



# The Gender Differences in Achievement Motivation of National Level Table Tennis Players' in Sri Lanka

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## Abstract

Sports have turned out to be a global success factor for many countries. It was revealed that the sports performance of table tennis players of Sri Lanka in the international arena is not attractive. This is proven from the medal tables of Olympic, Asian Games, and South Asian Games. There are many factors affecting sports performance which can be broadly categorized under player Related factors, coach-related factors, administrative factors and, Environmental factors. A review of the recent literature relating to player-related factors revealed that achievement motivation is among the key factors which had proven successive results. Therefore, the main purpose of the study was to analyze the correspondence between achievement motivation and perceived performance. Achievement motivation was assessed by the constructs namely, the hope of success and fear of failure. This study utilized gender as a moderating variable, suggesting that the perception of achievement motivation and performance differ as per gender. The study was conducted during all Island ranking tournaments held in January 2020 and considered only the table tennis players. The study population was 80 (n=80) male and female top-ranking Table Tennis players. Universal sampling technique was used and considered top-ranking male and female players as the sample. Only 55 completed questionnaires were received and were utilized for data analysis. Achievement motivation questioner and athlete perception of player performance test were administered to collect the data. Statistical calculations were conducted using SPSS version 21. Cronbach's alpha obtained with the present sample was well above 0.7. Appropriate correlations with theoretically linked constructs demonstrated criterion and concurrent validity. Methods used to analyze data were general linear model and multiple linear regression. Hierarchical multiple regression was used to analyze the effects of the moderating variable of gender. It was found that fear of failure was a significant predictor of perceived performance ( $p=0.025$ ) whereas the hope of success was not a significant predictor ( $p>0.05$ ). When considering the overall impact of achievement motivation on performance, the results revealed that achievement motivation impacts performance ( $p<0.05$ ). Based on moderation interaction results obtained through the hierarchical multiple regression method, it was revealed that gender does not moderate the relationship between achievement motivation and perceived performance ( $p<0.05$ ). The findings of the study may influence researchers to engage in further research and also will be helpful for coaches to focus on players' motivational goals to gain and generate higher performance.

**Keywords:** Achievement Motivation, Performance, Hope of Success, Fear of Failure, Gender

## 1. INTRODUCTION

Sports can be defined as an activity involving physical exertion and skill in which an individual or team competes against another or others for entertainment (Oxford\_University\_Press, 2012) There are four prominent facets of sports namely, Traditional sports, Competitive Sports, Team Sports, and Individuals Sports (Perera, Jusoh, Azam, & Sudasinghe, 2019; Perera, Jusoh, Azam, & Sudasinghe, 2019). Team sports can be defined as sports in which teams play against each other, or as a group of people who play a particular game or sport against another group of people (Oxford\_University\_Press, 2012). Examples of some Team sports are cricket, Football, Baseball, Hockey, Basketball, etc. Polo is probably the oldest team sport in the world. Accordingly, individual sports are defined as sports, that are accompanied by two opposing individuals or one individual. Examples of individuals sports are Tennis, Javelin, Shotput, pole vault, High Hurdles, Decathlon, High Jump, Triple Jump, Long Jump, Golf, Boxing, Swimming, Gymnastics, Table Tennis, etc.

When considering the sports performance of Sri Lanka, it is counted to be very low in an international context. This can be furthermore proven from the Olympic games and Asian games medal table.

Psychology is the scientific study of the behavior of individuals and their mental processes and is often defined "as the science of mind and behavior" (Zimbardo, 1992). Several authors have added their voices to the definition and meaning of psychology. Van.Raalte and Brewer (2014), opined that psychology is the study of nature, functions, and phenomena and mental experience. Coaches and athletes have a better knowledge of psychology it will help to develop relationships and communication skills between coach and athlete (Gould, 1987). Sports psychology is the application of psychological principles and ideas to sports situations. Wuest and Bucher (2006) asserts that sport and exercise psychology is a systematic scholarly study of the behaviors, feelings, and thoughts of people engage in sports, exercise, and physical activity. Sports psychology is a branch of sport Science and psychology applied to sportsmen and women in athletic situations. The discipline of sport psychology is associated with attempts to study individuals in a sport situation. Wuest and Bucher (2006) furthermore, posited that sport psychologists today work with both males and females.

The Latin route of motivation means 'to move' and fundamentally, motivation psychologists study what moves people to act and why people think and do what they do (Weine, 1992). Motivation is an essential element of human personality. It directs a person's activity and makes it less dynamic without the desire to succeed in other psychological features and abilities do not provide nearly so much influence in performance. Motivation plays an important role in competitive sports, and the achievement motive seems to be especially relevant for athletic peak performance.

Achievement Motivation is a concept delineated to explanation of individual differences in Achievement and success in various contexts which includes schools, sport or work environment (Kanfer, 1990). It also used to explain motivated behavior, which is the reason why researchers have focused on studying various aspects and applications of this construct.

The importance of achievement-motivation in professional life is indisputable, particularly in those professions where individuals are not obliged to direct their activities toward achievement as a final goal (Schuler, Thornton, Frintrup, & Mueller-Hanson, 2004). More to the point, important of achievement motivation is greater in achieving high professional success in sports activities.

## 2. Methods

The population is of the study consisted of top rated 100 male table tennis players and 100 female table tennis players in Sri Lanka as per the records of Table Tennis Association of Sri Lanka as per the year 2019/2020. Data were collected from 55 participants using purposive sampling technique.

Questionnaire was used to collect data from the players to measure the achievement goal orientation and performance of the table tennis players. Additionally, the information pertaining in publications of the table tennis association and discussions held with the players and officials were also used as critical information sources for the modification of the questionnaire. Likert scale questioner was hence developed to achieve the aims of the study. A pilot survey was conducted to ascertain the reliability of the questions. Cronbach's alpha which is considered as a reliability core efficient was performed to identify the internal consistency of the study. Cronbach's alpha figure for all the constructs were well above 0.7 which is considered as a good indicator of validity (Cronbach, 1951; Nunnally & Bernstein, 1994).

## Results and Discussion

55 valid questioners were analyzed and out of 55 respondents 32.7% (18) were male and 67.3% (37) were female. The Average age of the respondent was 22.18 with a standard deviation of 3. There are nine provinces in Sri Lanka. The study sample won from different provinces & two results are shown below. Team players were from different provinces where the majority of them where from southern province amount into 27.2% (15) minimum number was recorded from Uva 1.8% (1).

Before further analysis of data VIF (Variance Inflation Factor) values were calculated and VIF is normally utilized to measure the impact of Multicollinearity.

Coefficients								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIP
1	(Constant)	3.165	1.033		3.064	0.003		
	MEAN_B	-0.354	0.153	-0.358	-2.307	0.025	0.497	2.011
	MEAN_A	0.361	0.184	0.304	1.959	0.055	0.497	2.011

a. Dependent Variable: MEAN\_PERFORMANCE

Table 1: Results of the coefficients with VIF Values

Source: - Survey Data, 2019

Denis (2011), mentioned that if VIF for one of the variables is around or greater than 05 there is multicollinearity associated with the variable. Therefore based on tolerance and VIF factor it is assumed that the assumption of normality is met Since VIF values are below 05.

Model Summary					
Model	R	R Square	Adjusted R Square	Std. The error of the Estimate	Durbin-Watson
1	.613 <sup>a</sup>	0.376	.352	.42811	1.601

a. Predictors: (Constant), MEAN\_A, MEAN\_B

b. Dependent Variable: MEAN\_PE

Table 2: Model Summary

Source: - Survey Data, 2019

The R square value is .376 which means 37.6 percent of the variations in perceived performance can be explained by achievement motivation. Even though R2 is less, the Durbin Watson value is 1.6.

ANOVA						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.738	2	2.869	15.653	.000 <sup>b</sup>
	Residual	9.531	52	0.183		
	Total	15.268	54			
a. Dependent Variable: MEAN_PE						
b. Predictors: (Constant), MEAN_A, MEAN_B						

Table 3: ANOVA Table

Source: - Survey Data, 2019

The p-value from the ANOVA table is less than 0.001 which means that achievement motivation is impacting perceived performance.

Therefore the regression equation is,

**Perceived Performance = 3.165 – 0.354 (Fear of Fail) + 0.361 (Hope of Success).**

**Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	3.165	1.033		3.064	.003
1 MEAN_B	-.354	.153	-.358	-2.307	.025
MEAN_A	.361	.184	.304	1.959	.055

Dependent Variable: MEAN\_PE

Table 4: Coefficient.

Source: - Survey Data 2019.

The p-value of Fear of Failure is point 0.025 which is less than 0.05 Hence, Fear of Failure is considered as a significant predictor of perceived performance. The p-value of hope of success is 0.055 which is more than 0.05. Thus the hope of success is not a significant predictor of perceived performance.

The moderation impact of gender was analyzed and is delineated in table 05. To serve this purpose, Hierarchal multiple regression was used to affix the effects of gender on the relationship between achievement motivation and perceived performance.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	2.893	1.051	2.753	.008	
	AM-HS	-.378	.154	-.383	-2.458	.017
	AM-FF	.378	.184	.319	2.058	.045
	Gender -AM	.050	.041	.140	1.241	.220

a. Dependent Variable: Perceived performance.

Table 5: Analysis of whether gender moderates the relationship between Achievement motivation (AM) and performance (PP).

Since the p-value for the moderation interaction is >0.05, gender does not moderate the relationship between AM and PP.

#### 4. Conclusion

The study aims to assess the relationship between Achievement Motivation and Perceived performance. Data were collected using questioner method from 55 athletes. One of the sub-objectives was to see whether gender moderate the relationship between achievement Motivation and perceived performance. A comprehensive literature review was carried out and hypotheses were developed based on the literature review. There is a lack of literature in this regard in the Sri Lankan context. Therefore this research could be considered as timely research.

According to the Statistical findings of the study relating to hope of success and perceived performance reveals that the p-value is greater than  $> 0.05$ , hence can be concluded that the hope of success does not have any impact on a player's performance.

Statistical Data Analysis shows that the p-value pertaining to failure and perceived performance is less than 0.05, hence it can be concluded that fear of failure has an impact on perceived performance.

Researchers have studied whether these gender differences in motivation can predict gender differences in achievement Motivation. Since the P-value for the moderation interaction is greater than 0.05, gender does not moderate the relationship between Achievement Motivation and perceived performance.

The present study was conducted using a sample of 55 table tennis players and it was suggested to extend the present study to a wider sample. Selection of well-defined age categories may result in paving the ground for a wider comparison and future researchers are advised to focus on stipulated factors.

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