

Dimensions of Coach Work Passion and Sportsman Performance: An Empirical Study on Psychological Attributes of Athletes in China

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Abstract:

In recent years, the value of sports and other physical activities has increased considerably and the role of the coaches of sportsmen is essential in providing trainings to sportsmen to help them achieve their objectives and improve their performance. The purpose of this study is to understand the passion of sports coaches for their China with the aim of knowing which type of passions yield good performance among sportsmen. For this reason, the study seeks to study the Coaches' work passion in which harmonious and obsessive work passion was included, and to see its impact on performance of the sportsmen with mediating role of psychological empowerment. To achieve the objectives of this study, quantitative study was carried out in which questionnaires were filled out by respondents including coaches, trainers and sportsmen. After analyzing the questionnaires, it was revealed that there is significant and positive impact of harmonious work passion on the performance of the sportsmen, while in the case of obsessive work passion, the results showed that there is significant and a negative relation of obsessive work passion with the performance of sportsmen. This study contains both theoretical and practical insights that can help stakeholders in the sports sector determine how desired results (in terms of performance) can be obtained from the coaches' work passion.

Keywords: harmonious work passion, obsessive work passion, sportsmen performance, sports sector.

Introduction

In recent years, there has been a greater appreciation of the benefits of and other physical activities with an increasingly significant role played by coaches in providing trainings to sportsmen to help them achieve their objectives and demonstrate enhanced performance. The context of the current study revolves around the sports sector of China and it will be interesting to study the aforementioned phenomena in this particular context for a number of reasons. Astakhova et al. (2016) stated that in this era, every organization needs to recruit passionate workers, who lead their task in an effective manner as well as to fire those workers who exhibit no passion towards their task(s). Passion has increasingly become a fundamental trait of an employee for exemplary performance. The entity bodies are looking to find passionate employees who have the work passion toward their jobs. According to Sandberg (2015), passionate employees are considered as an example for their parallel workers in the organization. The concept of passion has a renaissance in the discipline of psychology by Robert

Vallerand and colleagues (2013). Work passion can be defined as “a strong inclination toward a self-defining activity that people love, find important, and for which they invest time and energy” (Vallerand et al., 2013). The researchers introduced their ‘dual model of passion’ and the corresponding passion scale in 2013. The model, which distinguishes between independent internalization as harmonious passion and controlled internalization as obsessive passion, has motivated many empirical studies on the nature, predictors, correlates, and outcomes of the two types of passion. According to Vallerand et al. (2003) “passion can boost motivation, enhance well-being, and provide meaning in everyday life”. However, researchers have also pointed out that passion can “arouse negative emotions that lead to inflexible persistence, and interfere with achieving successful life”. HP has been associated with a range of beneficial outcomes and performance of a person. Harmonious passion develops in an individual when they freely accept that a given focal activity confirms that they have highly organized identities.

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Therefore, the activity will be followed by a feeling of personal validation (Shukla, 2017). In this case, engagement in passionate activities in a talented way is tested as an ending result because it is an independent type of mirror of activity with harmonious passion thought of as creating mask targets. Thus, an adaptive successful process is to focus on work-based goals that is encouraged by a compatible passion (Burke, Astakhova, & Hang, 2015). Whereas, on the other hand, Obsessive Passion (OP) refers to an internal pressure that forces the individual to work with OP; in this case too, the person also loves their work and considers it to be a part of her/his identity, but they also feel compelled to engage themselves because of internal contingencies that become unfavorable while doing their activity (Bergeron, 2018). OP is associated with activity in actions (for example, a new project activity), or personal compressions, such as self-esteem or to create feelings for social acceptance or utility. This pressure compels one to continue with an activity to maintain themselves individually (as important as the result). Due to these controls, and integration, self-determination, neutral emotional people will participate in the activity, which has a smaller amount of sense of self-esteem, who will agree on the success of the focal activity. OP will cause them to do more active self-diagnosis or examine their activities according to social perspective. Contextual performance includes activities such as helping others; (Sandberg, 2015), the father of intelligence research, was the first to suggest that individual intelligence was reflected in academic performance outcomes. As academic performance was thought to reflect individual differences in ability, it became “the criterion par excellence” for intelligence tests. Although, sportsmen’s performance is a widely studied topic in literature, only a limited number of studies are found which relate the same with coach’s passion (Burke et al., 2015). Nevertheless, it is a crucial area to investigate it, and the same has been done in the context of China in the present study.

Despite the the breadth of literature on sports-related behaviours, researchers have not been able to present an ideological framework for work passion of sports coaches and the its impact on the performance of individual sportsmen. The professional phenomenon in the popular and exclusive press is described in the literature (Schellenberg & Bailis, 2017). Depending on existing evidence about the process of conducting research on the passion in any given institution, it is not yet scientifically proven that emotional credibility is well-equipped. Research

scholars have been investigating passion and it is considered as passionate results, without the obvious explanation of the path that passes towards these results (Bergqvist & Eriksson, 2015). Promotional and seriousness, such as business research investigations, solid ideological links are missing for major and built-in structures. Although scholars have started promoting the concept of emotional effects, they have not explained how passion helps in identifying and encouraging coach’s passion. Of course, this study considers it the right time = to have passionate emotions about these research projects. If this study seeks to accept passion as a major enthusiastic force in sports sector, with important effects on emotions, then it must have meaningful insights about specific ways in which passion is emotionally motivated and effectively communicated.

The main aim of this study is to examine if there is any significant association between coach’s work passion and sportsmen’s performance in the sports sector of China. In order to achieve this aim, the study has identified the following as its key objectives: To investigate the effect of harmonious passion of coach on sportsmen’s performance in China

- To analyze the effect of obsessive passion of coach on sportsmen’s performance in China
- To examine the mediating effect of psychological empowerment between work passion of coach on sportsmen’s performance in China

The findings of the study are helpful for the sports sector in China and for similar sectors. On the basis of the current study’s results, people are able to recognize the importance of work passion. Work passion is the ability of an individual to performing his or her work with dedication. This study provides guidelines and findings for the sports sector of China. Current research indicates how coaches can enhance the sportsmen productivity by working with passion. This study will also test the effect of harmonious passion on sportsmen’s performance. This study will also give some guidelines for that sector to play a major role in establishing a friendly zone for the community. Furthermore, the findings of the study can be implemented in another parallel sector(s) for enjoying the benefits of work passion for better performance (de la Haye, 2018). For example, the findings of the study can be implemented in the services sector because they are also concerned with an an individual daily duties for maximization of their profitability. Additionally, the findings of the study will be beneficial for the entire economy of China (Smith, 2016). The current study

has several possible benefits which can be gauged in different aspects such as company professionals, market professionals, the general public and research scholars. The first benefit of the study is for those persons who are directly connected with sports sector e.g. coaches, sportsmen, physical fitness trainers etc. They can understand the importance of passion in their life (Araya, 2017). The second benefit of the study is for those who are involved in other sectors such as bankers, service providers, etc. who may be able to better understand the work passion in their daily routine task. The third positive implication of the study is to provide an informed perspective to members of the general public about the importance of passion in professional settings, propounding the need to understand the importance of psychological empowerment in daily lives. Lastly, for scholars and researchers, there is an opportunity to build upon the insights & findings of this study in sports or other sectors (Furnham, 2016). Furthermore, scholars and future researchers may also fill the gaps which are identified in this research study to more meaningfully contribute to literature in the area of psychology and management sciences.

Literature Review and Hypothesis Development

Theoretical development in the sports sector looks like a powerful positive force that promotes hard work, tolerance, patience, and high achievements. This approach was weakened by Cardoons et al., (2016) by appreciating passion as a positive emotional state. Some of the subsequent experimental studies adopted this concept and focused on the positive results of business passion. As a result, it was encouraged to promote professional intentions, processes, learning objectives and creativity (Sayyed and Mueller, 2015), to increase the strengths of the sportsmen. The ideological concepts and experimental results analysed in this study can offer benefits for a coach to help him or her achieve positive results for the sportsman.

Impact of Work Passion on Performance

As mentioned above, this section relates to the coach's passion of coaching, their love with work is observed and their passion is not just a careful interest. However, in this case, the activity has been defined externally for coaches as well as the sportsmen. In the last decade, Weller and his affiliate research group focuses on various activities and experimental articles for various happenings to focus on. As passionate goals, they also

perform activities, such as games, music, and hobbies, but they engage in work also. The Gauge (1951) suggests that businesses need strong power and stability; the first advertising study, which has mentioned his passion, provides an effective source of challenges in business acquisition. The initial studies of passion in sports sector looked at it as an individual trait, focusing less on the precise objects that passion is projected on. Thereafter, passion was theorized as one important element of the coach's individual personalities, mirroring love, affective attachment to, and longing for work. Even if these scholars looked at passion as a personality trait, these early efforts to delineate passion have a shared focus on affection, and specifically positive affection of "love" for work. When the coach's passion is observed, it ultimately affects the sportsmen's performance. If the coaches are cooperative and passionate toward their goals, their achievement is that they have influenced sportsmen positively (Anagnostopoulos, Winand, & Papadimitriou, 2016; Anderson, 2012; Astakhova & Porter, 2015; Birkeland & Buch, 2015; Birkeland & Nerstad, 2016; Breugst, Domurath, Patzelt, & Klaukien, 2012). Coach's work passion is a key to making sportsmen more hardworking and passionate. Similarly, a coach with the same attitude on a daily basis loses his supremacy on the sportsmen (Burke et al., 2015; Caudroit, Boiche, Stephan, Le Scanff, & Trouilloud, 2011; Chamarro et al., 2015). However, in the literature, only a few studies particularly investigate the impact of coach passion on sportsmen performance. For this reason, this study seeks to assess the empirical impact of coach's passion, including harmonious passion and obsessive passion, on sportsmen's actual and perceived performance in sports. Moreover, this study also examines this effect through the psychological empowerment standpoint.

H1: There is a significant relationship between coach's harmonious passion and sportsmen performance.

H2: There is a significant relationship between coach's obsessive passion and sportsmen performance.

Mediating Role of Psychological Empowerment between Work Passion and Performance

As mentioned earlier, although job resources and personal resources have been shown to predict coach's engagement, little research attention has been paid to the examination of the potential mechanisms underlying these relationships. In this study, psychological empowerment is proposed to be a mechanism that explains the relationship between

coach's passion and sportsmen's performance. Thomas and Velthouse (2009) defined "psychological empowerment as intrinsic motivation manifested in four cognitions: meaning, competence, self-determination, and impact. In other words, when employees are psychologically empowered, they are creating an internal sense of motivation based on their cognitions regarding their work". The ability to work competently is uniquely confident. Self-determination, which is also known as 'selection', indicates a person's motivation to adopt and maintenance of his or her actions (Donahue et al., 2012; Fernet, Lavigne, Vallerand, & Austin, 2014). The main targets, customs, principles and codes of coaching career competently form the approach of sportsmen and their transformation in accordance with the principles of the sports-related activities. The effects, sometimes referred to as the importance of work, indicate that the extent of an individual's work can influence the institutional level or change results. It has been argued that the supervisor's support, development opportunities, and basic mindset are related to psychological empowerment. For example, a supervisor can be used to help and enhance their ability to do work. In addition, if people are given opportunities for development, they can feel their views about them, their ability to recognize, and enhance self-determination. Similarly, on their own basic diagnosis, they believe in their capabilities to perform their work. Relying on previous research studies, the current study can be seen as an important tool. Job design features include job enhancement and job feedback. For example, positive auto-complete symptoms include basic self-diagnosis, and usually also, self-estimation. Based on these results, it is reasonable that the support of supervisors, development opportunities, and basic self-diagnosis are also positively associated with psychological empowerment. When an individual insists internally (i.e., psychologically infective), he feels his work is easily absorbed and emerging for him, which is why he

is busy in his work. In addition, an amazingly small amount of research has been released which indicate that the autonomous power of a coach positively influenced on sportsmen's performance (Huyghe, Knockaert, & Obschonka, 2016; Jachimowicz, To, Menges, & Akinola, 2017; Kerr, 2016; Kong, 2016; Lavigne, Forest, & Crevier-Braud, 2012). However, Bhatangar (2012) found that these two variables like psychological empowerment was an offer for work and power is an ability to be contributed to the relationship between sportsmen's engagement and coach's passion. In psychological terms, with the intention of innovation and change the author tests if psychologically qualified people are more employed. Modern and low institutions were intended because they were busy in their work. There is a positive and significant connection between the results of this study vis-à-vis psychological empowerment and sportsmen's engagement. Although the study has not used psychological empowerment as a mediating variable, it is based on these results that psychological empowerment plays a vital role for involvement in their work. However, studies further found that management plays a negative role in this model (Richardson, Abraham, & Bond, 2012; Stander & Rothmann, 2010; Vallerand, 2012). On the basis of the above discussion, this study used psychological empowerment as a mediator between coach's work passion and sportsmen's performance.

H3: Psychological empowerment significantly mediates the coach's work passion and sportsmen's performance

Proposed Research Model

The following research model (Figure 1) has been proposed in the light of the literature on coach's work passion and its impact on sportsmen's performance with the mediating role of psychological empowerment.

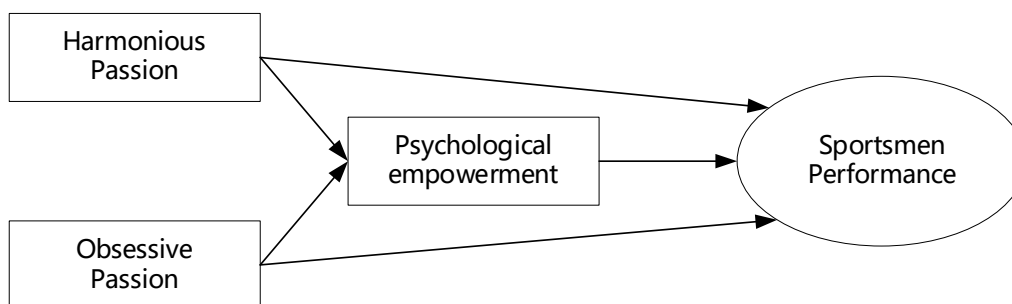


Figure 1: Research Model

Research Methodology

Study population

The word “population” in research studies refers to those things or persons who are participating in the study (Etikan, Musa, & Alkassim, 2016). This study followed a quantitative approach (Hoy & Adams, 2015) when designing the overall research methodology (Ruiz-Alfonso & León, 2016). The population for this study includes all those persons who are associated with the sports sector of China. These respondents include coaches, trainers, sportsmen etc. in China. The required respondents were contacted through personal meetings as well as some respondents who were contacted via phone calls/e-mail and asked to fill the survey questionnaire online. Respondents were guaranteed that their responses will be kept confidential and will not be misused.

Sampling Method and Technique

Samples allow for selection from a given study population to acquire information about a particular problem. There are different sampling techniques available for selection of sample such as online sample calculators, sample tables, etc. In this study the purposive sample is used to collect data for this research, purposive sampling is an appropriate way to collect data in this type of studies where the population is infinite (Etikan et al., 2016). Sammons, Lindorff, Ortega, and Kington (2016) have also performed purposive sampling on their research study on coach's passion. The researcher has identified a sample of 200

respondents for this study who are sports' coaches in the sports sector of China.

Data Procedure

There are two types of data, primary data, and secondary data. Primary data refers to the data which is collected first hand and is no statistical or mathematical application is applied (Kitchin, 2014). Secondary data refers to the data which is collected by others or published and already processed in mathematical or statistical applications (Kitchin, 2014). This study is quantitative in nature and the strategy of study is to administer a questionnaire-based survey for data collection. In order to obtain the requisite data from the sample selected, a self-administrative research questionnaire was compiled and filled by the respondents. The questionnaire is adapted from the literature which is used for data collection and respondents are targeting via emails and personal meetings.

Measures

The questionnaire for this study is adapted from prior studies. The researcher after extracting the questionnaire from literature studies, made some changes to account for context. For instance, the researcher converts scale of five-point Likert scale into the form of “strongly agree to strongly disagree”. To measure the passion scale, fifteen items are taken from the study of Anderson (2012) and converted in terms of the five-point Likert scale. This scale is already used in existing literature and has shown excellent factor loading in the past.

Table 1

Scale of Work Passion

Variable	Items	Adapted from
Work Passion	“I am emotionally dependent on my work. The urge is so strong. I can't help myself from doing my work. I have difficulty imagining my life without my work. I cannot live without my work. I have a tough time controlling my need to do my work. I have almost an obsessive feeling for my work. My mood depends on me being able to do my work. My work allows me to live a variety of experiences. The new things that I discover with my work allow me to appreciate it even more. My work allows me to live memorable experiences. I have difficulties controlling my urge to do my work. My work is in harmony with the other activities in my life. For me it is a passion that I still manage to control. I am completely taken with my work. My work is a passion for me.”	Anderson (2012)

For the measurement of psychological empowerment, the scale of Wallace, Johnson, Mathe, and Paul (2011) study is used and this scale is already used in many other studies and demonstrably good factor loading.

Table 2*Psychological empowerment*

Variable	Items	Adapted from
Psychological empowerment	“I have the power to make a difference in how things are done in my coaching. I have a choice in the methods I can use to perform my work. My participation is important to the success of the sportsmen I have freedom to choose among options under my coaching. I can make an impact on the way things are run under my coaching. Alternative approaches to learning are encouraged in my coaching I have the opportunity to contribute to the learning of others in my coaching. I have the opportunity to make important decisions in my coaching. I cannot influence what happens in my coaching. I have the power to create a supportive learning environment in my coaching. My contribution makes no difference. I can determine how tasks can be performed. I make a difference in the learning that goes on in my coaching. I have no freedom to choose. I can influence the instructor. I feel appreciated in this class The tasks required in my class are personally meaningful.”	Wallace et al. (2011)

The 2 items scale of Adhatrao, Gaykar, Dhawan, Jha, and Honrao (2013) used for the measurement of sportsmen performance, the sample item is “I can manage my work effectively”.

Data Analysis of the Study

There are many statistical packages are available in the market for data analysis. But this study used well-known and modern software, SPSS for analysis. Every software has its own unique strength and weakness, but the rationale behind using these two is their acceptability and features (Tabachnick & Fidell, 2007). Initial analysis such as outliers, missing values and normality tests performed by SPSS v20 and main analysis such as correlation, regression, and mediation are also performed by SPSS v20. The reason behind using SPSS for the main analysis is that it is very suitable for testing the relationship between more than one independent and dependent variables at the same time. Furthermore, it has all the necessary features which are required to get desired results (Hair & Tatham, 2006; Kline, 2005; Tabachnick & Fidell, 2007).

Data Analysis and Results**Demographic Profile**

Approximately 300 questionnaires were distributed through personal meetings with the coaches and sportsmen engaged in the sports sector of China. 290 questionnaires are received back in start and 288 are received at the end; 280 for both times are usable. The final set of 560 questionnaires is useable for final analyses. There were a total of 64 female coaches and 217 male coaches, who participated in this study. The ratio of male coaches is 77.1 per cent and female's coaches are 22.9 per cent. Findings stated that there are 104 coaches, who are falling in the range of age from 21 years to 30 years, 67 coaches lie in the age from 31 to 40 years, 37 coaches belong to age group 41 to 50 years with the remaining being 50 years of age or above. Results indicated that a majority of the respondents i.e. 213 of the total 280 respondents are M.Phil. degree holders. In addition, 67 were PhD degree holders and accounted for 23.9% of all 280 respondents.

Reliability

Cronbach alpha (α) is “calculated for checking the reliability of the data. The value of Cronbach alpha should be equivalent to 0.7 or greater than 0.7, in other words, we can say the threshold value of Cronbach

alpha is $\alpha \geq 0.7$ ((Cronbach (1951)). As for as the value of Cronbach alpha of this data is concerned with all variables, which is greater than 0.7 and this proves the reliability of the data.” All the values of Cronbach alpha are arranged in the following table 3:

Table 3: Cronbach Alpha

Latent Variables	No of items	Cronbach alpha	Items Removed	Revised Cronbach alpha
HP	8	0.974	0	0.974
OP	7	0.824	0	0.824
PE	17	0.887	0	0.887
AP	2	0.887	0	0.887

The value of Cronbach alpha of all the variables is arranged in table 3 which shows that these values of all variables are in good range. As these values are greater than 0.7 that proved that the reliability of the whole data is excellent. The value of Cronbach alpha shows the understating of respondents about questionnaire items and that item goodness to measure the entire construct. Table 4.3 shows the first variable which is HP has 8 items and the overall value of Cronbach alpha is 0.974 which is good. Similarly, the second variable OP has 7 items and the value of Cronbach alpha is 0.824 which is good to measure the whole contract. The Cronbach alpha value for PE is 0.887 and it has 17 items. Correspondingly, the next variable of the study which is AP has 2 items and the overall value of Cronbach alpha is 0.887 for this construct. So, there is no need to remove any item from any variable because the factor loading of each item is greater than 0.60, that's why there is no need to remove any item.

Consequently, the measurement for the entire model is a good fit and results based on can be realized.

Normality

Skewness is defined as the explanation of equilibrium in data. If the data is the same as the left to right from its center that is known as symmetric data. Kurtosis shows the normal distribution through peak and flat graph. Data which shows a high peak which means that kurtosis is high in it as well as low kurtosis in a data shows flat top in the graph. For a normal distribution skewness must be zero, any symmetric data shows the zero value of skewness. If the data is skewed left, it means values are negative and if the data is skewed towards the right, it shows that the values are positive. Normality test is checked by using graphical and statistical methods. Skewness value ranges from “+1 to -1”. Kurtosis value ranges from “+3 to -3”.

Table 4:*Normality*

	Skewness		Kurtosis	
	Before	After	Before	After
HP1	-.555	.559	-.544	-1.016
HP2	-.674	.567	-.302	-1.017
HP3	-.728	.566	-.311	-1.026
HP4	-.711	.582	-.415	-.976
HP5	-.723	.592	-.510	-.986
HP6	-.693	.566	-.581	-1.026
HP7	-.837	.582	-.169	-1.004
HP8	-.782	.610	-.278	-.933
OP1	-.299	-.126	.983	1.011
OP2	-.232	-.400	.744	.550
OP3	-.431	-.447	.572	.610

	Skewness		Kurtosis	
	Before	After	Before	After
OP4	-.151	-.244	-.504	-.492
OP5	-.217	-.246	.759	.778
OP6	-.365	-.400	.540	.550
OP7	-.621	-.621	-.603	-.603
PE1	-.756	-.666	-.404	-.883
PE2	-.783	-.645	-.417	-.911
PE3	-.718	-.620	-.559	-.948
PE4	-.820	-.704	-.307	-.801
PE5	-.665	-.599	-.582	-.902
PE6	-.703	-.668	-.484	-.837
PE7	-.664	-.651	-.678	-.886
PE8	-.607	-.626	-.683	-.898
PE9	-.676	-.604	-.632	-.941
PE10	-.762	-.634	-.377	-.929
PE11	-.659	-.538	-.647	-1.046
PE12	-.677	-.603	-.539	-.962
PE13	-.807	-.662	-.407	-.896
PE14	-.742	-.660	-.433	-.873
PE15	-.778	-.667	-.463	-.887
PE16	-.728	-.599	-.463	-.942
PE17	-.750	-.566	-.560	-1.091
PP1 (AP1)	-.406	.553	.486	-1.090
PP2 (AP2)	-.914	.592	-.929	-.995

The results of the overall table indicated that the value of skewness and kurtosis is under the range of +1 to -1 and +3 to -3 respectively. The value of each item under the limit of and threshold value of skewness and kurtosis shows that the overall data of this study is reliable, and the researcher can further conduct analysis in order to answer the research questions proposed in this study.

Discriminant and Convergent Validity

Discriminant validity is the degree in which the variable is in fact differing from each other

experimentally. It examines the extent of differences among the overlaid variables (Kim & Kim, 2010). It is measured by employing cross-loading of measures. By viewing at the cross-loading, the factor loading pointers on the allotted variable have to be greater than all loading of other variables with a state that the cut-off figure of factor loading is greater than 0.70 (Kim & Kim, 2010). On the other hand, convergent validity is the extent of assurance a researcher has that a characteristic is well-evaluated by its measures (Kim & Kim, 2010). It is measured by the Composite Reliability (CR) and Average Variance Extracted (AVE).

Table 5:

Discriminant and convergent validity at the start of Semester (N=280)

	CR	AVE	MSV	MaxR(H)	PsyE	Obses	Hamon	PPer
PsyE	0.957	0.577	0.334	0.970	0.760			
Obses	0.840	0.562	0.280	0.988	0.475	0.680		
Hamon	0.958	0.741	0.717	0.991	0.545	0.529	0.861	

	CR	AVE	MSV	MaxR(H)	PsyE	Obses	Hamon	PPer
PPer	0.965	0.932	0.717	0.993	0.578	0.511	0.847	0.966

Notes:**. Correlation is significant at the 0.01 level (2-tailed).

This validity shows that all the variables are discriminant from one another. The table above shows that all these constructs are entirely different from one another in terms of data and relation. The bold values depict the highest values and the proceeding values are lesser than the above one. A successful valuation of discriminant validity demonstrates that a test of these constructs is not extremely correlated with other tests intended to evaluate hypothetically diverse constructs. These results showed that the latent variable shared their variance and they are entirely diverse from one another. The table also shows the CR which is a test performed to measure the reliability, or internal consistency of the study variables. It offers a plain

mode to evaluate whether or not a test is reliable. It is utilized under the supposition that multiple items evaluate the similar basic variable. The value for CR varies from zero to one. A negative value signifies that something is incorrect with the data such as error in reverse score of few items. The common rule of thumb for CR is 0.70 and higher is satisfactory, .80 and higher is good and .90 and greater is best. Table 4 below shows that the values CR value for psychological empowerment, obsessive, harmonious, and perceived performance, are 0.957, 0.840, 0.968, and 0.965 respectively. This demonstrates that all these measures are reliable.

Table 6:

Discriminant and convergent validity at the End of Semester (N=280)

	CR	AVE	MSV	MaxR(H)	PsyE	Obses	Hamon	APer
PsyE	0.987	0.812	0.154	0.987	0.901			
Obses	0.839	0.560	0.193	0.993	0.393	0.679		
Hamon	0.968	0.791	0.371	0.998	-0.138	-0.383	0.890	
APer	0.887	0.797	0.371	0.998	-0.003	-0.439	0.609	0.893

Notes:**. Correlation is significant at the 0.01 level (2-tailed).

Table 6 above shows that the values for psychological empowerment, obsessive, harmonious, and perceived performance are 0.987, 0.839, 0.968, and 0.887, respectively; therefore, this reliability test permits the researcher to study the traits of evaluation scale and the items that build the scale.

Confirmatory Factor Analysis

The confirmatory factor analysis (CFA) is “a multivariate arithmetic process which is utilized in order to examine how good the studied constructs signify the figure of variables. In confirmatory factor analysis (CFA), researcher is able to identify the figure of aspects needed in the data and which studied construct is linked to which latent construct.”

Table 7: Nested Confirmatory Factor Analysis

	Model Fit Indices	Threshold Range	Observed Values At Start	Observed Values At End
Nested Model	χ^2		1351.556	1396.377
	Df		502	506
	χ^2 / df	Lesser than 3	2.692	2.276
	GFI	≤ .80	.801	.803
	IFI	≤ .90	.913	.940
	CFI	≤ .90	.913	.940
	AGFI	≤ .90	.919	.910
	RMR	≥ .08	.043	.049
	RMSEA	≥ .08	.078	.079

Notes: χ^2 = Chi Square; Df= Degree of freedom; CFI= Comparative Fit Index; RMSEA= Root Mean Square Error of Approximation

Nested confirmatory factor model was used in this study to measure the fitness of the research model. Findings in Table 5 below show that all indicators value lie within the threshold range, proving that model is suitable for further analysis.

Structural Equation Modeling

SEM is “a multivariate statistical analysis tool which is utilized in order to examine the structural associations between the variables (Blunch, 2012). This tool is basically the mixture of factor analysis and multiple regression analysis, and it is employed to examine the structural association between measured constructs and latent variables.”

Table 8 Structural Path coefficient

Casual Path			Standardized Coefficient	Unstandardized Coefficient	S.E.	C.R.	P
Psy_Emp	<---	Harmonious	.233	.214	.048	4.461	***
Psy_Emp	<---	Obsessives	.562	.860	.080	10.745	***
Per_Per	<---	Psy_Emp	.160	.136	.041	3.326	***
Per_Per	<---	Harmonious	.648	.505	.034	14.872	***
Per_Per	<---	Obsessives	.113	.147	.065	2.250	.024

Note: HP= Harmonious Passion, OP= Obsessive Passion, PE= Psychological Empowerment, PP= Perceived Performance

This test is chosen by the researcher as it approximates the multiple and interconnected reliance in a particular examination. Table 6 (see above)demonstrate the results of SEM for data which was collected and results indicated that harmonious passion has a significant positive impact on perceived performance by .648, and obsessive passion has a significant positive impact on perceived performance by .113. In other words, as the harmonious passion increases by one percent, it results in the increase in sportsmen performance by 64.8% and in the same way if the obsessive harmonious passion is increased by one percent, then the sportsmen performance will be increased by 11.3% significantly. The significant results are

based on the value of p, which is less than 0.05 in both cases. Other results reported in the table indicate that both harmonious and obsessive passion have significant impact on the mediating variable i.e. psychological empowerment. Moreover, the impact of psychological empowerment has also been found to be significant on perceived performance.

Mediating Role of Psychological empowerment

To check the direct and indirect effect of coach’s work passion on sportsmen performance, SEM was run by the researcher, and following results were obtained;

Table 9
Direct and Indirect effect

Work Passion	Direct Effects on Perceived Performance			Indirect Effects through psychological empowerment on Perceived Performance		
	Estimate	Lower	Upper	Estimate	Lower	Upper
Harmonious	0.010*	0.526	0.761	0.037**	0.010	0.073
Obsessive	0.113	-0.019	0.264	0.090**	0.040	0.141

Note: Bootstrap 2000 Resample Results, *significant at 0.10, **significant at 0.05 and BCCI: Bias-corrected Confidence Intervals

Above mentioned table shows that HP has .010 direct effect on perceived performance and OP has .113 direct effect on PP but this effect is insignificant. The table also demonstrates the mediation effect of psychological

empowerment between harmonious and obsessive passion and perceived performance with results indicating that psychological empowerment significantly mediates the relationship between harmonious passion and obsessive passion by .037 and

.090 respectively. Figure 2 below presents an overview of structural equation modeling while running in SEM and AMOS. The figure shows standardized regression weights between the variables for data.

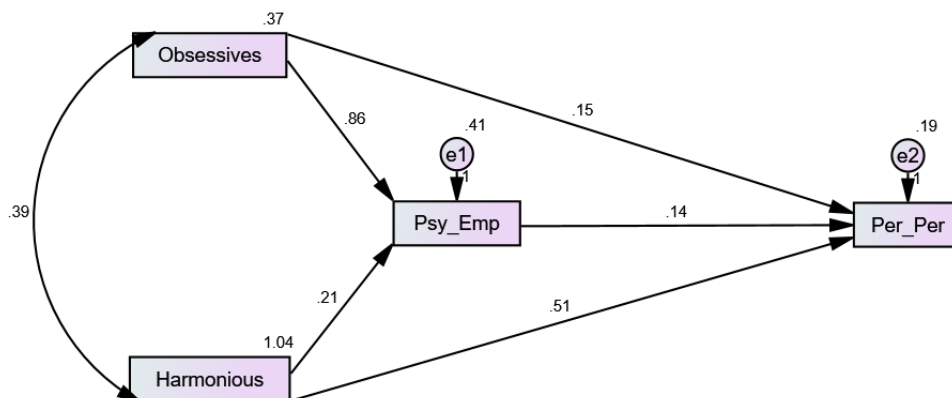


Figure 2: Structural Equation Modeling

Discussion and conclusion

Discussion

The results of this study were obtained after analyzing responses to questionnaires completed by coaches, trainers and sportsmen. First hypothesis of this study was accepted as it was proven that there is a significant and positive relation of harmonious work passion of coaches with performance of the sportsmen. These results were same and aligned with the results of previous authors that have studied this relationship, for example, studies of (Awaluddin, Salija, & Muhayyang, 2019; Moe, 2016; Naydanova & Beal, 2016; Ruiz-Alfonso & León, 2016; Saville, Bureau, Eckenrode, & Maley, 2018; Vallerand, 2016). The second hypothesis was also tested through analysis and the results indicated that the hypothesis is acceptable as there is a significant impact of obsessive work passion of coaches on performance of sportsmen; this result contradicted the results from some previous studies although it also corroborated with findings of some past studies (Cheasakul & Varma, 2016; Naydanova & Beal, 2016; Ruiz-Alfonso & León, 2016; Saville et al., 2018; Vallerand, 2016). These results can be explained in such a way that when the coaches coach and train the sportsmen under them with hard work and passion, this induces the motivation in sportsmen to work even harder, ultimately leading to enhanced performance among sportsmen. On the contrary, if the coaches do not put their utmost efforts into the training of the sportsmen, they will be failed to motivate the sportsmen who will not be able to perform to their level

best ultimately resulting in the deterioration of their performance. This hypothesis was also confirmed through this study and it was considered that there is a mediating effect of psychological empowerment between coach's work passion and sportsmen performance as it was shown that only when the coach possesses values of self-determination, competence etc., they will be able to create passion in their work and they will deliver better performances. For this reason, it is said that psychological empowerment creates a link in between coach's work passion and sportsmen performance and these results resonate with the findings from previous studies studying this relationship, for example, (Ai et al., 2017; Akram, Malik, Sarwar, Anwer, & Ahmad, 2015; Cheasakul & Varma, 2016; Flaherty, O'Dwyer, Mannix-McNamara, & Leahy, 2017; Van Nieuwerburgh, 2018).

Conclusion

This study was conducted in order to check the impact of work passion of coaches on the performance of sportsmen in the sports sector in China. For this purpose, data was collected from coaches, trainers and sportsmen who recorded their responses through a questionnaire. After analyzing the questionnaire, it was revealed that all hypotheses of this study were acceptable. It was observed that work passion of coaches has an observable impact on the performance of sportsmen. Coaches have usually two types of work passion that they showed towards sportsmen and that ultimately affect the performance of the sportsmen. First type of work passion was harmonious work passion in which entails a highly positive attitude of coaches towards sportsmen, treating them in a very

lenient manner. This study has proved that only work passion of coaches is not important for facilitating good performance of sportsmen but there is an additional more factor without which work passion of the coaches as well as the performance of the sportsmen cannot be achieved to any substantial. That factor is psychological empowerment that creates link between work passion of coaches and performance of the sportsmen. The factors which are associated with psychological empowerment are competence, self-determination and impact. If these factors of coaches are strong, their work passion will strengthen, motivating sportsmen to show good performance as all these factors motivate the coaches as well so that they can show positive passion towards their duty and it also depends on the coaches that how they deal with their level of psychological empowerment. Therefore, it can be concluded that psychological empowerment plays a mediating role between work passion of coaches and performance of sportsmen.

Implications

This study has positive theoretical and practical implications. Theoretically, this study has enhanced literature on the variables that are included in this study as well as on the relationships that were identified in this study as the literature focusing on such relationships was limited; therefore, it will be a beneficial contribution from an academic point of view where future researchers can gain insights into these

relationships before analyzing them further. From a practical point of view, this study can help stakeholders in the sports sector of China to determine what kind of work passion is suitable for them and can facilitate better performance of sportsmen. Sports sector can benefit from this study by developing as well as molding their coaches in accordance with the findings of the study in order to achieve improved levels of performance among sportsmen in the future.

Limitation and future suggestions

This research also has some limitations, for example, the number of questionnaires that were filled were limited. Therefore, future researchers should work with a larger sample size as well as studying the relationship between the same variables in the context of another country so that this relationship can be confirmed across country-contexts. As data has only been collected from the sports sector of China, therefore, it can only be generalized for this sector. The researchers need to consider other sectors of the country, especially the service-related sectors to explore the impact of passion of the leaders on the employees or subordinates' performance. In the same way, other counties and groups of countries need to be considered so that a broadly applicable spectrum of information can be obtained. In addition, other factors or determinants that are associated with the leaders or coaches need to be explored that might have an impact on the performance of their subordinates.

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