organized, systematic evaluation system. Thus, it is important for child and youth care programs to give thoughtful consideration to the ways in which the process of evaluation is organized and implemented.

This article describes an evaluation system that is holistic in nature. Defining and describing the methods and procedures employed, the article outlines the stakeholders served by a holistic approach to evaluation. Evaluation is initially defined followed by a discussion of what is meant by a holistic approach to evaluation. Finally, how to develop a holistic approach to evaluation is outlined followed by an example from *Camp Adventure™ Child and Youth Services*. In conclusion important considerations in developing a holistic approach to evaluation are outlined.

## Defining Evaluation

What then is evaluation? Rossman and Schlatter (2000) have written that "...evaluation is the judging of the worth of programs and services on the basis of systematically collected evidence". It implies that the child care providers and youth workers attempt to make value judgments about the extent to which a program or service has accomplished its stated set of goals and objectives. Often, evaluation assists in a broad set of ends including gaining knowledge regarding the

impact of programs and services as well as the processes employed to produce such ends. Evaluation helps in gaining greater understanding of the value and benefits of a program or service often in relationship to its social or economic costs.

Edginton, Kowalski and Randall (2005) have noted that there are two types of evaluation formative and summative. Formative evaluation refers to the evaluation that takes place during the process of the program or service. It is ongoing and directed toward mid course corrections. Summative evaluation takes place at the end of the program and is aimed at viewing its final impacts or outcomes, as well as ways to improve the process once it has been completed. Most evaluation systems employ both formative and summative strategies. Both of these methods of evaluation often employ strategies aimed at improving programs incrementally by establishing benchmarks and then monitoring progress toward these ends. This often results in the creation of quality assurance that is tied to and linked to an organizations' overall evaluation strategy.

Nonetheless, it is often been stated that it is difficult to measure the success or value of programs for children and youth. Yet we know that such programs make a significant difference in the lives of young people (Durlak and Weissberg, 2007; Zief, Lauer and Maynard, 2006). Most evaluation or assessment schemes do not view efforts in a holistic fashion. They often focus exclusively on the methods, and processes used to produce programs, rather than a broader view that incorporates the



many stakeholders involved and/or impacted by an organization's efforts. We attempt to address how to employ a holistic approach to evaluation.

## A Holistic Approach

What is meant by a holistic approach to evaluation? According to Edginton, Hudson, Dieser and Edginton (2004) evaluation involves the attempt to answer some basic questions about what a program had hoped to do and what they were actually able to accomplish. In evaluating any program, there is an effort made at determining the value, worth, or benefits produced. Many organizations have formal processes in place to evaluate programs, but few organizations pursue evaluation in holistic fashion. The term holism is a Greek work meaning all, whole or total. "Holism is the idea that all the properties of a given system cannot be determined or explained by its component parts alone. Instead, the system as a whole determines in an important way how the parts behave" (Wikipedia, 2010, para 1). We can think of a holistic approach to evaluation as a way of determining the disposition, importance, or value of a program or service in a complete manner. A holistic approach involves evaluation or assessment of several interrelated program elements in a simultaneous fashion involving multiple stakeholder groups.

Many evaluation systems lack the triangulation that is important by combining the viewpoints of various stakeholders of a program. The force of all of these parties can highlight program elements necessary to modify,

change, or improve a program offering. Seeking the views of multiple stakeholders often involves viewing a similar program element from the perspective of the participant, the parent of a participant, the direct service provider, the supervisor, the administrator, and others. Their viewpoint may at times be divergent from one another, yet at other times provide a sense of consistency in their observations.

## Methods of a Holistic Approach to Evaluation

A thorough literature search has revealed that there are dozens of evaluation methods being employed by programs (Stufflebeam, 1999, Twindale, 2009), however very few involve a triangulation of various stakeholders of a program. Stufflebeam (1999) stated, "The study of alternative evaluation approaches is vital for the professionalism of program evaluation and for its scientific advancement and operation". This paper seeks to add a best practice, namely the operation of program evaluation by describing an evaluation method that is holistic in nature for child and youth programs.

Designing a holistic approach to evaluation involves developing a research plan referred to as research design. Research design involves designing the strategies of inquiry and developing the methodology for analysis (Creswell, 2009). When designing a holistic approach to evaluation it is important to consider two things when developing the search plan; the various stakeholder groups or

research participants included in the study and an overlap in the content of the research.

There are three types of research designs, quantitative, qualitative and mixed methods. Quantitative research is a method of testing theory by studying the relationship between variables. Qualitative research is a method of understanding the meaning people or groups attribute to social or human problems. Mixed methods combine both quantitative and qualitative approaches to research. It involves the use of both approaches simultaneously so that the strength of a study is great than either individual method alone (Creswell, 2009; Creswell & Plano Clark, 2007).

Simultaneous to developing a research design, the survey participants or stakeholders need to be identified. When evaluating child and youth programs stakeholders may include but are not limited to executive staff, program staff, children, parents of children, and any partners in the design and implementation of the program such as a school or local youth serving again. The instruments for all stakeholder or survey participants should have the same or similar questions and measurements. For example if the instrument developed for the program staff inquires about rating the "quality of the program" on a Likert Scale from 1 to 5, this same question should be asked of all stakeholders or survey participants. Having an overlap of content allows for comparing the similarities and differences among various stakeholder groups. It is also important to note the timing of when stakeholders are asked to participate in a study. If some stakeholders are surveyed at the beginning of a program and others are surveyed at another time, this should be noted and considered in the analysis and interpretation of the results.

Once the evaluation procedure is designed, the stakeholders are identified and surveyed; the analysis and interpretation of the data can begin. During the analysis and interpretation of the data, similarities and differences in the results can be noted. Similarities in results can be used to validate the quality and outcomes of child and youth programs. Consensus of various stakeholders may also be useful in identifying areas that need improvement. Variations in



stakeholder responses can assist in identifying the program's strengths and weaknesses. Comparisons of stakeholder responses allows for identifying the similarities and differences between those delivering the services and those receiving the services (Galloway and McAllister Shea, 2009). The next section discusses a program, that works in partnership is U. S. military child and youth care programs, and employs a holistic approach to evaluation.

### **Camp Adventure™ Child and Youth Services -A Case Study**

*Camp Adventure™ Child & Youth Services (CACYS)* is a service-learning organization dedicated to providing high-quality, high-impact programs to children and youth throughout the world (Edginton, Edginton & Lau, 2003). The program's primary emphasis is focused on providing developmentally sound services for the application of child and youth development principles for college and university students. The program is viewed as an educationally based service-learning program focusing on the integration of theory and practice. College and university students are selected annually to provide child and youth care programs worldwide, mainly on US military installations.

As a result of CACYS' strong commitment to accountability, the organization has developed what it refers to as a *holistic approach* to evaluate its programs and services. The holistic approach to evaluation engages in both formative and summative evaluation strategies; that is, it seeks information and makes assessments as the program proceeds (formative evaluation) and also at the conclusion of the effort (summative evaluation). For both evaluation strategies to be successful, information must be gathered from a variety of sources including participants, parents, direct service providers, program directors, administrators, and others interested in the value and worth of such programs (Jordan, Edginton and Edginton, 1994, 20-21).

To illustrate the application of the holistic assessment program utilized by CACYS, information gathered from the organization's largest contract partner, the U.S. Army's Child and Youth

Services program was reported. The holistic assessment program employs various assessment tools, however in this portion of the paper, we will review the responses reported from programs implemented during the summer of 2006, reflecting four types of surveys. They are: 1) contract partner mid-term evaluations, 2) parents of participants' evaluations, 3) direct service provider evaluations, and 4) contract partner final evaluations.

### **Research Design**

CACYS has developed an evaluation or assessment design that involves various stakeholder groups and the instrument used to survey these stakeholders overlaps in content. CACYS employed a quantitative, non-experimental research design. The basic instrumentation used to collect data were a series of surveys that questioned three different stakeholders. Each stakeholder was given a survey using a five-point Likert scale, where 5 = Excellent, 4 = Good = 3 = Satisfactor, 2 = Fair, and 1 = Poor. Table 1 identifies the research method, instrument, stakeholder, and focus of the evaluation in this case study.

Table 1: Camp Adventure™ Child and Youth Services' Research Design

Research Method	Instrument	Stakeholder	Content
Non-experimental Design	Mid Program Evaluation Survey-Likert Scale	Contract Partners (32)	<b>Overall Perception</b> Quality of services Staff morale Supervision Cleanliness Choice in activities Balance of small/large group activities
Non-experimental Design	Parent Evaluation Survey-Likert Scale	Parents of Participants (222)	<b>Overall Perception</b> Quality of services Friendliness of staff Supervision Communication
Non-experimental Design	Counselor Evaluation Survey-Likert Scale	Direct Service Providers (688)	<b>Overall Experience</b> Support from the contract partner Support from the CACYS director Support from direct supervisor
Non-experimental Design	End of Program Evaluation Survey-Likert Scale	Contract Partners (25)	<b>Overall rating</b> Communication Marketing Quality of services Program value Supervision

This study engaged nearly 1000 participants, including contract partners of CACYS, staff or college participants who are the direct service providers, and parents of the children and youth participating in the programs. Thirty-two contract partners completed a mid program evaluation and 25 contract partners completed an end-of-program evaluation. Six hundred and eighty eight direct service providers, who are the college and university students of the CAYS program, completed an evaluation, and 222 parents of the children and youth participating in the child care programs completed an evaluation. The survey distributed to the three different stakeholder groups included an overlap of content. This article highlights the "overall perception and/or experience" content of each survey to demonstrate how a holistic approach to evaluation can be implemented.

### **Stakeholder Groups**

Assessment instruments provide the various stakeholder groups an opportunity to evaluate a variety of program elements. In this section the stakeholder groups are described, along with a description of the survey completed by that particular stakeholder group. The stakeholder groups include: 1) contract partners 2) parents of



**Contract Partners.** Since CACYS partners with the US military to implement child and youth programs, the director of the program employed by the military is an important stakeholder in the success of programs implemented by CACYS. The program directors that work for the military are referred to as contract partners. Contract partners are asked to complete a survey containing a series of questions using a 5 point Likert Scale. Contract partners complete both a mid-program evaluation and an end-of-program evaluation.

The mid-program evaluation completed by the contract partner provides a rich source of information that enables CACYS to make mid-course corrections in its offerings and services. This evaluation is aimed at collecting information from our contract partners including: 1) quality of services, 2) staff morale, 3) supervisory practices, 4) the effectiveness of communication patterns, and 5) program implementation practices. The final or end-of-program evaluation is more extensive providing a more in-depth observation of the program and its services. This important assessment tool provides a detailed, overall summative assessment regarding communication, marketing, program quality, program value, supervision and overall rating of the program. The final evaluation instrument is structured to include rating quantitatively various items, as well as providing an opportunity for open-ended qualitative feedback.

**Parent of Participants.** Soliciting information from the parents of children who are participating in the program is an important aspect of CACYS' holistic system. Parents are the

prime decision makers regarding the participation of children in programs, therefore their input is essential. CACYS uses a parent evaluation tool to assess the overall satisfaction of the program. This evaluation tool requests that parents answer five simple questions to determine the overall perception of the program, quality of services, friendliness of staff, supervision from staff, and communication between the staff and themselves.

**Direct-Service Providers.** CACYS seeks to assess the levels of satisfaction that university students serving as staff members have regarding their experience. Not only are contract partners and parents' satisfaction important, the experience of staff members is vital to a successful program. Each direct service provider is asked to rate their experience with the program toward the conclusion of their experience. Multiple questions dealing with their relationships, support, and their level of satisfaction with the program are presented.

This evaluation system assists in the process of gathering information to verify what is often intuitively felt by CACYS staff regarding program quality.

The evaluation system provides for the opportunity for corrective action which insures quality control. A major challenge in organizing and implementing the entire system is to insure that information is effectively analyzed, summarized and utilized to improve the quality of services. In particular, it is extremely important that CAYS staff reviews concerns related to participations, programs, parents, staff and contract partners so that they may maintain and build the quality of programs, anticipate issues and concerns and respond to immediate needs.

### Findings and Discussion

Table 2 illustrates the response rate of the overall perception of the CACYS program by various stakeholder groups. The index score is the average rating of all responses by that stakeholder group based on a five-point scale. The index scores were then translated into a percentage by taking the index score and dividing it by 5. The last column is the overall score totaling all of the stakeholder responses. CACYS considers a 3.0 as an average rating, with any index score above a 3.0 indicating an above average program and any index score below a 3.0 as a below average program.

As noted earlier, contract partners complete two evaluations, one at the mid point of the program and one at the completion of the program. The index score calculated based on the responses of the contract partners on the mid-program evaluation was a 4.56. This translated into an overall percentage of 91.2%. Parents of participants had an index score of 4.74 with a percentage of 94.8%. Direct staff providers had an index score of 4.47 and a percentage of 89.4% and at the end of the program, the contract partner evaluation had an index score of 4.54 and a percentage of 90.8%.

Table 2: Index Scores and Percentages (in Parentheses), Overall Perception

	Contract Partner Mid-program Evaluation	Parents of Participants	Direct Staff Providers	Contract Partner End of Program Evaluation	Overall Score
<b>Overall Perception of Program</b>	4.56 (91.2%)	4.74 (94.8%)	4.47 (89.4%)	4.54 (90.8%)	4.57 (91.5%)



Identifying the similarities and differences in the index scores of the various stakeholder groups allows for improvements to be made and can lend itself to targeted problem solving. Table 2 illustrates very little variation in index scores. Parents of the participants have the best perception of the CACYS program, while direct staff providers have the lowest perception of the program. It is also noted that while contract partners rated the CACYS program in the 90<sup>th</sup> percentile during and at the end of the program, perceptions of the program were slightly higher on the mid-program evaluation.

In this study, the data presented in Table 2 indicates a positive perception of the CACYS program from its various stakeholders. While the focus of this article is on holistic assessment and the index scores are analyzed to review the program as a whole, as the individual surveys are collected they are also reviewed individually so that CACYS headquarters can address any specific concerns. For example, as the contract partner mid program evaluation is received any program that is rated 3.0 or lower receives immediate attention. An administrator makes a phone call from CACYS headquarters to the contract partner inquiring why the program was rated average, fair or poor. This process provides an opportunity for an immediate response to concerns that have been identified and then an action-oriented strategy to resolve problems is implemented. CACYS administrators follow up directly with CACYS's area supervisors to make corrective action and address how to improve the quality of the program. This same process is implemented when a concerning evaluation is received from a parent of a participant as well.

Upon completion of the summer, the final evaluations are analyzed. These assessments include, but are not limited to, the direct service provider's evaluation and the contract partner's final evaluation. While all the programs are complete, is it necessary to review the delivery of the program so to correct any necessary components to continually improve program delivery every year. The final evaluations in this case study indicated, as was predicted by the mid program evaluations, a high level of satisfaction by direct service providers and contract partners. These

results provide a holistic view of CACYS's program delivery and assure the quality performance indicated at mid point of the summer was continued through the completion of the program.

## Important Considerations

Galloway and McAllister Shea (2009) noted that it is important to survey various stakeholder groups inside the program as well as other stakeholder groups outside the program. Both perspectives are vitally important to continually improving the quality of child and youth programs. Developing an evaluation or assessment procedure and deciding on the strategy of inquiry for the method of evaluation should be done giving consideration to the various stakeholder groups to be involved in the process. In addition, an overlap of content in the research instrument

allows the reviewer to compare data between and among various stakeholder groups. This process allows for the determining the value of the program or program elements that contribute to the success, or failure, of the program.

A holistic approach to evaluation provides any organization with the opportunity to analyze program performance from a variety of perspectives. Importantly, the CACYS holistic approach allows for continued quality services and/or highlights areas needing improvement. As we say at CACYS, "...today's children are tomorrow's leaders." Professionals that believe our future is in the hands of children and youth owe these individuals and other stakeholders their best effort in providing high quality services. A holistic approach to evaluation is a complete system that supports such ends resulting in the provision of high quality, high impact programs for children and youth. RMA

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# 分享運動 體育事業可持續發展的路徑

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## 中國體育下一步如何走

中國在北京奧運會獲得金牌數量世界第一的佳績，書寫了體育史空前輝煌的篇章。出乎許多人意料的是：即使這樣，我們也不是體育強國。

中央提出建設體育強國的目標，為中國體育開導可持續發展的理想追求。這也表明，雖然中國已經在發展高水準競技運動上展現了空前強大的實力，但金牌大國並非體育強國；中國體育為奧運爭光計畫傾注了大量心血有時甚至孤注一擲的努力模式，伴隨著“一金遮百醜”的年代將漸行漸遠。金牌戰略與體育強國失去了必然聯繫，下一步怎麼走，需要尋找路徑，在理論上探討體育事業可持續發展的導向。

當前社會的主要矛盾，是人民全面快速增長的公共需求，與公共服務、公共產品的嚴重不足之間的矛盾。而擺在體育工作者面前的現實問題，是社會各領域取得巨大進步的同時，大眾體育需求不能充分滿足的現狀尤其是青少年體質不斷下降的結果尚未改觀，中國的體育制度在提供公共服務與公共產品方面需要花很大力氣。按照體育界內部的認識，現有體制需要“堅持和完善”：對它“堅持”是因為它在批量培養運動精英方面卓有成效，在奧運會獲取的金牌已舉世無雙，這是需要珍視的成熟和優秀部分；而對其“完善”正是由於它在公共服務方面的明顯缺陷而離民生越來越遠，需要構建一個普惠全民的體育制度。

缺少與社會發展相適應的公共服務產品和長效機制，這是中國體育制度的主要“民生短板”。這個弱點不僅表現為社會體育基本公共服務均等化的平臺缺失，而且已有的成熟部分也有尚待改革之處：譬如處於相對壟斷封閉的狀態的學校體育被簡化壓縮為幾節體育課，以致政府一面採用強力措施希望解決學生體質健康問題，還要千方百計地設法使學校體育場館對社會開放；而各級訓練比賽僅僅圍繞極少數有運動天賦的精英，行業內高度集權的層層集訓“局域網”對提高競技成績無比卓越，但也使運動員難以享受公共教育資源，“體教結合”步履維艱。

改革開放以來，雖然中國體育提出了“以青少年為重點的全民健身戰略和以奧運會為最高層次的競技戰略協調發展”的指導方針，但前虛後實、前軟後硬，青少年的體質30年來伴隨著競技金牌的不斷增多而持續下降。2007年中央七號檔針對青少年體質持續下降的現實，頒佈了一系列積極的干預措施。然而，中央的正確決策以紅頭文件的形式層層下發貫徹，實際效果卻並不如人意。究其緣由，很大程度是因為我國體育的理論蒼白和制度障礙所致。由於中國政府過去是一個管制型政府，難免受到封建社會傳統和計劃經濟體制的影響；而體育制度更是飽受階級鬥爭以及無產階級專政觀念的浸潤，形成了政府主導的行業專權，包攬了體育運動發展的所有事務，不同程度存在部門利益化的現象，行使職權忽視公共利益，這是與惠及民生的服務型政府的要求相背離的。

“十二五”期間的中國體育，應該“對外”改革，“對內”開放。即：在國際上改變過去把爭奪金牌視為軍事化行動“以人為敵”的戰鬥形象，調整為表達中華民族“與人為善”和平發展意願的友好面貌；在國內把行業壟斷的部分體育優質資源向社會公眾開放，把忙於系統內訓練比賽的職能轉變為提供惠及全民的公共服務。



當前中國體育事業可持續發展的一個迫切需要，就是從金牌大國走向體育強國，明確體育是“公共的、公用的、公眾的”，強調體育的公益性質，努力構建長效的公共體育服務體系。這需要以觀念更新來促進公共體育服務意識的形成，尋找一個具有體育特色的導向性觀念作為理論依附。為此，本文提出“分享運動”的人文價值觀，作為我國體育事業可持續發展的理論導向和拓展路徑。

### 體育人類學的運動資源普惠論

體育人類學的研究表明：人類在進化為直立行走後，所發生的人體形態結構的變化，為彌補自己的身體隱患而萌生體育行為提供了生物學依據，這是一個人人均有的客觀存在；古人類的身體活動是整個物種集體適應自然的漫長行為，史前時期的人體運動作為公共權利是相對平等的，在無拘束限制中體現公平。進入階級社會，非生產、生活性的身體競技遊戲為少數上層有閑者獨享，大多數人被強制或半強制性從事體力勞動，但身體的隱患並未暴露；在工業革命帶來的突變中，過細的社會分工嚴重破壞了人類的自然生物適應能力，以“文明病”的形式損害人類發展，完整的體育意識才得以成熟。人類具有地球上唯一的兩腳直立行走的物種特徵所帶來的生理隱患不斷暴露而危及健康，使體育成為人類每一個體生存發展的必需。文明社會把群體性身體活動發展為一種獨特而永恆的文化創造，並在經濟發展到一定水準的基礎上實現運動資源的普惠。

可以說，“體”不是文化，“育”才是文化。前者是遺傳的，後者是習得的。不僅動物的跑跳投不是文化，即使它們的身體活動可以增強體質，可以達到強身健體的效果，也不是文化，當然不能稱為體育。體育文化是人類為發展自己身體而創造的文化，其精髓是培育身體的價值體系，應該人人享有、普惠大眾。人類的體育運動有競技，也有互助和仁愛；有健身，還有交流和友誼。體育運動所需的時間空間及場地設施都是人類文明的成果，每一個成員都有權分享。

“分享運動”觀念的提出，是受貫穿於人類身體活動實踐中人文精神、人文思潮的影響，是人文價值觀在體育這個特殊領域裏為實現理想目標的具體顯現。體育人文價值觀首先關注身體運動中每個人的價值，認為體

育運動應該提升人的價值，維護人的尊嚴，美化人的身心，促進人的全面發展。樹立“分享運動”的體育人文價值觀：就是在體育活動中宣導以人為本的理念，實施人文關懷，以每個人的身心健康帶來人類的發展作為體育的根本目標。

眾所周知，人文主義是西方傳統文化的產物，在東方缺少歷史參照物；正如西方文化萌生的體育，在中國也幾乎沒有可以參照比較和交融互動的傳統體系。人文精神的萌芽，以人類自身肢體運動作為文化積澱出發點的人文體育觀的由來與發展，不能不追溯到古希臘。

追本溯源，梳理體育發展的人文脈絡，可遠及古希臘自由民的普遍運動觀。古希臘人對鍛煉和炫耀自身強健的肉體、顯示超群的運動能力表現出相互分享的喜好。“希臘人的個性化達到了極限，他們沒有社會組織的宗教，其結果是他們沒有祭司的神權等級制度，他們的奧林匹克諸神可以被視為對自然現象極具想像力的解釋，是力量、愛情、理智以及放大的希臘人自己的象徵。”古代希臘實施的奴隸制民主政治，承認人的偉大與崇高。主導思想是以人為本，人是主體，是標準，是世間萬物的尺度；而神不過是理想的人，對神的讚頌實質上是對自身的肯定。然而，古希臘人的競技運動實質是與神的分享，但絕不與廣大的奴隸分享，也不與非希臘人分享。

文藝復興以後興起的人文思潮和人文學科是對神學而言的，與中國古代對自然而言的“人文”大不一樣。這場思想解放運動，探討人有別於神的本性，以人性反對神性，以人道反對神道，批判神學，恢復人的本質和尊嚴，實際上也是一種尋找人的地位以便與神分享的行為。直至宗教改革和啟蒙運動的興起，自然科學體系的建立，人類對自己成為主宰的認識才真正飛躍上一個嶄新的臺階。

體育性質的身體運動的真正普及到全社會各階層，是工業革命之後的事。工業革命使人們的體育意識驟然清晰，人文主義思潮影響的體育思想迅速成熟並惠及全社會。儘管被賦予體育權利的城市青少年處於半強制接受狀態，但體育和競技畢竟從為少數上流階層娛樂教化服務的小圈子裏走出來，成為社會大眾分享的權利。工業社會後期對軍國民思潮的揚棄，使更多的人知道自己享有體育運動權利。只是在具備條件的部分發展中國家，人們還沒有完全享有足夠的公共體育資源。





人類即將進入休閒時代，使體育功能發生重大改變；中國努力建設的和諧社會，也勢必實現人類體育資源的普惠運動分享。

## 經典學說與理論依據

19世紀末在軍國主義思潮推動下，體育與科學、政治結伴而行，以德式體操為最佳載體，一時間風靡東亞。中國正是此時引進了西方體育。對西方體育而言，從古希臘競技中表現出的人文精神經歷了漫長而曲折的演變仍然一脈相承，至今浸潤於發達國家形形色色的體育活動中；而對中國體育，雖然新文化運動之後曾有一些海歸學者受美國杜威-威廉姆斯的實用主義-自然體育思想的影響，提出過富有“自由、平等、博愛”精神的體育主張，但在戰亂困擾的動盪社會中曇花一現；中國複雜多變的社會歷史，使體育人文觀念遲至改革開放20年後才正式提出，而且體育理論界因對其陌生曾一度橫加批判，對人文精神的抵觸情緒至今尚待消除。因此，提出“分享運動”的體育人文價值觀，必需持有充分依據。

從人類學的視角來審視體育，無論從自然的、生物的、心理的、社會的哪一個角度看，人類從體質和文化方面都需要身體運動，因而人人都具有體育權利。正如馬克思在講到勞動作為人和自然之間的物質交換過程的時候指出的那樣，“人自身作為一種自然力與自然物質相對立。為了在對自身生活有用的形式上佔有自然物質，人就使他身上的自然力臂和腿、頭和手運動起來。當他通過這種運動作用於他身外的自然界並改變自然時，也就同時改變他自身的自然。”當勞動中的體力成分在資訊社會迅速減少到低於人類正常的物種生存需要時，體育的作用愈加彰顯。

只有少數人能“運動”，是社會的不公。當年馬克思對資產階級的憤怒，也包括無產階級被剝奪的運動權利：“就機器使肌肉力成為多餘的東西來說，機器成了一种使用沒有肌肉力或身體發育不成熟而四肢比較靈活的工人的手段。……不僅奪去了兒童遊戲的時間，而且奪去了家庭本身通常需要的、在家庭範圍內從事的自由勞動的時間。”

在青年時就深受費爾巴哈人本主義影響的馬克思，繼承和發展了人文主義理論體系中包含的人人自由、平等和全面發展以及全人類解放的人道理想，指出未來社會的目標就是使人們的體力和智力獲得充分的自由的發展和運用，成為具有豐富的、全面而深刻的感覺的人。馬克思和恩格斯在偉大的《共產黨宣言》中把理想社會描述為：“代替那存在著階級和階級對立的資產階級舊社會的，將是這樣一個聯合體，在那裏，每個人的自由發展是一切人的自由發展的條件。”馬克思主義弘揚的人文精神，是指引人類發展的明燈。每個人的全面而自由的發展包括身體的發展。這是宣導體育人文精神的基本依據，也是人類健康的審美理想。

人文學科為社會科學提供價值論基礎，正如體育人文價值觀宣導：公平、公正、公開的體育權利，應該在每一個人身上體現；自由、平等、博愛的普世價值，不應該是空中樓閣抽象地懸浮在雲端，而必需在體育領域物化為“分享運動”。

當前我們建設“體育強國”，體育界大都從如何成為“體育強國”個角度去詮釋領導講話，少有從更宏觀

的視野看問題。從民族復興的意義上講，我們不僅是要建設“體育”的強國，而且更需要以體育事業的發展來促進國家的強盛，努力探討“體育”如何才能“強國”的路徑。

踏上這個路徑的指導思想，必定會重歸以馬克思主義的人的自由而全面發展學說為核心價值觀，宣導“運動分享”的新觀念。馬克思人的全面發展明確地指的是“個人的全面發展”。這裏的個人，是指“任何人”，即面向全體社會成員的全面發展而言的，而非部分或個別別人。只有個人普遍得到全面發展，人類才能真正獲得駕馭自然界和人類社會的自由。

馬克思離開我們很久了，但他認為實現人的自由而全面的發展的必要條件是“縮短工作時間”，至今仍然是金玉良言。勞動方式的改變，個人自由時間的增加，使體育的人文價值得到空前的提升，導致其功能“從生產到生活、從群體到個體、從工具到玩具”的根本性轉折。

用經典學說作為理論依據加以分析，學習實踐以人為本的科學發展觀，中國體育很有必要淡化以政治為本、以金牌為本的傳統觀念，修訂以奧運爭光為體育強國目標的發展戰略，樹立公共服務的指導思想，宣導“體育關注民生、大眾分享運動”的嶄新觀念。



## 從“分享工作”的休閒社會機制到“分享運動”的體育觀

《辭海》中沒有“分享”條目。其他詞典（如李行健.現代漢語規範詞典的解釋[M]外語教學與研究出版社.2004：386.）中偶見的“分享”為動詞，意為和他人共同享受，如分享快樂。

以“分享運動”為檢索詞，通過上網在中英文資料庫查詢，目前尚未發現國內外有“分享運動”或“運動分享”類似提法的相關文獻。

但是，發達國家已經實施的“工作分享制”可以帶來啟迪：即通過縮短勞動時間、共同分享工作，保證大家都有工作可幹而不至於失業，從而達到穩定就業的目的。所謂工作分享(work sharing)，德雷茲(Dreze, 1986)將其定義為：“為了減少大範圍的非自願失業而在員工之間進行的工作重新分配”；韓弗理斯(Humphreys, 1986)的定義為：“為了維持或提高就

業水準，通過重新調整付薪工作時間安排的方法”；歐洲工會組織(1988)解釋為：“工作分享就是為了這些所有希望工作的人提高就業機會，根據對目前工作需求短缺的觀測與分析，採取在特定的經濟系統中重新分配工作總量的方法提高就業水準”。通過重組和重構工作崗位及付薪的工作時間，實工作崗位分享制、時間購買計畫、縮短法定工作時間、提前與過度性退休、彈性工作制、延長休假時間等。其產生的理論基礎有工作終結理論、社會發展理論、工作與家庭生活平衡理論、員工職業再迴圈理論等。

英文中出現的“分享工作”(work sharing)的辭彙，是休閒時代人文觀念形成的新社會機制的標示。為此，人類社會普遍出現休閒時間迅速增加的客觀條件，必然為體育活動融入越來越多人的生活方式奠定基礎。筆者認為，“分享”的概念和形式正在影響到體育領域，從以人為本的科學發展觀和“以每個人的身心健康為本”的體育人文價值觀出發，很有必要提出促進大眾積極參與的響亮口號“分享運動”；受“分享工作”英文work sharing 的啟示，可以稱為sports sharing。

我們常思考：體育為何而存在？人文體育觀承認個體的獨立尊嚴，培養負責任的社會成員。體育由自我關懷到聯繫他人，把友愛和同情感從家庭、學校、社團擴大到社會、國家、世界，才能理解天地萬物協調一體的人文精神。“分享運動”從人文的視角來看待身體的活動，形成對體育人文價值的一系列認識觀念，尋找體育的對人的本質意義，蘊含著體育以人的身心健康為本的終極理想。“分享運動”作為體育可持續發展的推手，其人文理想對推動體育的發展具有重要的引導作用，核心就是要主動表現體育對人類生存意義及價值的



終極關切，彪炳人類用體育運動獲得身心健康、全面發展的共同價值取向。

體育的科學發展，要求政府將維護最廣泛人民的根本利益作為一切工作的出發點和落腳點，做到發展為了人民、發展依靠人民、發展成果由人民共用。“分享運動”的觀念，使中國體育進入以人為本的軌道運行以人的身心健康發展為本，以提高所有人的生活品質為本，以人人都應該享有的身體運動權利為本。中國體育的未來運行，將遵從這一宗旨。

以“分享運動”的人文價值觀作為中國體育可持續發展的核心觀念，絕不是一句空泛的口號，也不是短期的宣傳，而是廣泛吸收中西方人文學科理論精華，建立在馬克思對於人的全面發展理論基礎上，符合科學發展觀，能夠對體育事業可持續發展產生作用的精神力量。在隔靴搔癢體育理論園地，“分享運動”作為新鮮的體育理論導向，將指引未來的制度變革。

“健康第一”的指導思想已提出10餘年但沒有在青少年體育發展中獲得預想的效果，其重要原因之一就是作為口號懸掛在半空中，過於抽象以致難以操作。因此，“健康第一”後面需要續接一個面向實際工作層面的理念，才能夠有效鏈結現實中每個人實施行為的領域這就是“分享運動”。

“健康第一，分享運動”的提法，是科學發展觀指導下的體育人文觀念。如果再細化，可拓展為“以人為本，健康第一，分享運動，擁抱未來。”這樣，“健康第一”可上聯科學發展觀，納入正確的理論軌道；“分享運動”下接公共體育服務均等化的實踐，實現增進民族體質健康的目標。

對“運動分享”的理解，應該定義為：以提供公共產品為杠桿，通過促進廣泛的運動參與以實現公共服務均等化，使更多的人通過獲得運動體驗來提高身體運動能力，從而實現增進大眾體質與健康水準的體育發展目標。

其實現途徑是，通過宣導人文價值觀，分享運動體驗，推動社會廣泛的體育參與意識；通過制度創新，構建公共服務體系，實行體育資源的分享。

## 順應社會發展大潮

早在中華人民共和國成立初期，我們已深感廣大勞人民長期被剝奪享受體育活動的權利，新體育應該為最廣大的工農群眾服務。在這樣的認識基礎上，確定了“要把體育普及到千百萬勞動人民中去”的目標。這與當前宣導公共服務均等化的思路，具有殊途同歸的一致性。

但在實踐中特別是全盤引進蘇聯模式的歷史背景下，人文學科被認為是資產階級的“偽科學”，體育的軍事訓練功能轉變為鞏固無產階級專政的工具。其後，無論是“乒乓外交”，還是由一場球賽的勝利吶喊出“振興中華”的響亮口號，直到“奧運爭光計畫”的制定和執行，中國體育把為政治服務的工具價值發揮得淋漓盡致，滿世界摘金奪銀，書寫了輝煌篇章。中國體育在民族主義的大旗下長期被軍國民思潮所浸潤，雖常以國家主義、科學主義的面貌示人，但其主流觀念仍然沒有根本的改變，至今仍然還沒有一個相對成熟的體育人文價值觀來取而代之，引領我國體育事業的發展。

“長期以來，我們選擇的是‘以物為本’的競技體育發展模式，認為競技體育就是奧運會，奧運會就是金牌，對競技體育的發展完全是運動成績或金牌至上的價值導向，而不考慮金牌的價值大小、內涵如何以及人民是否需要；在處理競技體育的發展與人的關係時，忽視人在競技體育發展中的主體地位，把人當作工具而把競技體育當作發展的目的，造成的直接後果就是競技體育的異化。”改革開放以來，由於“爭光”與公共產品劃上等號，體育運動的概念被高水準競技運動所置換，與需要分享改革開放成果的大眾無關。國家集權操辦的培養極少數運動精英的龐大行業體系在“奧運爭光”方面成績輝煌，但導致的主要負面結果為：改革開放以來中國選手獲取金牌不斷增多，而廣大青少年體能持續下降，草創的社會公共體育服務體系極其薄弱。中國體育只有真正具有人文精神，以中華民族身心健康發展作為衡量中國體育制度創新和制度安排得失的一把尺度，才能走出行業封閉和壟斷的尷尬境地，融入到以人為本的社會大發展中去。

中國體育需要改革，才能可持續發展。體育的可持續發展，必須適應社會發展潮流，由社會需求來推動其行進。中國在積極構建社會主義和諧社會。其價值內涵是民主法治、公平正義、誠信友愛、充滿活力、安定有序、人與自然和諧相處，最終實現廣大人民群眾各盡所能、各得其所、和諧相處的社會局面。然而，隨著中國經濟快速發展，體育發展失衡也必然折射出不盡如人意的社會矛盾。如何有力解決廣大人民群眾最現實的分享體育權益問題，是體育事業融入和諧社會的關鍵。

為了中國的和平崛起和中華民族的偉大復興，深化行政管理體制改革，提供公共服務，2006年中共十六屆六中全會確定了2020年構建和諧社會的目標和主要任務，其中包括“基本公共服務體系更加完備，政府管理和服務水準有較大提高”，提出逐步形成惠及全民的基本公共服務體系，把“建設服務型政府”作為重要內容。中央領導提出，公共服務體系建設的關鍵是創新公共服務體制，改進公共服務方式，形成公共服務供給的社會和市場參與機制。通過公共財政、社會組織、企業與家庭的合作，發揮和體現財政資金的公益性價值，提高公共服務品質和效益。在這樣的背景下，體育部門的行政管理的方式需要從主要埋頭操辦本行業的訓練比賽中抽出相當一部分精力，樹立公民本位、社會本位理念，在整個社會民主秩序的框架中，把自己定位於服務者的角色，承擔提供公共體育服務和產品的責任。

由於公共物品的供給和需求不能像私人物品的供求那樣完全通過市場機制反映出來，發達國家往往靠政府提供公共服務來解決市場難以承擔的大眾體育特別是弱勢群體的健身需求，而“爭光”一類的高水準競技反而可以交由市場通過選拔職業競技的頂尖高手的方式完成。審視當前的我國體育制度，政府力量過度集中于培養極少數競技精英，顯然難以顧及提供充分滿足大眾體育需求的公共產品。

我國對政府的認識經歷了全能政府、有限政府和公共服務型政府的認識，體育管理部門也不能例外。包括體育服務在內的公共服務體系，為促進社會公平和權利平等提供強大的基礎平臺，有利於振奮社會成員的精神，提高社會總體效率。體育制度完善的一個重要方面是使公共體育服務逐步擴展到整個社會，實現基本公共服務均等化，消除公共服務領域存在的不公平現象。

以順應社會改革大潮的“分享運動”觀念為理論導向，在公共體育意識的指引下，政府管理部門把提供公共體育服務作為頭等大事，打破行業壟斷和專業封閉，管辦分離、官民分離、政企分離，優質體育資源試行股權分置，爭光任務實施政府採購，部分專案從專業競技逐漸過渡到職業競技。“分享運動”作為公共體育服務意識在體育領域的特色理念，充分顯示親身參與身體運動的普惠價值，可外化延伸為校內體育運動資源與校外分享、專業性資源與社會分享、城市體育資源與農村分享、東部及沿海發達地區與中西部欠發達地區分享，等等。

以人為本的“運動分享”面向大眾、面向青少年，不但順應中國的社會發展潮流，也符合體育運動發展的世界潮流。奧林匹克主義一再強調把體育運動與文化和教育相融合，謀求創造一種以奮鬥為樂、發揮良好榜樣的教育作用並尊重基本公德原則為基礎的生活方式”。奧林匹克理想不僅關注體育，教育，而且又融入了當代人權和環境保護，可持續發展的理念，受到國際社會的廣泛認同。國際奧會在其官方網站上指出：“作為奧林匹克運動的道德和思想規範，奧林匹克主義可以被描述成一種生活哲學，通過體育這種形式傳遞教育的、和平的、人道的、文化的理念，還有最近引起人們關注的生態理念”（IOC.1998）。正當我們仍然高舉“奧運爭光”大旗的時候，首屆青少年奧林匹克運動會已橫空出世；國際奧會主席羅格宣佈申請舉辦2014年第二屆青奧會勝出的城市是南京，明晰傳遞了世界體育大潮期盼更多青少年參與的新鮮資訊。青奧會的創立是國際體壇觀念和制度層面的重大改革，它將控制參賽人數節約成本，限制大興土木新建場館，有效利用體育資源，將使更多的弱小國家能廣泛參與主辦小型運動會；更重要的是，這是鼓勵青少年在體育賽事中分享運動體驗，可不分國籍、民族、人種自由組合參加集體專案，最大限度地面對青少年開放體育文化，鼓勵積極參與和分享運動，靠廣大青少年自己的努力去擁抱未來。青奧會的舉辦使羅格註定要成為奧林匹克運動彪炳青史的人物。同時，幸運地成為奧林匹克改革助推者的中國體育，在“十二五”期間將在南京青奧會迎來獲得自主話語權的崛起際遇，也將迎來實現公共服務均等化的重大改革契機。





## 分享運動與運動分享走向公共體育服務均等化

“分享運動”與“運動分享”的本意並無不同，都是實現體育運動權利平等價值觀的最淺顯易懂的人文訴求。作為衡量體育發展的價值尺度，人文訴求是隱形的核心價值，實際上它相當複雜和深奧，往往被體育活動對人體所產生的明顯的生物性效果所掩蓋，更容易為體育競賽所引發的社會效益所取代。因此，“分享運動”的觀念必需要在制度層面尋找一個具有承載能力的平臺。

在現實中，人文學科的批評精神往往對工具理性支配下的體育制度產生觸動，會影響現實中原有的利益格局；同時，也因為理論解釋的路徑不同而容易混淆，導致說不清的結果；譬如健康、關懷、民主、和平、友愛、善良、朝氣等很難用量化指標來衡量，容易引起科學主義者的質疑。所幸的是，當今國家的改革大潮以明晰為建設公共服務型政府，把“分享運動”觀念作為推動公共體育服務體系建設的理論導向，名正言順。

值得注意的是，“分享運動”承載于全民健身的公共服務體系的組織形式，需要若干條件。

首先，需要提高體育工作者為大眾服務的公共意識，堅持把以人為本的理念具體化，自覺做到權為民所用，利為民所謀。公共服務主體能否意識到公共服務客體的需求並及時生產和提供優質的公共服務產品，能影響體育事業發展的速度和水準。

其次，公共體育服務體系建設的指導思想是惠及全民和公平公正，由體育行政管理部門牽頭、政府各相關部門積極參與的聯席會議定期舉行，目標是為大眾提供基本而有保障的公共體育產品，使全體人民分享改革發展成果的一系列制度安排。

最終的條件，在於政府為彌補和完善現有的制度缺陷，以國家財政投入，實施基本公共服務均等化。體現社會公平的目標，在於關注普通民眾的體育權益、需要和願望，尤其是農村與西部地區等弱勢群體的體育問題，涵蓋市場難以有效提供的公共物品，核心是在公共財政預算和支付的導向上，以足夠的財力支援公共體育服務體系的構建。

改革開放已經30多年了，中國在經濟高速增長之後，需要使全體人民分享到包括體育在內的改革開放豐碩成果，因此特別應該注意到社會公平。公共服務具有再分配的功能，通過均等化的制度設計，既要使全體人民學有所教、勞有所得、病有所醫、老有所養、住有所居，也要使公眾尤其是廣大青少年“體有所育”。宣導“分享運動”的觀念，推動基本公共服務均等化，是公共體育服務體系建設的長遠目標。對於我國體育而言，就是要使絕大多數人不僅能在精神層面分享極少數運動精英奪冠的喜悅，而自己也能獲得基本的身體運動機會。

中國作為世界上最大的具有城鄉二元結構發展中國家，人口多、底子薄，自然地理條件和人口資源分佈差異很大，城鄉和區域發展差距也很大。改革開放的巨大的成就，並未使中國解決基本公共服務發展滯後，總量供應不足，公共投入短缺，分配不平衡等非均等化的突出問題。我國體育事業在國家經濟捉襟見肘的起步階段集中力量於局部超前發展，改革開放以來的體育發展戰略是以發展高水準競技為先導，帶動體育事業全面發展；在取得輝煌成就以後，更應該讓大眾分享參與體育運動的快樂，從而收穫身心的強健，顯示體育領域的公平正義。

中國體育已經歷太多的輝煌，燦爛何懼陰霾，亡羊更應補牢。樹立“分享運動”的人文價值觀，是更新體育觀念的最佳選擇；是完善體育制度的重要步驟；是建立體育強國的理想路徑；是中華民族偉大復興的必要環節。進入新的歷史時期，中國體育事業肩負著重要的職責與使命，勇於變革，回歸體育的文化本位和普世性原則，用科學發展觀重塑中華體育精神，形成以青少年體育發展為中軸的新制度框架和運行機制，迎來體育事業的蓬勃發展。

展望未來，中國正經歷全方位發展模式的轉型，與發達國家的差距將迅速縮小；中國的強大不可阻擋，這不光表現在經濟實力上，也一定會反映於包括體育在內的社會文化的其他方面。正如中國經濟持續發展的長效模式不能用世界上現有的理論解釋一樣，中國體育發展之路也要靠自己認真探索。欣逢中華民族和平崛起的良機，企盼“分享運動”的觀念為體育理論研究增添一抹新綠，助中國體育生態和諧。

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# ***A Review of Post Game Facilities Use in 2008 Beijing Olympics***

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## **Introduction**

The post game situation of facilities used in Olympic Games has got attention more and more broadly, especially for the cities who want to host the Olympic Games. Some people believe the huge expenditure of facilities is worthwhile, because it would leave a tangible legacy for the host city to fulfill the recreation and leisure need of citizens. However, if the money is not well planned to spend, the expenditure could cause a disaster to the city or country, such as 1976 Montreal Olympic Games. If the host city do not use them in an efficient way, the super arenas seem to be a waste. And the maintenance cost of the facilities, especially after the games, should also be considered prudently.

There has been a tendency that the hosting cities estimated the outcomes of Olympic Games in an unrealistic optimism when they bid for the host right. They emphasize on the benefits to host the Games overwhelmingly. However, the history told us that many of the host cities suffered a lot afterwards, because they did not plan how to use the sport facilities after the games effectively. 2000 Sydney Olympics and 2004 Athens Olympics both had this problem. (Glen, 2002; Jin Can, 2006)

Since 1984 Los Angelis and 1996 Atlanta Olympic Games got an impressive economic success, the US model has demonstrated Olympic Games could be profitable. The point is that US is of the best well-developed sport industry and market function in

the world. However, for other cities, such as Athens and Sydney, the results were not positive. (Jin Can, 2006). How about Beijing, which is the capital of the biggest developing country? Is there anything we should pay attention to 2008 Beijing Olympics regarding the post-Olympic facilities arrangement? Are there any lessons and features of post game facilities arrangement in previous Olympics should be learnt?

## **Objectives**

The present review aimed to review the studies of post game facilities use in 2008 Beijing Olympics to :1) find if Beijing achieves the goal which is set before the bid of the 2008 Olympics regarding the use of facilities after the Games; 2) explore the factors influence the facility usage after Beijing Olympic Games; 3) learn from other Olympic Games in the last decades and make recommendations to Beijing for the better use of the sport facilities in the future.

## **Review Strategy**

Electronic databases China Academic Journals Full-text Database (it is the sub-database of the China Knowledge Resource Integrated Database), ProQuest and Web of Science were searched to retrieve Chinese and English language articles published in academic journals from January 1990 to November 2010. The Key words used were: sport facilities, venue, infrastructure, gymnasium with "Olym. Selected articles provided information of the post game facilities usage of 2008 Beijing Olympics.

Seventeen Chinese journal articles were identified and analyzed in the present review since no English article is found on this theme. The articles are all published in Chinese core journals, which are holding the highest academic criteria in China. Among them, six articles investigated the situation of post game facilities use after Beijing Olympics, remaining papers analyzed previous Olympic host cities' experiences and made recommendations for Beijing before the Games.

## **Sport facility design in Beijing Olympics**

Twenty years ago, when Beijing constructed the sport facilities and infrastructure to host the 1990 Asian Games, related bureaus and government officials already considered bidding for mega sport events with these facilities. (He, 2008) However, the evaluation of Beijing bidding for the 2000 Olympic Games from the IOC was that those facilities were not good enough to host Olympic Games in 2000, especially the players' changing room of some stadiums (He, 2008). It is difficult to deny that at that time Beijing's infrastructure could not compete with Sydney which was a better choice in the opinion of IOC.

After a high speed development at the end of 20 century, Beijing became a more international and hi-tech metropolitan. Beijing decided to bid for the 2008 Olympic Games again in 2001. Since the facilities of 1990 Asian Games has no way to fulfill the need of hosting Olympic Games in the 21st Century, it

is anticipated that a lot of money has to be invested on the high level international competitive sport facilities if Beijing could win the bid.

There is a tendency in the last decades that candidate cities of Olympic Games would like to host a “Best” Olympic Games to impress the world. Consequently, the competition between the bidding cities became more and more intensive in the past twenty years. It is a common phenomenon that the bidding cities provided super sport facilities which would surpass the standard issued by IOC. (Table 1) (Lin, 2005).

Certainly, this super standard facility design and construction would lead into both financial cost and management concern to the hosting city after the Olympic Games especially for those cities whose sport industry development is not as mature as western, like Beijing. There might not be many other sport events held in these facilities after the Olympic Games. Therefore, there is a puzzle that how to resolve the post-Olympic use of those hi-tech and competitive sport facilities for the hosting cities.

Table 1 : Comparison of the Seating Capacity of 2000-2008 Stadiums and the Standard for 2012

	2000 Sydney Games	2004 Athen Games	2008 Beijing Games	IOC Standard for 2012 Olympic Games
Archery	4500	5500	5000	4000
athletics	115600	75000	80000	60000
badminton	6000	5500	7500	5000
basketball	20000	18000	20000	12000
Beach Volleyball	10000	10000	10000	12000
Boxing	10000	8000	13000	6000
Canoe/ Kayak Slalom	12500	5000	15000	8000
Canoe/ Kayak Flatwater	22000-24000	14000	20000	10000
Cycling Track	6000	5000	6000	5000
Diving	17500	6500	17000	5000
Equestrian (Jumping)	50000	20000	30000	12000
Equestrian(Dressage)	50000	8000	30000	12000
Equestrian(Eventing)	40000	40000	50000	
Fencing	10000	5000	10000	4000
Football (final)	11560	75000	80000	
	42000/ 37000/20000	28000/20000 27000/17000		
Gymnastics	6000	6000	19000	12000
Handball (final)	10000	15000	19000	8000
Hockey	15000	15000	19000	8000
Judo	9000	8000	9000	6000
Rowing	27000	14000	20000	10000
Sailing		3000	9000	
Swimming	17500	11000	17000	12000
Table Tennis	5000	6000	10000	5000
Taekwondo	5000	8000	9000	5000
Tennis	10000	8000	12000	10000
Volleyball	11000	14000	19000	12000
Weightlifting	3800	5000	5400	5000
Wrestling	9000	9300	10000	6000

The high seating capacity of stadiums implied that Beijing would host one Olympic Games without caring about the cost. In fact, after more than twenty years implementing the economic reform and open policies, China has learned a lot from the market economy and the event management experiences from other countries. Although Chinese still had strong motivation to win the bid and host the Games in order to impress the world, Chinese people have learned to balance the cost and benefit when

bidding the Games. It is expected that the sport facilities designed for 2008 Beijing Olympics would be constructed in a more international way, which would become the strong selling point for Beijing to bid.

Mr. He Zhengliang, who is the first IOC member of China and once the vice president of IOC, pointed out that Olympic Games could be either hosted by commercial sector or government, or the combination of both. IOC thought the combination is the most successful model (He, 2008). Currently, the combination of government and commercial sector is the most popular model to manage mega sport events in the world, which is referred as public private partnership (PPP). And many researchers (Lin, 2005; Ma, et al. 2009; Xu, 2007; Lui, 2010) also recommended that Beijing should apply the PPP model to construct and manage the sport facilities throughout the Games. For example, the National Stadium of China, which is also called Bird Nest, was adopted this model.

## The post game use of sport facilities in previous Olympic Games

After Beijing won the bid, a few studies analyzed the experiences of previous host cities to provide suggestions to Beijing. They mainly reviewed and summarized the models in which how post game sport facilities were used after the Olympic Games in the last two decades.

To summarize, there were five major arrangements of post-Olympic use of sport facilities (Lin, 2005; Xu, 2007; Ma, et. Al. 2009).

- 1) Do not change the function: after the games, the sport facilities, especially in the Olympic Park, become a big sports center. These facilities continued to hold sports activities, such as sports competition of elite athletes or universities, training centers of elite players and so on.
- 2) Restore the facilities to their origin function: many host cities employed convention and exhibition centers as sport facilities to save money. The Olympic Village would become house, dormitory of university or offices.
- 3) Multi-function design: some



Olympic facilities adopted multi-functional design. They can hold sport games, exhibition, concert, and other large scale entertainment activities. This design would increase the usage of facilities and make profit and avoid the waste of resources.

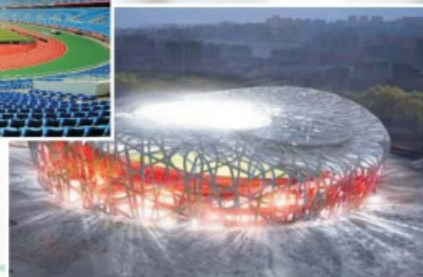
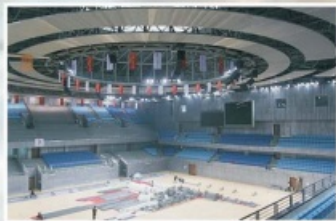
- 4) Construct temporary sport facilities: these facilities were mainly used for the Games which were not popular in the local community. So it is a good option to remove them after Olympic Games to save the huge maintenance cost of these facilities.
- 5) Expand the origin function of the facilities: change the structure and functions of the facilities. For example, the French stadium, which hosted the 1998 World Cup Soccer, now is a complex with three restaurants, one lecture hall and 50 bars.

Lin Xianpeng (2005) further summarized the arrangement of post game sport facilities in modern Olympics. (Table 2)

Table 2 Post Game Use of Sport Facilities in Modern Olympic Games

Kind of facilities	Post game use arrangement		Post game use	
Main Stadium	3	4	The main stadium mainly served as the sports, cultural, entertainment, exhibition, business, political, religion events.	
Main gymnasium	3		Hold sport, cultural, entertainment, exhibition, business activities indoor.	
Multi-functional gymnasium	2		Host cities always used exhibition and conference centers as temporary gymnasiums. These facilities became the new force to develop the exhibition business of host cities.	
Small gymnasiums	1	4	These sport facilities were most in the universities and communities. They provided space for public to exercise. It should be paid attention that there have to be enough sport population around these facilities.	
Outdoor venues and grass ground	1	2	4	It is common to construct some temporary facilities here. Some were in the Olympic Park. After the games, they became the components of the sightseeing area and public recreation.
Olympic village	2		The village mainly (1) solved the lack of residence of the city (including 1952,1956, 1960, 1968, 1980 Olympic Games); (2) became the residential area (1972 and 1976 games); (3) became high-end luxury residential area ( 1988 and 1992 games ) ; (4) became dormitory of Universities (1984 and 1996 games).	
Velodrome	1	4	It was usually used as the training base for the elite athletes.	
Aquatics Center or Natatorium	1	4	After the Games, they were open to public, contributing to the mass sport. The aquatics center of Montreal Olympic Games became a water park. As for Atlanta Olympic Games, the natatorium was given to the Georgia Institute of Technology.	

\* The number in the form represents the arrangements mentioned above respectively.  
 \* This form is summarized by Lin based on the Olympic Games Official Reports since 1972.



## The post game use of Olympic facilities in Beijing Olympics

In fact, the planning and design of the sports facilities in Beijing followed the arrangements of post-Olympic use of sport facilities (Lin, 2005; Xu, 2007; Ma, et. Al. 2009). Based upon the guideline of hosting Olympic Games thriftily, Beijing developed some facilities in universities, decreased the eternal facilities and increased the temporary facilities construction. In order to raise funds to construct the large scale sport facility for Beijing Olympic Games, the PPP model was adopted.

According to Chen and Dong (2010), the Beijing Olympics sport facilities faced different issues after Olympic Games. Some were well used and some were not fully used. Their study provided basic information to understand the post-game situation of sport facilities. Table 3 has summarized their main findings. From the summary, the post game usage of sport facilities mainly aligned with the Table 2 arrangements.

Table 3 Post Game Use of Sport Facilities in Beijing Olympics

Sport facilities	Beijing Post game use (2008.9.29 - 2009.12)	Table 2 Post game arrangement		
		1	2	3
National stadium	<ol style="list-style-type: none"> <li>sports events: 2009 Beijing International Football Season (Italian Super Cup); 2009 Race of Champions;</li> <li>Jackie Chan and his friends' concert, 2009 Charming China Concert, Opera Turandot;</li> <li>tourism;</li> <li>other public activities: softball promotion in the world softball day, hold hand with Bird Nest activity.</li> </ol>			3 4 5
National indoor stadium	<ol style="list-style-type: none"> <li>performance: "set good carnival" charity event, 2009 Lang Lang New Year Concert;</li> <li>business activities: Chinese brand festival, new car launch;</li> <li>educational activities: the flame never goes out, anniversary ceremony of university.</li> </ol>			3
Water Cube	<ol style="list-style-type: none"> <li>national swimming champions;</li> <li>tourism;</li> <li>magic water cube concert, swan lake ballet performance</li> </ol>			3 4 5
Laoshan Velodrome	<ol style="list-style-type: none"> <li>training base for the national cycling team;</li> <li>world cup of cycling track and national cycling track champions;</li> <li>found two clubs: laoshan cycling club and laoshan fencing club.</li> </ol>	1		5
Wukesong Indoor Stadium	<ol style="list-style-type: none"> <li>2009 NBA Pre-season;</li> <li>concerts: Avril concert, Beyonce concert.</li> </ol>	1		5
Olympic Park	<ol style="list-style-type: none"> <li>tourism;</li> <li>exhibition;</li> <li>public activities: taichi, garbage sorting, distance running .</li> </ol>	1 2		5
Beijing Science and Technology University Gymnasium	<ol style="list-style-type: none"> <li>concert;</li> <li>other universities events.</li> </ol>	1		5

\* the number in the form represents the arrangements mentioned in Table 2.

The national stadium (Bird Nest) construction adopted the PPP model. The government of Beijing, Zhong Xin Company and other two companies funded for its construction. According to the agreement, Zhong Xin Union would manage the stadium for thirty years after the Games and be responsible for its operational cost and profit. It was the original operational design. In reality, it was found very difficult to run the stadium. A businessman, who involved in the design of the national stadium, said the business area is not useable because the location, lighting and so on (Lin, 2009). The business area is mainly in the underground of stadium with few accesses to customers. Although the business area seems big, the usability becomes less. Except one Olympic souvenirs shop, no business could make profit in the national stadium (Lin, 2009). KFC was the first restaurant staging into Bird Nest. It soon pulled out because the earning could not cover the high rent and other operational cost.

Though Zhongxin Union has the management right of Bird Nest for thirty years, the Company do not have much decision making authority in terms of the business in the Stadium. For example, they wanted to stage shows in the stadium to attract more tourists and start more business, such as selling food and beverage or setting up many other shops. Their plan was rejected by the Beijing government. As for the naming right, researchers (Liu, et al. 2010, Xu, 2007, Jin, 2007) believed that it could attract different sponsorships with finance return to run the stadium. However, this plan was found difficult to be accepted by the public in which the Bird Nest has another name under an enterprise (Lin, 2009)

As for the sport events and performances, though very few events could afford the high rent of the Bird Nest, it still attracted many spectators to fill in the stadium. There were still many applications from all over the world to hold mega events in Bird Nest because of the Beijing Olympic Games effect and the unique design of the building. Although Zhongxin Union kept asking for holding concerts in the Bird Nest, only two applications were approved due to the safety concern (Lin, 2009).





Fortunately, there is one thing that the Zhongxin managers did not expect. The tourists were much more than they estimated. During the holiday of national day in 2008, the number of tourists had to be limited to 80,000 per day for the safety consideration. After holiday, there were still 20,000 tourists coming for the Bird Nest per day (Lin, 2009). From 2008.9.29 to 2009.8.8, there were about 4,500,000 tourists and 3,800,000 tourists visited Bird Nest and Water Cube respectively (Li, 2010). The income of tourism became the main profit source to manage these facilities. But the number of tourists would decrease with time. So it is very hard for Zhongxin Union to profit in the coming years. Due to the conflict between the business and public regarding the usage of the Stadium, the partnership of Zhongxin Union and Beijing government became unstable (Lin, 2009; Wang, et al. 2010; Li, et al. 2010). Finally, Zhongxin Union gave up their thirty-year management right to get back its 48% stock right. Beijing government regain the right to manage the Stadium directly and be responsible for its operation and cost. To conclude, this result demonstrated a unsuccessful trial of the first PPP in China.

## The facilities in the universities

In the last decades, some hosting cities employed universities and its existing or newly built sport facilities for the Olympics (Zhou, 2006). Since majority of the university students live in the campuses in China, there was no need to worry the post game use of these facilities. The sport facility sizes were generally moderate, and their function was mainly for the physical education and sports activities in universities. Thus, it could provide space and related facilities for other mega events in the universities too. It is a successful practice to construct facilities of Beijing Olympic Games in the universities. It really leaves a legacy not only for the city but also to the young generation of China.

## Conclusion

From the review of the selected articles which studied the post game use of sport facilities after the Beijing Olympic Games, we may conclude that Beijing has learned a lot from previous Olympic cities. The Beijing Organizing Committee for the Games of the XXIX Olympiad (BOCOG) accepted many suggestions from researchers to prepare the Beijing Olympic Games

from a long-term perspective. The design of the new facilities were conducted in a more international and hi-tech standard. The architectures became the new symbols and landmarks of Beijing and have attracted many tourists from inland China and all over the world. Likewise, existing sport facilities got a chance to renew its qualities. The new facilities in universities left a legacy to activate young people to be more physical active.

Currently, Beijing still faced a complex situation and a lot of unknown issues. With the passion to the Olympic Games, Beijing got the most support from citizens to host the games. And with the same passion, the post game sport facilities attracted a lot of tourists to visit. However, except the contribution to the tourism, exhibition and performance business, the Olympic sport facilities have not utilized fully for the sport industry. Originally, these facilities were designed to host mega sport events like Olympic Games. If there is no other sport event held in these facilities in the future, it would be a huge waste. It is imperative that the Chinese sport industry needs to advance with the experiences learnt from the 2008 Beijing Olympic Games. To conclude, the PPP model is still on a pilot stage in the 21st century China.

**RMA**

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