

## Motivation to Participate in Sport Level and Related Factors among Cambodia National Athletes

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### ABSTRACT

This descriptive study was designed to assess the motivation to participate in sport level and related factors among Cambodia National Athletes (CNAs). The inclusion criteria were the CNAs who aged (18-40 years old) and registered with identified from National Sports Training Center (NSTC), Cambodia. The study population was 347 players. The study tool was a self-administrated questionnaire which consists of demographic data, sports motivation scale (SMS -28) and factor related to sport motivation. The sports motivation scale (SMS -28) English version has been translated into the Khmer language by back translation technique which the Cronbach's alpha coefficient found 0.93. Descriptive statistics, independent sample t-test, ANOVA and multiple regression were applied for data analysis. The response rate was 100.0% . The results show a high level of motivation as the mean score was 4.13 (0.31) 95% CI, 4.09,4.15. The highest dimension of sports motivation level was extrinsic motivation– identified and intrinsic motivation - to experience stimulation. When controlling other related factors, this study found the sports coach style, a training program which targeted athletes and encourages and support by the family were statistically related to motivation to participate in sport level. This study provides practical implications associated with the promotion of better sports motivation among CNAs and its' factors which can be used to develop a sports motivation program for CNAs and to encourage more athletes to participate in activities and can develop athletes more potential.

**Keywords:** Motivation, Participation in sport, Cambodia

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## Introduction

Cambodia is an agricultural country located in Southeast Asia. The promotion of sport participation is of strategic importance for policy in the Kingdom of Cambodia (CAM) because of its impact on health, well-being, personal and social development, and economic development, as outlined in the government strategy or carries out physical education and sports to promote the health and well-being of all the Cambodia people, both physically and psychologically as well as good physical and mental abilities for healthy people, keep strong and healthy which contributes to building human capital into a good citizen, contributing to building and defending the homeland. To strengthening the strategies, Ministry of Educating Youth and Sport (MoEYS) has the aim and policy of the development of the sport, physical education, promote health, physical and sports education competence of pupils, youths, people with quality and effectiveness local and international competitions and contribute to social, cultural and economic development.

Meanwhile, the sport in Cambodia who athletes training or national and international competition there are: 1 Petanque, 2 Taekwondo (W.I.T), 3 wrestling, 4 Kun Khmer, 5 SepakTakraw, 6 Tennis, 7 Boxing, 8 JiuJishu, 9 Equestrian, 10 Volleyball, 11 Beach Volleyball, 12 Basketball, 13 Athletics, 14 Swimming, 15 Wushu, 16 Gymnastics, 17 Cycling, 18 Fencing, 19 Soft Tennis, 20 Table Tennis, 21 Badminton, 22 Triathlon, 23 Karate-do, 24 Tradition boat race, 25 Canoeing, 26 Judo, 27 Sailing, 28 Golf, 29 Shooting, 30 Dance Sport, 31 Vovinam, 32 Bokator, 33 Taekwondo (I.T.F), 34 Sorijekampo, 35 Oak Sport, 36 Water motor, 37 Football [1].

The Cambodia national athlete (CNAs) is a team that represents Cambodia, rather than a particular club or region in a national or an international sport participate in the competition every year. In response to the above context and the context of globalization, the MoEYs had been strongly encouraged (CNAs) to participate in sports activities based on motivation, salary monthly, stay, food and support material during the time of training or competition. In addition, the National Sports Training Center (NSTC) [2] has taken the role of examining the training methods of all Cambodia national athletic in order to achieve quality, ability, and responsibility in accordance with the professional code of ethics.

Motivation refers to reasons that underlie behavior that is characterized by willingness and intention. Motivation comprises people with perceived reasons for engaging in an activity. In sport, motivation is one of the factors that play a key role in the participation of individuals to sport [3]. The dimension of athletes' motivations for participation in sports competitions was classified as sport orientation in activity, training, and competitions [4]. Identification of these dimensions among athletes may help directly individual motivation to participate in sports competitions and activities by developing athletes' mental skills, identifying mental weaknesses and strengths, preparing individuals for participation in different sports, performing special skills and sports participation in different competitive situations [5].

This study was modified by integrating the sport motivation theories which explain motivation and behavior based on individual differences in motivational orientations, contextual influences, and interpersonal perceptions [6]. However, the motivation to participate in sport and related factors is not well understood in Cambodia. Therefore, the

motivation to participate in sport level assessment and identify related factors among CNAs would be beneficial for the CNAs and MoEYS due to be used to develop sports motivation program and to encourage more athletes to participate in activities and can develop athletes more potential.

## Objective of the study

1. To assess the motivation to participate in sport level among CNAs
2. To identify factors related motivation to participate in sport among CNAs.

## Methodology

This cross-sectional descriptive study was conducted in Phnom Penh city, Cambodia. The target population was 347 CNAs. The inclusion criteria were the CNAs who aged (18-40 years old), gender (male and female), CNAs who registered with identified from NSTC, especially normal physical, healthy, training programs and joined a local or international competitor. the exclusion criteria were the CNAs who have mental health problems who disabilities who have injuries in parts of the body which difficult communicate with the research or completed the questionnaire. Due to this study aims to assess the motivation level among the CNAs, thus, this study decided to study all of the study population with the type of sports. Therefore, the study population was 347 players as shown as table1 below:

**Table 1** Study population of Cambodia national athletes

No	Type of Sports	Totals
01	Petanque	34
02	Taekwondo (W.I.T)	11
03	wrestling	15
04	Kun Khmer	08
05	Sepak Takraw	08
06	Tennis	06
07	Boxing	08
08	Jiujitsu	05
09	Equestrian	08
10	Volley ball	12
11	Beach Volleyball	06
12	Basketball	12
13	Athletics	10
14	Swimming	11
15	Wushu	05

**Table 2** Study population of Cambodia national athletes (Cont.)

No	Type of Sports	Totals
16	Gymnastics	12
17	Cycling	06
18	Fencing	04
19	Soft Tennis	10
20	Table Tennis	04
21	Badminton	08
22	Triathlon	06
23	Karate-do	11
24	Traditional boat race	07
25	Canoeing	07
26	Judo	08
27	Sailing	04
28	Golf	06
29	Shooting	10
30	Dace Sport	06
31	Vovinam	17
32	Bokator	08
33	Taekwondo (I.T.F)	10
34	Sorinjekampo	06
35	Oak Sport	06
36	Water Motor	07
37	Football	25
Total		347

### ***Instrument***

Based on the conceptual framework, a self-administrated questionnaire was used, which consists of demographic data, sports motivation scale (SMS -28) [7], [8] and factor related sport motivation.

In part of the sports motivation scale (SMS -28) which indicate to what extent each of the items corresponds to one of the reasons for which the CNAs are presently practicing in sport. This sports motivation scale (SMS -28) English version has been translated into the Khmer language by back-translation technique. The SMS-28 was composed of three types of intrinsic motivation such as knowledge, achievement and stimulating experiences and three of the three types of extrinsic motivation, namely identified, introjected and external regulation. The score of SMS-28 was ranging from 1 to 5 (5 Strongly agree, 4 Agree 3 Uncertain 2 Disagree 1 Strongly disagree). The interpretation of this tool refers to the higher score which closes to 5 which means higher motivation. The pretest was conducted for approving in feasibility and reliability test found the Cronbach's alpha coefficient as 0.93.

#### ***Data collection procedure***

Prior to starting data collection, this study was reviewed and approved by the Ethics Committee for Research on Human Subjects (HE612392), Khon Kaen University, Thailand. All the CNAs participants were informed consent and guaranteed to kept confidentiality and feel free to decide to participate in the study. The researcher had contacted all Cambodia National federations for the license and the team manager for permission for data collection. Data was collected by the researcher at a time that the CNAs participants available. The time duration for data collection was 1 month, in January 2019.

#### ***Data analysis***

The software of Statistical Package for Social Sciences (SPSS for Windows) Khon Kaen University licensed was used for data analysis. Data double entry technique was used to ensure the accuracy of data entry process. Descriptive statistics such as frequency, percentage, mean, SD and 95%CI were used to descript the CNAs participants characteristics, sport motivation scale. Inferential statistics such as bivariate analysis was performed using t-test and ANOVA to assess associated with sport motivation level. In multivariate analysis, multiple regression analysis was used to identify factors predicting sport motivation levels among the CNAs.

## **Results**

#### ***General characteristics of subjects***

During the study period, 347 CNAs agreed to participate in this study. Thus, the response rate was 100.0%. The sample CNAs was comprised of male than females. More than half of the CNAs age was range between 18-22 years old. In terms of education, most samples of CNAs were high school students. Regarding Number of the years of being CNAs, approximately half of the sample was being the CNAs for 1-2 years. In terms of the sports education course attending of CNAs, this study found most of the sample attended seminar on ethics is a national sport and Technical regulations in national competition training. This study also found 16.7% of CNAs were trained in Ability training abroad and 29.4% were trained in Technical regulations in international tournaments training. (Table 2)



**Table 2** The Cambodia national athletes' characteristics

The Cambodia National Athletes' characteristics	Number (n=347)	Percentage (%)
<b>Gender</b>		
Male	267	76.9
female	80	23.1
<b>Age (years)</b>		
18-22-years-old	222	64.0
23-27-years-old	87	25.1
28-32-years-old	18	5.2
33-37-years-old	16	4.6
Over 40 years- old	4	1.2
<b>Education level</b>		
Primary school	6	1.7
Secondary school	35	10.1
High school	218	62.8
Associate degree	13	3.7
Bachelor degree	73	21.0
Master degree	2	.6
<b>Number of the years of being Cambodia national athletes</b>		
1st year	85	24.5
2nd years	119	34.3
3rd years	58	16.7
4th years	36	10.4
5th years	11	3.2
6th years	6	1.7
7th years	7	2.0
8th years	4	1.2
9th years	5	1.4
Over10th years	16	4.6
<b>Technical regulations in national competition training</b>		
No	94	27.1
Yes	253	72.9
<b>Technical regulations in international tournaments training</b>		
No	245	70.6
Yes	102	29.4

**Table 2** The Cambodia national athletes' characteristics (Cont.)

The Cambodia National Athletes' characteristics	Number (n=347)	Percentage (%)
Seminar on ethics is a national sport		
No	60	17.3
Yes	287	82.7
Local capacity training		
No	206	59.4
Yes	141	40.6
Ability training abroad		
No	289	83.3
Yes	58	16.7

***Motivation to participate in sport***

The degree of motivation to participate in sports was measured on the rating scale from 1-5. This study found a high level of motivation as the mean score was 4.1261 (0.31) 95%CI, 4.09, 4.15. When comparing the level of motivation dimension, the highest dimension of sports motivation was extrinsic motivation – identified and intrinsic motivation - to experience stimulation. (Table 3)

**Table 3** Motivation to participate in sport

Dimension of Motivation to participate in sport		mean	SD
Intrinsic Motivation	Intrinsic motivation - to know	4.21	0.41
	Intrinsic motivation - to accomplish	4.09	0.43
	Intrinsic motivation - to experience stimulation	4.27	0.39
Extrinsic Motivation	Extrinsic motivation – identified	4.28	0.41
	Extrinsic motivation – introjected	4.09	0.41
	Extrinsic motivation – external regulation	4.16	0.43
All motivation		3.78	0.71
Totals motivation mean score level		4.1261 (0.31)95%CI, 4.09,4.15	

***Factors related motivation to participate in sport***

The bivariate analysis of the factors related to motivation to participate in sport is summarized in table 4. This study found socio-demographic factors, age group and the number of the years of being CNAs was related to motivation to participate in sport significantly. This study also found the extrinsic factors such sports coach style, the training program which targeted for athletes and encourage and support by family were related to motivation to

participate in sport statistical significantly. In addition, in part of intrinsic factors, this study found internal factors such as judgment and criteria related to motivation to participate in sport statistical significantly.

**Table 4** Bivariate analysis for factors related to motivation to participate in sport of CNAs

Variable	Motivation to participate in sport			
	n	mean	SD	P-value
<b>Socio-demographic factors</b>				
<b>Gender</b>				
Male	267	4.1194	.29477	0.461
Female	80	4.1482	.33991	
<b>Age</b>				
18-22-years-old	222	4.1100	.31230	0.012*
23-27-years-old	87	4.1067	.31384	
28 and over	38	4.2641	.19816	
<b>Education level</b>				
Primary and secondary school	41	4.1298	.36898	<b>0.948</b>
High school	218	4.1221	.29510	
Associate degree and over	88	4.1343	.30208	
<b>Number of the years of being Cambodia National Athletes</b>				
1-2 years	204	4.0865	.30558	<b>0.012*</b>
3-4 years	94	4.1949	.30770	
5 years and over	49	4.1589	.27808	
<b>Extrinsic factors</b>				
<b>Sport coach style</b>				
Very satisfied and satisfied	177	4.2573	.24500	<b>&lt;0.001*</b>
Neutral, dissatisfied and very dissatisfied	170	3.9895	.30294	
<b>Training program which targeted for athletes</b>				
Very satisfied and satisfied	265	4.2022	.26561	<b>&lt;0.001*</b>
Neutral, dissatisfied and very dissatisfied	82	3.8802	.29767	
<b>Encourage and support by family</b>				
Very satisfied and satisfied	259	4.1922	.26512	<b>&lt;0.001*</b>
Neutral, dissatisfied and very dissatisfied	88	3.9314	.33372	
<b>Intrinsic factors</b>				
<b>Reasons of Cambodia Nation athletes for motivation to participate in sport among athletes</b>				



**Table 4** Bivariate analysis for factors related to motivation to participate in sport of CNAs (Cont.)

Variable	Motivation to participate in sport			
	n	mean	SD	P-value
<b>Challenge</b>				
Yes	50	4.0929	.26491	<b>0.407</b>
No	297	4.1317	.31186	
<b>Curiosity</b>				
Yes	138	4.1573	.29484	<b>0.121</b>
No	209	4.1054	.31131	
<b>Mastery</b>				
Yes	247	4.1319	.29143	0.580
No	100	4.1118	.33888	
<b>Judgment</b>				
Yes	219	4.1647	.29889	0.002*
No	128	4.0600	.30650	
<b>Criteria</b>				
Yes	190	4.1669	.28923	0.006*
No	157	4.0767	.31805	

\*statistically significant at  $p < 0.05$

#### *Multivariate analysis of factors related to motivation to participate in sport of CNAs*

The results of the multivariate analysis are summarized in Table 5. Variables that were statistically different on bivariate analysis were included in the multivariate model. When controlling other related factors, this study found three statistically significant variables were that related to motivation to participate in a sport such as the sports coach style, a training program which targeted athletes and encouraging and support by family. All of the predictive variables were in the positive direction and sports coach style was the factor with the strongest positive correlation, while the factor with the weakest positive correlation was the training program which targeted for athletes.

**Table 5** Multivariate analysis of factors related to motivation to participate in sport of CNAs

factors	Standardized coefficients (B)	95% Confidence interval for $\beta$		t	p-value
		Lower bound	Upper bound		
Age	.062	-.017	.072	1.22 4	.222
Number of the years of being Cambodia national athletes	.066	-.014	.070	1.29 3	.197
sport coach style	.302	.123	.246	5.901	<0.001*
training program which targeted for athletes	.235	.098	.240	4.703	<0.001*
encourage and support by family	.244	.107	.236	5.238	<0.001*
Intrinsic factor- judgment	.066	-.014	.098	1.468	.143
Intrinsic factor- criteria	.001	-.055	.056	.013	.990
Constant	3.665				
Adjusted R-square	.342				
F	26.736				
P-value	<0.001				
n	347				

\*statistically significant at  $p < 0.05$

## Discussion and Conclusions

### *The motivation to participate in sport level among CNAs*

Motivation can be defined as the force that energizes and directs behavior [9]. Motivation during the game a very important role in the play, team preparation, sports practice. Motivation to play sports is the reason for the selection and dedication to play motivation to play sports is the reason for the selection and dedication to play [10]. This study found a high level of motivation as the mean score was 4.1261 (0.31) 95% CI, 4.09,4.15 which similar to the sport motivation level among taekwondo athletes in Turkey [11] and the study among members of the Thai-Japanese Sports Training Center in Thailand [12] due to almost of the studies sample was young athletes whom had the characteristics that their body was fit for sport, positive attitude in sport, coachable and self-motivated.

### *Factors related motivation to participate in sport among CNAs*

This study found three extrinsic motivation factors statistically significant variables were related to motivation to participate in a sport such as sports coach style, training program which targeted athletes, and encouraging and support by family.

In part of sports coach style, Greif [13] defines coaching as the question-based enlightening, inspirational and energizing process by a coach to orient a player to the realities of a situation to help the player achieve desired goals. The previous study found relationship between coaching styles, basic psychological needs and intrinsic motivation effect to successful in sport had a significant direct and indirect effect on successful sports [14]. Due to almost of CNAs sample was young athletes who had positive attitude for sport, aims to maintain status for a national athlete, thus, coaching factors was effect to their intention and performance. Besides, a literature review found coaching style was related to motivation to participate in sport due to the coach enlightening, inspire and energizing for young athletes which beneficial impact on athlete youth sports performance than controlling climate coaching style, which is important determinants of sports performance and persistence to achievements [15].

In terms of the training program targeted for athletes. It is known that adequate training of the athletes, through long-term plans is the fundamental condition for the development of sports athletes. Leite et al and Williams et al [ 16, 17] reveal that psychological skills training can be effective in enhancing athletes' performance and positively influencing cognitive and affective states. The study of the effect of a psychological skills training program on swimming performance and positive psychological development shows that the targeted training program such as physical fitness, skills technics, tactics, or sport science effect on sports performance and motivation to participate in sport among the athletes.

The family influence sports athletes. Jean Côté [18] stated that parents provide opportunities for their children to enjoy sport, all children within a family participate in various extra-curricular activities, parents recognize a "gift" in the child-athlete, athlete makes a commitment to sports, parents emphasize school and sport achievement, parents make a financial and time commitment to their child athletes, parents develop a growing interest in their child-athletes sport and also parents help athlete fight setbacks that hinder training progression. However, the role of the family in children's sports involvement is a complex phenomenon because of the diversity of the family context. Especially in Cambodia, the parent characteristics and expectations of their family athletes study are needed for further study.

In conclusion, this study found a high level of motivation to participate in sport among CNAs. However, to maintain and promote the motivation to participate in sport, the three factors that this study found such as sports coach style, a training program which targeted for athletes, encouraging and supporting by the family were recommended for intervention program among CNAs.

## Implications

This study provides practical implication for better understanding of the motivation to participate in sport level and it's a factor related to CNAs. The study findings were beneficial for the MoEYS of Cambodia and other similar sport organizations to be used for developing the sports motivation program to encourage more athletes for better sports performance.

## Recommendations

To promote motivation to participate in sport among CNAs.

1. Promote the coach to athletes for all type of sports
2. The training program which targeted for athletes for all type of sports especially in regulation and ethics in the international tournament
3. Promote the family role for motivation to participate in sport among CNAs

## Limitations of the study

Study limitations can be traced to the lack of generalizability because data collection was carried out only in Phnom Penh. Besides, the newer version of the Sport Motivation Scale [19] was not used for the current study. In addition, motivation to participate in the sport of this study is a subjective evaluation; it relies on the athletes' perception, mood, and attitude which change over time. Therefore, the measurement depends on the athlete's perception only. However, the strength of this study was a 100% response rate which can be represented by all national athletes in Cambodia.

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