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Correlation study between triathlon development and participation: What makes a sustained development and participation of triathlon in Southern China?

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Abstract---Different factors condition sports development and participation. Existing research has shown that an individual's attitude toward sports involvement is mostly influenced by personal factors, although sports participation may also influence sports development. This study proposes to examine whether the Ideal-Type Model of Integrated High Performance and Mass Sports Development (ITM) and the classic model of planned behaviour (TPB) theory reinforces the development of triathlon and the main motives for people to participate in a triathlon. A model based on the traditional ITM and TPB models was presented. Three hundred six valid questionnaires were gathered online in southern China to create the sample. The data were encoded, cleansed, and analysed preliminarily using the Statistical Package for Social Science (SPSS). In addition, the suggested model and assumptions were verified and validated using the partial least squares structural equation modelling (PLS-SEM) method and Smart PLS 3.0 software. The proposed model presents a statistical validity that proves that 1) talent search and development, advanced athlete support, training centres, competition systems, intellectual services, partnership with supportive agencies, balanced and integrated funding, and mass and elite sport structures positively influence southern China's triathlon development. 2) the triathlon participation is significantly determined by the individual's previous behaviours, attitudes, subjective norms, and intentions.

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Introduction

A triathlon is an endurance multisport race consisting of swimming, cycling, and running over various distances (Garrett & Kirkendall, 2000). In contemporary Chinese society, triathlon development and participation have increased. This growth is not just attributable to the social atmosphere that this sporting event provides but also to personal aspects and characteristics (Jiang, 2016). Most research on sports development and participation has concentrated on sociology, psychology, and the implementation of different models, theories, behaviours, and motives; nevertheless, there have been significant advances in this sector. Sporting development and participation are already well described (Hopkinson et al., 2018; Lyle, 1991; Mummery & Wankel, 1999; Neipp et al., 2014; Smolianov et al., 2015).

In recent years, the tremendous economic growth of China has provided a strong platform for developing triathlon in southern China. First, southern China has a large population and a good mass base for swimming, bicycle, and long-distance running. There are many strong sports provinces in southern China, where mass sports and elite sports are among the best in the whole country. Secondly, the southern part of China has an ideal natural environment and many rivers, lakes, seas, and plains, which are very suitable for developing the triathlon. Using these demographic and geographical advantages to promote further the popularization of the mass triathlon and the level of the elite triathletes, then finally accelerating the triathlon in southern China, is a theoretical issue and a key issue in practice.

Further, the participation of athletes is also an essential factor in the development of sports events. Even though everyone's reasons for engaging in sports are unique, research shows some commonalities among the things that drive individuals to keep participating in sports (Gould et al., 1985). What motivates people to invest much time, energy, and money in the sport to participate in endurance events like triathlons is still unclear. Most people who participate in leisure activities do not physically, emotionally, or psychologically. However, triathlon is developing at an alarming rate in China, and the triathletes in China have strict training programs (Ogles & Masters, 2003).

Studies on sports development have focused on various sports events with the foundation of ITM (Carney et al., 2012; Zeeuw et al., 2017; Hopkinson et al., 2018; Smolianov & Bravo, 2014; Smolianov et al., 2020). For instance, regarding the development of Dutch swimming, it has been determined that stronger public and corporate assistance is required to develop and attract more coaches and solve the shortage of facilities, funding, and exposure at the level of mass involvement (Zeeuw et al., 2017). Regarding the development of US hockey, it has been determined that new partnerships and incentives should be created to increase support for mass and elite hockey., additional resources and designs should be made available for improved coach education and facilities, and

innovative lifelong hockey regulations should be established for the perfection of all participants (Smolianov et al., 2020).

Studies on sports participation using TPB have focused on identifying the motivations for involvement (Armitage, 2005; Bang & Lee, 2014; Behrens & Harbour, 2014; Blanchard et al., 2011; Cunningham & Kwon, 2003). For example, African American and Caucasian college students demonstrated a strong correlation between perceived behaviour control and intention. There was no association between subjective norm and intention for any ethnic group. Physical exercise is most strongly correlated with intention among Caucasian students (Blanchard et al., 2008). The subjective norm and perceived behaviour control are the most significant predictors of exercise intention and behaviour among older persons. Consequently, increasing attitudes toward an active lifestyle may not be essential to improving exercise program participation (Motalebi, 2014).

Few academics have attempted to combine unique analytical models or relationships. Nonetheless, the statistical validity of the influence of many variables on sports participation and growth has been shown (Cortés et al., 2017). However, as with several motivating factors, sports qualities are essential to the growth and engagement in sports (Baker & Horton, 2004; Petitpas et al., 2005). Further, there is a lack of information on the variables that have shaped its growth in southern China. It is concluded that studies on the triathlon's development status and organization management are not comprehensive or systematic; the research conducted in terms of development status and influencing factors of the triathlon in southern China is lacking (Center, 2015; Juan, 2014; Yi, 2012).

Concerning the China Triathlon Association, it is necessary to conduct research that explains what influences the development of Chinese triathlon and why some triathletes leave the sport, which is not solely based on external, sociocultural, or service quality factors, which have been the main topic of some research, particularly in the fitness and wellness services and sports marketing industries (Robbins & Madrigal, 2016). Therefore, the analysis of the correlation between triathlon development and participation motivations is complicated and needs close attention to the increasing trend of triathlon events and people's behaviour, primarily as a result of social change in terms of talent search, athlete support, competition system, attitude, intention, previous behaviour, the personalization of services, and other megatrends that do not adhere to conventional patterns of sports development and behaviour (Mośko et al., 2018; Schüler et al., 2014).

Theory of Global Type Ideal Model

The hierarchical structure of HP (High Performance) system development was reflected in a study of US Rugby (Carney et al., 2012). By incorporating applicable HP system principles and practices into the model's seven components, a systematic development method for rugby in America was established. By seeing the HP components as a system for increasing rugby participation, Carney et al. (2012) preserve macro, meso, and micro-level notions. De Bosscher et al. (2006) highlighted the variables contributing to good sports policy. According to Carney et al. (2012), the macro level is the entire society's and state's socioeconomic,

cultural, legislative, and organizational support for a national sports system. The meso level encompasses the infrastructures, personnel, and services that support sports programmes; the micro-level includes the operations, processes, and methodologies that support individual athlete development. Since the HP elements overlap at several levels (Bosscher et al., 2006), numbers are utilized to represent the size and hierarchical connection of the elements, as seen in Figure 1.

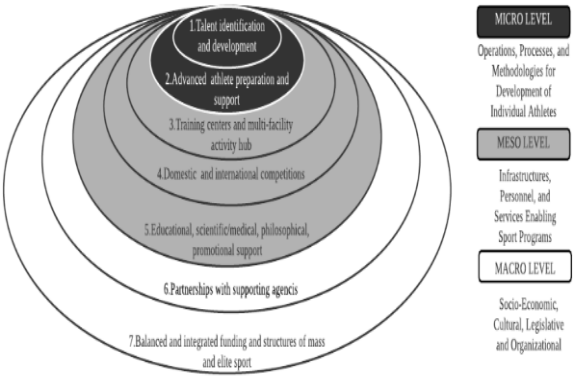

Figure 1. Ideal-Type Model of Integrated HP and Mass Sports Development (Carney et al., 2012)

Based on the micro-level elements 1 and 2, the success of the triathlon system attempts to identify talents and gradually foster participants to achieve excellence at all ages. Another critical condition at the micro-level is element 4, which includes organizing high-quality events at the club, local, national, and international levels and incorporating business competitions into a holistic tournament plan that enables athletes to compete in their best condition possible. Element 5 shows that education, science/medical, philosophical, and advocacy support contribute to the success of international competitive sports and the participation of national people at every level. All sports professionals, particularly trainers, should have access to education, qualification, expertise, and other support structures through specialized routes.

Meso-level services are derived from a variety of factors (element 6), which provide abundant resources and sports expert knowledge for completing critical and complex tasks in the sports context, including the amount and quality of media coverage; sponsorship; a nation's traditional sports; the sport's social status; and the innovation of global sports. In these realms, national policies can establish a synthetical sports service system to meet the form and properties of the correlative system organization. Based on element 7, to make all these factors play a long-term cooperative role, the structural system of capital and mass sports and the high-level competitive sports system must be balanced and integrated, which will involve the rationalization of investment legislation, ideology, and the jurisdiction of the government sports system. A successful sports system needs a) Social support at the macro level, coordinating elite and mass sports funding sources. b) Large-scale, high-quality projects and facilities jointly developed by government agencies, the National Olympic Committee (NOC), National Governing Body (NGB), and clubs. c) Balance the power of the

government, NGB, training centres, clubs, and communities. d) Incorporating Preschool facilities, elementary and middle schools, universities, and colleges, physical activity focuses on the degree to which exercise and sport encourage. e) The hierarchical pyramid system of sports clubs and schools aims to maximize participation and achieve excellent development at each level of participation. f) Incentive mechanism for participants and coaches who contribute to mass fitness and high-level competitive sports. g) Athletes of all levels, clubs, regions, ages, and genders are equipped with many professionally qualified full-time coaches. h) Subsidies and incentives should be provided for mass sports and high-level competitive sports, and training & competition funds should be provided for participants of all age groups to ensure the diversity and availability of sports (Carney et al., 2012).

Suppose HP sports and leisure sports are combined at these development points. In that case, the goals of supporting organizations can be effectively achieved, including business objectives, physical health objectives, social capital objectives, community development objectives, competition performance objectives, and national identity & pride objectives. Around the world, competitive sports and mass sports have been identified as different and polarized areas, which are usually developed under the overall planning of the Ministry of Sports and other organizations. According to Bosscher et al. (2006), governments of developed and developing countries usually support various sports activities by establishing institutions, formulating policies, and allocating resources. However, the world is now confronting the challenge of launching a sports system so that more excellent athletes can be successfully excavated from the grass-roots to the national team.

The theoretical model of ITM is founded on the theory drawn by Arbena et al. (2002), Bosscher et al. (2006), Platonov (2010), Smolianov et al. (2008), and Carney et al. (2012) that a high-level hierarchy system is usually based on the broad participation of the masses in sports. Therefore, discovering talented and potential athletes among the participants can reach the peak of HP sports. The ideal-type model enables comparisons to pre-existing chronological HP. It also allows the researchers to draw on the potential power of China's future triathlon from the current global social organization model considered best practice.

Theory of Planned Behavior

The theory of planned behavior (TPB) (Ajzen, 1991) is based on the idea that physical activity or sport is governed by the intention or attitude, which reflects the driving elements for doing so, previous experiences, the subjective norm, and the perceived behaviour control (PBC) (Bruijn & Putte, 2012). Likewise, the key predictor of physiological or athletic activity is a person's willingness to exercise, which connects favourably with their level of involvement with sports practice and enables a higher level of long-term commitment (Beville et al., 2014; Song & Park, 2015). The original intention of Ajzen in creating the TPB was to study human behaviour and develop appropriate interventions (Ajzen, 2001). Ajzen (1991) developed the TPB based on the Theory of Reasoning Action (TRA). Both theories measure individuals' motivation to participate in a physical activity like a triathlon. According to Ajzen (1991), intentions are thought to include the motivating variables driving behaviour. For example, how hard people plan to

work depends on how great the difficulty is. According to TPB and TRA, the stronger the willingness of individuals to participate in behaviour, the more likely it is to happen.

There was insufficient evidence to predict human behaviour (Ajzen, 1991). The apparent difference between the Theory of Reasoned Action (TRA) and the Theory of Planned Behavior (TPB) lies in whether perceptual behaviour control (PBC) is included. TPB extends its concept to performance when one feels powerless about one's actions and attitudes or feels entirely out of control of one's will (Ajzen, 1991). As shown in Figure 2, a critical part of TPB is measuring a person's behavioural intentions, referred to as behaviour intent (Ajzen & Icek, 2006).

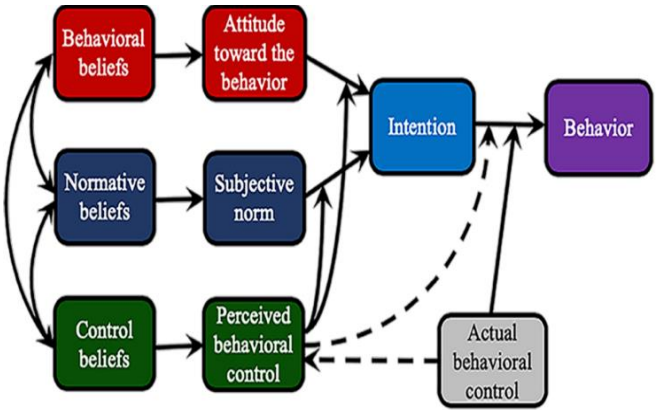

Figure 2. Theoretical Framework for Theory of Planned Behavior(Ajzen, 2006)

The primary purpose of this article is to examine whether the classic model of Ideal Type and the theory of planned behaviour reinforces the primary factors influencing triathlon development and motivations for people to participate in a triathlon and analyze the variables that affect triathlon development in southern China, triathletes' motivations for the practice of triathlon in southern China, and their relationship. The following hypotheses and theoretical model are proposed (Fig. 3):

- H1: Talent Search & Development influences the development of triathlon in southern China.
- H2 : Advanced Athlete Support influences the development of triathlon in southern China.
- H3: Training Centers influence the development of triathlon in southern China.
- H4: Competition systems influence the development of triathlon in southern China.
- H5: Intellectual services influence the development of triathlon in southern China.
- H6: Partnership with supportive agencies influences the development of triathlon in southern China.
- H7: Balanced & integrated funding & structures of mass & elite sport influence the development of triathlon in southern China.

- H8: Previous behaviour influences the motives of triathletes to participate in a triathlon in southern China.
- H9: Attitude influences the motives of triathletes to participate in a triathlon in southern China.
- H10: Subjective norm influences the motives of triathletes to participate in a triathlon in southern China.
- H11: Perceived behavioural control influences the motives of triathletes to participate in a triathlon in southern China.
- H12: Intention influences the motives of triathletes to participate in a triathlon in southern China.

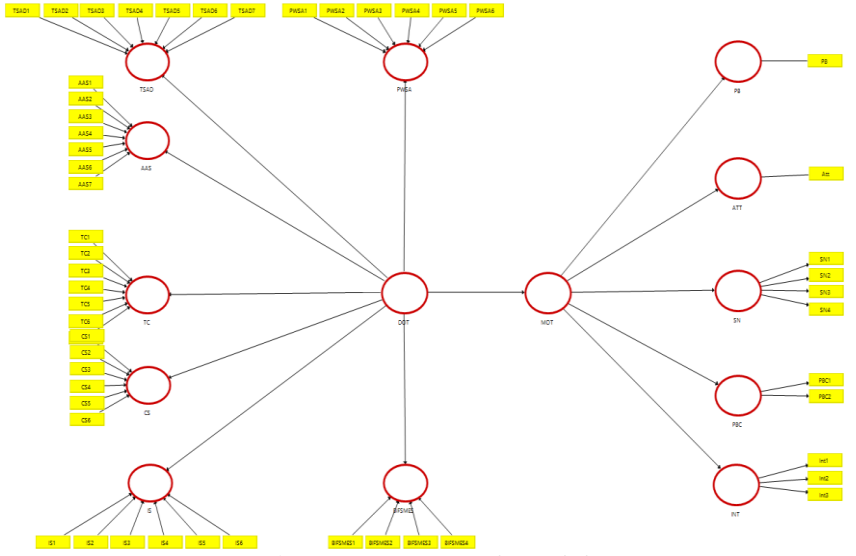

Figure 3. Proposed model

Methods

The construction of the model was based on the theory of the Global Type Ideal Model; the theory of planned behaviour (TPB), attitude, intention, perceived behavioural control, and subjective norm; In line with previous studies concerning ITM and TPB (Carney et al., 2012; Zeeuw et al., 2017; Smolianov et al., 2020); The survey questions were based on questionnaires found in the literature about ITM and TPB development and involvement in sports activities. We examined triathletes using the tools DOTS and MOTS, slightly modified from the Rugby-Specific Questionnaire and the Intention to Attend a Sports Event Scale (Carney et al., 2012; Cunningham & Kwon, 2003). Several domain experts have conducted this questionnaire's face validity and translate validity. A pilot study of the measurement tool was conducted.

Sample

A multi-stage cluster sampling technique was used to select the sample collecting procedure to get the greatest number of completed surveys (Hair et al., 2015). We contacted the presidents of the three clubs through e-mail in April 2022 to get the

right to investigate the triathletes of the three clubs. The questionnaire was sent electronically between May and July 2022, following the ethical and legal considerations communicated to the participants. There were 306 completed surveys, with 306 valid questionnaires constituting the final sample. The sample reveals that a large proportion of participants are from the 1980s and 1990s, that males participated in a greater proportion than females, that married participants are in a greater proportion than unmarried participants, and that nearly half of the participants have 1-3 years of sports experience; however, no differences were discovered that influenced or moderated the data with demographic variables (Table 1).

Table 1
Respondents' Demographic Information

Demographic		**Frequency (n=306)**	**Percentage (%)**
Gender	Male	202	66%
	Female	104	34%
Marital Status	Unmarried	63	20.6%
	Married	243	79.4%
Years of participating in sport	1-3 years	128	41.8%
	3-5 years	101	33%
	5-7 years	54	17.7%
	7-10 years	23	7.5%

Analysis of the Data and Results

Survey data served as the foundation for the statistical analysis in this current research. The data was screened using Statistical Package for the Social Sciences (SPSS). Normality and missing value of the data were evaluated during data screening. The partial least squares (PLS) strategy was used since the model is exploratory, and prior research has not confirmed the correlations between the variables (Carrion et al., 2018). Thus, Partial Least Square (PLS-SEM) 3.0 was used to assess the model of the study.

Measurement Model Assessment

The measurement model, also known as the outer model, describes the links between constructs and their corresponding indicators (Hair et al., 2014a; Sinkovics et al., 2016). According to the previous literature, researchers usually use the criteria of construct reliability, internal consistency reliability, indicator reliability, convergent validity, and discriminant validity to assess the measurement model's validity and reliability (Hair et al., 2012; Sarstedt et al., 2017). We run the PLS technique with 2,000 iterations to assess indicator

reliability; Table 2 demonstrates that the loadings of individual items for each reflective construct surpassed 0.7 with significance levels lower than the p-value of 0.005, illustrating the instrument's reliability for measuring reflective constructions (Hulland, 1999; Nunnally, 1978). Cronbach's alpha (CA) and the composite reliability (CR) coefficients surpassed the minimum permissible value of 0.7, demonstrating that the reliability of the indicators has been reached (Gefen et al., 2000). Thus, all reflective indicators are trustworthy. In addition, the variance inflation factor (VIF) value for formative indicators was less than 5, indicating no multicollinearity in the formative constructs (Sohaib, 2015).

Regarding construct reliability, Table 2 displays the results of a reliability test conducted by calculating Cronbach's alpha and composite reliability. Cronbach's alpha coefficient values vary between 0.807 and 0.946, whereas composite reliability ratings range between 0.937 and 1. These results give evidence of the constructs' high reliability. By assessing the average variance extracted (AVE) value, this study assesses the convergent validity of the measurement model. As shown in Table 2, the AVE for all constructs ranges from 0.818 to 1, well above the suggested cut-off of 0.5. This finding implies that the investigation's measurement model has shown sufficient convergent validity.

Table 2
Results of Measurement Model Assessment

2nd Order Construct	AVE	CR	Construct	Item	Scale	Loadings/Weights	AVE/T-values	CR/VIF	Rho_A
MOT	0.617	0.808	PB	PB	Reflective	1.000	1.000	1.000	1.000
			ATT	Att	Reflective	1.000	1.000	1.000	1.000
			SN	SN1	Reflective	0.903	0.818	0.947	0.926
				SN2		0.885			
				SN3		0.906			
				SN4		0.923			
			PBC	PBC2	Reflective	1.000	1.000	1.000	1.000
			INT	Int1	Reflective	0.907	0.833	0.937	0.900
				Int2		0.920			
				Int3		0.911			
DOT	0.974857	0.992596	TSAD	TSAD1	Formative	0.152	7.633	3.418	
				TSAD2		0.198	8.981	3.666	
				TSAD3		0.185	8.099	3.219	
				TSAD4		0.192	7.803	3.554	
				TSAD5		0.149	6.477	3.652	
				TSAD6		0.130	6.490	3.246	
				TSAD7		0.124	5.906	3.354	
			AAS	AAS1	Formative	0.137	5.750	3.447	
				AAS2		0.181	7.043	3.943	
				AAS3		0.165	6.363	4.001	
				AAS4		0.148	7.273	3.423	
				AAS5		0.167	7.717	3.022	
				AAS6		0.163	6.563	3.648	
				AAS7		0.164	6.396	3.814	
			TC	TC1	Formative	0.154	6.293	3.460	
				TC2		0.168	7.446	3.422	
				TC3		0.157	7.025	2.862	

				TC4		0.136	5.693	3.404	
				TC5		0.177	7.052	3.181	
				TC6		0.192	9.389	3.307	
				TC7		0.154	6.986	3.287	
			C	C1	Formative	0.206	9.741	3.428	
				C2		0.173	6.962	3.375	
				C3		0.212	9.182	3.743	
				C4		0.163	7.207	2.890	
				C5		0.198	9.515	2.983	
				C6		0.179	8.048	3.187	
			IS	IS1	Formative	0.206	8.201	3.101	
				IS2		0.246	8.498	4.209	
				IS3		0.172	6.537	3.429	
				IS4		0.147	6.247	3.011	
				IS5		0.170	7.521	3.085	
				IS6		0.183	7.324	3.609	
			PWSA	PWSA1	Formative	0.209	8.747	3.865	
				PWSA2		0.178	6.558	3.612	
				PWSA3		0.154	6.108	3.088	
				PWSA4		0.179	7.746	3.175	
				PWSA5		0.163	6.422	3.011	
				PWSA6		0.242	8.512	3.509	
			BIFSMES	BIFSMES1	Formative	0.238	7.966	2.908	
				BIFSMES2		0.248	9.783	2.539	
				BIFSMES3		0.230	6.855	3.185	
				BIFSMES4		0.395	11.215	3.367	

- CR: composer reliability, AVE: average variance extracted, VIF: variable inflation factor
- TSAD: Talent Search & Development, AAS: Advanced Athlete Support, TC: Training Center, CS: Competition System,
- IS: Intellectual Service, PWSA: Supportive Agencie, BIFSMES: Balanced & Integrated Funding, PB: Previous Behavior,
- ATT: Attitude, SN: Subjective Norm, PBC: Perceived Behaviora Control, INT: Intention, MOT: Motive of Triathlete,
- DOT: Development of Triathlon Regarding the discriminant validity, several scholars (Hair et al., 2016; Henseler et al., 2016) suggested testing discriminant validity using cross-loadings, Fornell-Larcker criteria, and Heterotrait-Monotrait Ratio. Each indicator's outer loading on its construct is greater than its cross-loadings on the other constructs (Table 3), which offers discriminant validity based on the cross-loading evaluation (Hair et al., 2011; Hair et al., 2016).

Table 3
Results of Cross Loadings

	ATT	INT	PB	PBC	SN
ATT	1.000	0.813	0.052	0.204	0.813
INT1	0.748	0.907	0.008	0.189	0.822
INT 2	0.759	0.920	-0.038	0.220	0.847
INT 3	0.718	0.911	0.062	0.220	0.822
PB	0.052	0.012	1.000	0.026	0.006
PBC2	0.204	0.230	0.026	1.000	0.207
SN1	0.726	0.832	-0.005	0.156	0.903
SN2	0.714	0.792	0.009	0.185	0.885
SN3	0.748	0.824	-0.014	0.189	0.906
SN4	0.750	0.842	0.032	0.220	0.923

The Fornell-Larcker criteria test shows that the diagonal line in Table 4 indicates that the square root of each construct's AVE is greater than the construct's

correlation with other constructs. Therefore, the constructs maintain discriminant validity.

Table 4
Results of Fornell-Larcker Discriminant Validity

	ATT	DOT	INT	MOT	PB	PBC	SN
ATT	1.000						
DOT	0.835	0.987					
INT	0.813	0.935	0.973				
MOT	0.906	0.969	0.963	0.985			
PB	0.052	0.007	0.012	0.021	1.000		
PBC	0.204	0.219	0.230	0.226	0.026	1.000	
SN	0.813	0.963	0.910	0.969	0.006	0.207	0.904

As shown in Table 5, HTMT evaluation findings range from 0.017 to 0.997%, demonstrating the constructs' discriminant validity.

Table 5
Results of HTMT Discriminant Validity

	ATT	INT	PB	PBC	SN
ATT					
INT	0.857				
PB	0.052	0.042			
PBC	0.204	0.242	0.026		
SN	0.844	0.997	0.017	0.215	

Structural Model Assessment

For the validation of the structural model, the path coefficients of the model were first examined; the value of the coefficient of determination (R^2) for the dependent variables was greater than 0.1, which allows for positively verifying that the model establishes the causality between its variables. Using the output of the SmartPLS algorithm, the associations between the independent and dependent variables were investigated (Hair et al., 2014b). (Table 6) (Figure 4). The results of evaluating the hypothesis and direct links are provided in Table 6, which indicates that 12 out of 13 path relationships in the structural model were significantly positive. In addition, the results show that the connection DOT -> TSAD is the strongest (β= 0.98), while the path MOT -> PBC is the weakest (β= 0.228). Seven independent variables, AAS, BIFSMES, C, IS, PWSA, TC, and TSAD, are affected by DOT, whereas five independent variables, ATT, INT, PBC, PC, SN, were affected by MOT. Therefore, hypotheses H1, H2, H3, H4, H5, H6, H8, H9, H10, and H12 are supported (Table 6) (F i g . 4).

Table 6
Results of Path Analysis

Hypothesis	Relationship	Std Beta	Std Error	|T-Value|∧	Decision	f^2	Adjusted R^2	95%CI LL	95%CI UL
H1	DOT -> AAS	0.979	0.003	299.331**	Supported	22.380	0.957	0.973	0.983
H2	DOT -> BIFSMES	0.962	0.005	176.956**	Supported	12.297	0.925	0.952	0.970
H3	DOT -> C	0.978	0.003	308.389**	Supported	21.708	0.956	0.972	0.983
H4	DOT -> IS	0.973	0.004	255.432**	Supported	17.656	0.946	0.966	0.979
H5	DOT -> MOT	0.969	0.005	202.146**	Supported	15.213	0.938	0.960	0.976
H6	DOT -> PWSA	0.976	0.003	281.631**	Supported	19.823	0.952	0.970	0.981
H7	DOT -> TC	0.979	0.003	312.557**	Supported	22.302	0.957	0.973	0.983
H8	DOT -> TSAD	0.980	0.003	316.961**	Supported	23.496	0.959	0.974	0.984
H9	MOT -> ATT	0.906	0.013	71.779**	Supported	4.605	0.821	0.883	0.924
H10	MOT -> INT	0.962	0.005	179.638**	Supported	12.596	0.926	0.953	0.970
H11	MOT -> PB	0.022	0.050	0.417	Unsupported	0.000	-0.003	-0.062	0.104
H12	MOT -> PBC	0.228	0.040	5.594**	Supported	0.054	0.048	0.163	0.296
H13	MOT -> SN	0.968	0.004	221.727**	Supported	15.170	0.938	0.961	0.975

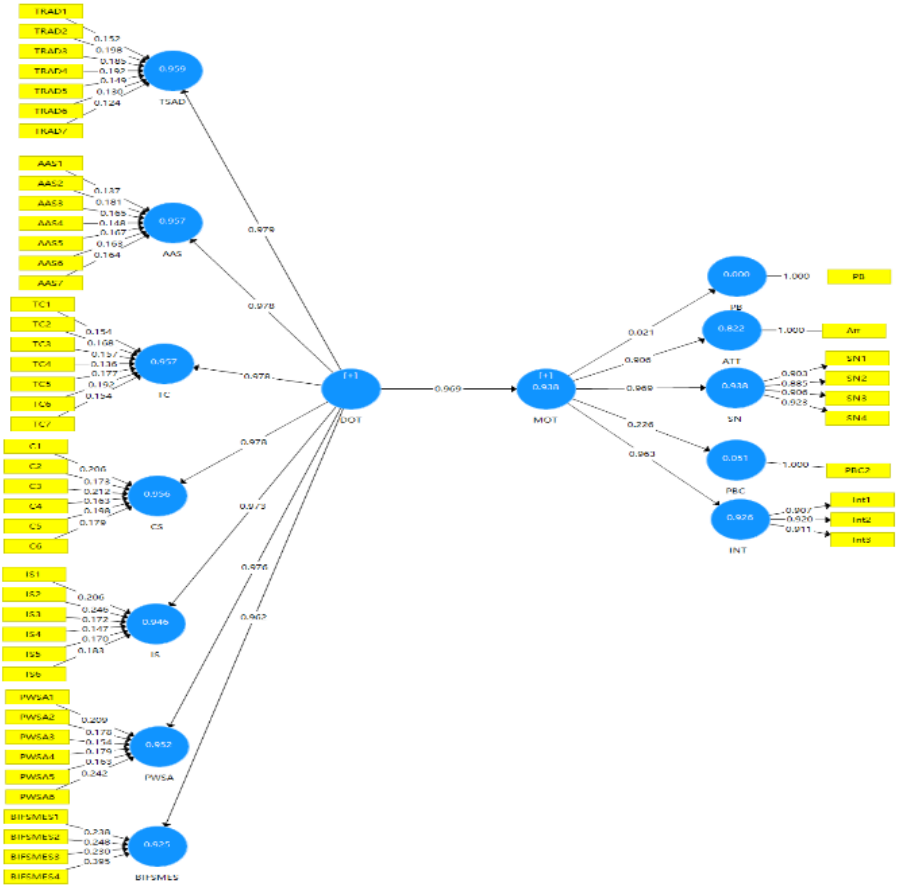

Figure 4. Results of Structural Model

Conclusions, Limitations, and Future Lines of Research

The theoretical implications of this research consist of analyzing the several links between the variables of the independently analyzed triathlon development and participation models. The findings indicate that triathlon development and participation are complex and require that many variables be considered comprehensively. Overall, this thesis has aided research by clarifying the features of the triathlon's growth and the causes of triathletes' involvement motivations in southern China. This study's practical relevance is that the administration and planning of offers and services for triathlon development and participation must consider all the factors influencing the behavior and satisfaction of triathletes. Regarding the influencing factors of triathlon, the research findings showed that Triathlon Development and the influencing factors of Talent Search and Development, Advanced Athlete Support, Training Centers, Competition Systems, Intellectual Services, Partnership with Supportive Agencies, Balanced and Integrated Funding, and Structures of Mass and Elite Sport directly influenced Triathlon Development. Also, Talent Search and Development emerged as a more robust predictor than other influencing factors; Regarding the influencing factors of triathlon participation motives, the research findings showed that previous behaviours, attitudes, subjective norms, and intentions directly influenced triathletes' motives.

The leaders, system administrators, decision-makers, and coaches in the China Triathlon Association in southern China are advised to enhance the growth of triathlon and the motivations of triathletes based on the study's findings. For example, the coaches currently serving triathlon teams are recommended to use the various proposed in the research model and its results. Decision-makers can plan and extract strategy from the triathlon talent identification model and consider their strengths and weaknesses; it is necessary to strengthen triathletes' competitive ability, increase sports teams' attention to players, and generate psychological sensations; Organizers should make it easier to locate and use swimming pools (or open water swimming locations), track and fields, and cycling venues to encourage more triathletes to compete and train in convention centres with abundant resources. Training facilities may boost motivation and participation in triathlons by providing incentives to promote triathletes to enhance their training levels. The stimuli presented should be tried and proper techniques for increasing triathlon motivation. In addition, each triathlon club should reward active members with training or competition trophies to encourage them to relate triathlon participation with exercise aspirations. This research has some limitations, including the fact that it is an exploratory study that needs additional confirmation; it is also important to examine other individuals, such as triathletes in northern China. Further, the participants' perceptions might differ when presented with another sports activity, such as a marathon, open water swimming, or even e-sports (e.g., CSGO or Dota). Hence, this study should be replicated with different sports activities.

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