CONFIRMATORY FACTOR ANALYSIS OF ISO-AHOLA'S MOTIVATIONAL THEORY: AN INVESTIGATION ON CHINESE TOURISTS IN THAILAND

การวิเคราะห์องค์ประกอบเชิงยืนยันในทฤษฎีแรงจูงใจของ ISO-AHOLA ในบริบทของนักท่องเที่ยวชาวจีนในประเทศไทย

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Abstract

The purpose of this paper is to (1) perform a confirmatory factor analysis of Iso-Ahola's motivational theoretical construct by following the work of Snepenger et al. in Thailand tourism context; (2) empirically test the higher order model to assess the nature of relationship between motivation factors in relation to its various dimensions.

The methodology involved the compilation of a literature review and conduction of quantitative approach. The confirmatory factor analysis was performed by using a data of 345 Chinese tourists traveled to Thailand. The results of this study revealed the comparable results as reported by Snepenger et al. and confirmed the existence of Iso-Ahola's motivational theory. A measurement model of Iso-Ahola's theory showed a good model fits with the following values: χ^2/df = 2.632, GFI = 0.945, AGFI = 0.910, CFI = 0.965, NFI = 0.944, RMR = 0.030, and RMSEA = 0.069. The result of this study would enable service providers a clear understanding of tourist's motivation. It is the essential for service providers to obtain the knowledge of tourists' behavior.

Keywords: Iso-Ahola's motivation theory, Confirmatory factor analysis, Tourism

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บทคัดย่อ

การศึกษาวิจัยในครั้งนี้มีวัตถุประสงค์เพื่อตรวจสอบความสอดคล้องของแบบจำลองโครงสร้างองค์ประกอบทฤษฎีแรงจูงใจของ Iso-Ahola โดยทำตามขั้นตอนของ Snepenger และคณะในบริบทการท่องเที่ยวของประเทศไทย วิธีการศึกษาในครั้งนี้ใช้วิธีการทบทวนวรรณกรรม และการวิจัยเชิงเชิงปริมาณเพื่อวิเคราะห์องค์ประกอบเชิงยืนยันและความสอดคล้องของแบบจำลองการวัดทฤษฎีแรงจูงใจ โดยใช้ข้อมูลจากนักท่องเที่ยวชาวจีนที่เดินทางมายังประเทศไทยจำนวน 345 คน ผลของการศึกษานี้แสดงให้เห็นถึงผลลัพธ์ที่สอดคล้องจากรายงานของ Snepenger และคณะ และยืนยันถึงทฤษฎีแรงจูงใจของ Iso-Ahola

ผลการตรวจสอบความสอดคล้องของแบบจำลองการวัดทฤษฎีแรงจูงใจของ Iso-Ahola กับข้อมูลเชิงประจักษ์ พบว่า ค่าสถิติที่ไคสแควร์สัมพันธ์มีรูปแบบที่ดี (χ^2/df) เท่ากับ 2.632 ค่าดัชนีวัดระดับความกลมกลืน (GFI) เท่ากับ 0.945 ค่าดัชนีวัดระดับความกลมกลืนที่ปรับแก้แล้ว AGFI เท่ากับ 0.910 ค่าดัชนีวัดระดับความสอดคล้องกลมกลืนเปรียบเทียบ (CFI) เท่ากับ 0.965 ค่าดัชนีวัดระดับความกลมกลืน (NFI) เท่ากับ 0.944 ค่าดัชนีรากกำลังสองเฉลี่ยของค่าความคลาดเคลื่อน (RMR) เท่ากับ 0.030 และค่าดัชนีรากของค่าเฉลี่ยกำลังสองของค่าความคลาดเคลื่อน (RMSEA) เท่ากับ 0.069 แสดงว่าแบบจำลองโครงสร้างแรงจูงใจของ Iso-Ahola มีความสอดคล้องกับข้อมูลเชิงประจักษ์ ผลจากการศึกษาครั้งนี้จะทำให้ผู้ให้บริการมีความเข้าใจถึงมิติด้านแรงจูงใจของนักท่องเที่ยวที่ส่งผลต่อพฤติกรรมของนักท่องเที่ยวเป็นอย่างดี

คำสำคัญ: ทฤษฎีแรงจูงใจของ Iso-Ahola การวิเคราะห์องค์ประกอบเชิงยืนยัน การท่องเที่ยว

Introduction

Thailand's tourism industry began since the 1960's and reached its golden age after twenty years of maintaining rapid development. Over the past decade from 2002 to 2016, the number of Chinese tourists had increased exponentially, especially in 2013, when Thailand had officially announced the exemption of visa fees for Chinese tourists in order to promote the growth of Chinese tourism.

The growth of Chinese tourists steadily continued to increase over the recent years. According to the Ministry of Tourism Thailand in 2016, the total number of foreign tourists was 32.6 million, making an important contributions to Thailand's economic income (Ministry of Tourism and Sports, 2016).

By 2016, Thailand had become the top ten popular destination for Chinese outbound tourism (Travel China Guide, 2016). Chinese outbound tourists had become the important factors for influencing consumption growth in East Asia tourism market. Making up the majority of the market, Chinese tourists were the largest contributors of revenue to Thailand's tourism industry which increased from 338 billion (THB) in 2015 to 445 billion (THB) in 2016 (Thairath, 2017).

According to the Ministry of Tourism, the top ten nationalities of tourists; were namely in order of; China, Malaysia, South Korea, Laos, Japan, India, Russia, United States, Vietnam, and United Kingdom.

Up until 2016, there were 8.7 million Chinese tourists travel to Thailand. The tourist authority of Thailand expects the number of Chinese tourists will rise to 9 million in 2017 (Ministry of Tourism and Sports, 2016). In order to better develop Thailand's tourism industry to be able to cater the rising demand of tourists, it is important to analyze the underlying factors of travel motivation which is the direct causal of tourism behavior. It is helpful for service providers to understand tourist behaviors of travel motivation in order to know which attributions would meet behaviors to provide services accordingly.

Literature Review

Motivation Concept

Early studies of tourist motivations done by Dann (1977), Crompton (1979) and Iso-Ahola (1980, 1982). Dann (1977) focused on two dimensions of motivation; namely the push and pull factors in his sociological study of travel motivation. Dann (1981) recalled the linkage of travel motivations to Maslow's hierarchy of needs theory. In a decision making of traveling, there are two basic factors of motivation; which he called; Anomie (desire to get away from mundane life) and Ego-enhancement (needs for recognition) which was gained through the status conferred by travel (Fodness, 1994). Further studies by Iso-Ahola (1980), he recognized the two motivational forces of determinants for tourism behaviors. These were seeking (desire to obtain psychological intrinsic rewards through travel) and escaping (desire to leave the everyday environment behind). Foundational works by Dann (1977), Crompton (1979) and Iso-Ahola (1980, 1982) were predominated paradigm basis of formulating and testing motivational theories in the context of tourism.

Related Research

Many researchers from different fields such as from sociology, anthropology, and psychology have been studies in motivations for tourism, both general and specific aspect of motivations.

The analysis of motivations based on the two dimensions of push and pull factors has been widely employed by researchers in this field (Michael, Wien & Reisinger, 2017; Mohammad & Som, 2010; You et al., 2000). Dunn Ross & Iso-Ahola (1991) conducted the field study to explore motivations and satisfaction dimensions of sightseeing tourists. Plog (1991) reported that destination travel and traveler's motivation were determined by traveler's personality. Meng, Tepanon & Uysal (2008) indicated that motivation was considered as a critical indicator and force influencing tourist's behavior. Their study was in line with the previous study by Crompton (1979).

Theory and Models

Iso-Ahola (1982) proposed a Social Psychological Model of Tourism Motivation which based on a social psychological. The model included four motivational categories: Seeking Personal Rewards (SPR), Seeking Interpersonal Rewards (SIR), Escaping Personal Environments (EPE), and Escaping Interpersonal Environments (EIE) as in Figure 1.

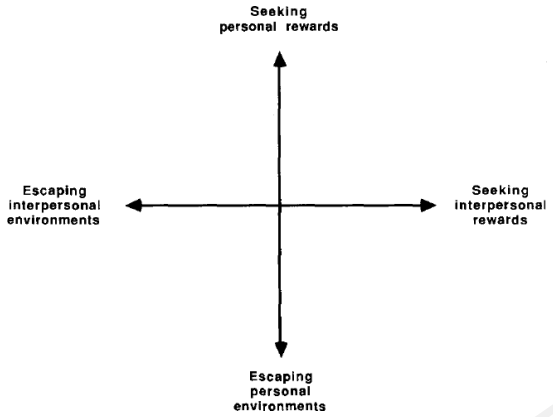


Figure 1 Iso-Ahola Social Psychological Model of Tourism Motivation

Source: Iso-Ahola (1984: 111)

Iso Ahola's motivation theory suggests that travel motivation is triggered by two factors; seeking (intrinsic rewards) and escaping (from routine/familiar environments). Both factors can be divided further into personal and interpersonal aspects Iso Ahola also defined that these factors are push factors of travel intentions. A recent study on the travel motivation of Indian Travellers by Siri et al. (2012) found the travellers' motivations of escaping routine work, stress reduction, and doing something exciting. Moreover, Sangpikul (2008) found that 'novelty and knowledge seeking' was the most important travel motivation of Japanese senior travelers. The development of construction and testing Iso-Ahola's travel motivation is quite restrained. It was Snepenger et al. (2006) whom operationalized and empirically tested the theory of Iso-Ahola's model for tourism and recreational experiences in US context; where Biwas (2008) followed their footsteps of Snepenger to the Asian context of Indian travellers.

However, there is a relative lack of study in Iso-Ahola's motivational theoretical in Thailand context. This research is meant to fill the gap in understanding Chinese tourist behavior of travel motivation, which the deciding factors for choosing destination. Previous researches have shown results of positive relationship between travel motivation and behavioral intention (Hsu & Huang, 2008; Lee, 2009; Regan, Carlson & Rosenberger III, 2012; Shrestha & Thanabordeekij, 2017). It is helpful for service providers to understand tourist behaviors of travel motivation in order to know which attributions would meet behaviors to provide services accordingly

Research objectives

- To perform a confirmatory factor analysis of Iso-Ahola's motivational theoretical construct by following the footstep of Snepenger et al. (2006) in Thailand context.
- To empirically test the higher order model to assess the nature of relationship between motivation factors in relation to its various dimensions.

Methodology

Quantitative approach was used in this study. The survey was conducted at the Don Mueang International Airport (DMK), Thailand. The target populations of this study were the Chinese tourists who visited Thailand during May 1st to 9th, 2017. The sample size was chosen based on general guidelines for sample size that

depends on the number of variables involved in the study. As the instrument used in this study aim has 12 items (statements) adopted from Snepenger et al. (2006), the required sample size should be 20 times of total number of items (Kline, 2015). Therefore, the minimum requirement of sample size should be 240 samples. Four hundred questionnaires were distributed among Chinese tourists waiting in departure lounges at the DMK. Convenience sampling method was employed. Data was collected from Chinese tourists using self-administered questionnaires survey. After removing questionnaire with missing or incomplete data, a total of 345 samples were corrected which matched the predetermined criterion of at least 240 samples.

The questionnaire for the main study contains two parts, which were demographic information section and research framework section. In research framework part, a total of 12 scale items adopted from Snepenger et al. (2006) were used to measure the four motivational dimensions proposed by Iso-Ahola (1982): escaping personal environment (EPE), escaping interpersonal environment (EIE), seeking personal rewards (SPR), and seeking interpersonal rewards (SIR), as presented in Table 1. The measuring scale was five-point Likert response scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Finally, there were five items in the demographic information section.

Table 1 The scale items

Escaping		Seeking	
Personal environment (EPE)		**Personal rewards (SPR)**	
EPE1	To get away from normal environment	SPR1	To tell others about my experiences
EPE2	To have a change from everyday life	SPR2	To feel good about myself
EPE3	To overcome a bad mood	SPR3	To experience new things by myself
Interpersonal environment (EIE)		**Interpersonal rewards (SIR)**	
EIE1	To avoid people who annoy me	SIR1	To be with people of similar interests
EIE2	To get away from stressful environment	SIR2	To bring friends
EIE3	To avoid interactions with others	SIR3	To meet new people
Original item from Snepenger et al. (2006)			

Analysis Techniques

This research apply Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity to provide guidance on the suitability of the data for factor analysis. Furthermore, Cronbach's alpha was applied to test scale reliability to all variables. As for the quantitative data analysis, the Statistical Package

for the Social Science was employed in this study. The descriptive statistics used to analyze the data were frequency, percentage, mean, and standard deviation. Social science statistical software was used to analyze the CFA measurement model.

Data Analysis

Table 2 shows that KMO value is 0.870 which above 0.5 threshold value. It implies that underlying common variance is significant. Bartlett's Test of Sphericity indicates whether variables in questions form an identity matrix. Identity matrix implies that variables in questions are unrelated. The significance level of the test less than 0.05 implies that the relationship among variables are significant. If the significance level of the test higher than 0.10 states that will not suitable for factor analysis. Thus, data employed in this study are suitable for factor analysis, as significance level value is 0.000 (Table 2).

Table 2 KMO and Barlett's test

Kasier-Meyer-Olkin Measure of Sampling Adequacy	0.870
Bartlett's Sphericity Test of Approximate Chi-Square	2241.696
Degree of Freedom (df)	66
Significance level	.000

Source: Author's calculation

Factor analysis with promax rotation produced four factors as presented by Iso Ahola and operationalized by Snepenger et al. (2006). Four factors explained 65.27% of the variance. Cronbach's alpha values for all variable were from 0.796 to 0.868 (Table 3). Many previous studies suggest that Cronbach's alpha values must be above 0.7 and could prove the scales have internal consistency (DeVellis, 2012; Hair et al., 2009). Thus, all constructs of this study were accepted for internal consistency. The factor loading for all scale items were well loaded from 0.534 to 0.964, as presented in table 3.

Table 3 Result of Factor Analysis

Items	Escaping Personal Environment	Seeking Personal Rewards	Escaping Interpersonal Environment	Seeking Interpersonal Rewards	Cronbach's Alpha
EPE1	0.746				0.825
EPE2	0.809				
EPE3	0.931				
SPR1		0.817			0.853
SPR2		0.867			
SPS3R		0.696			
EIE1			0.757		0.868
EIE2			0.829		
EIE3			0.750		
SIR1				0.696	0.796
SIR2				0.964	
SIR3				0.534	
Extraction Model: Maximum Likelihood					
Rotation Method: Promax with Kaiser Normalization					
Rotation converged in 5 iterations					

Source: Author's calculation

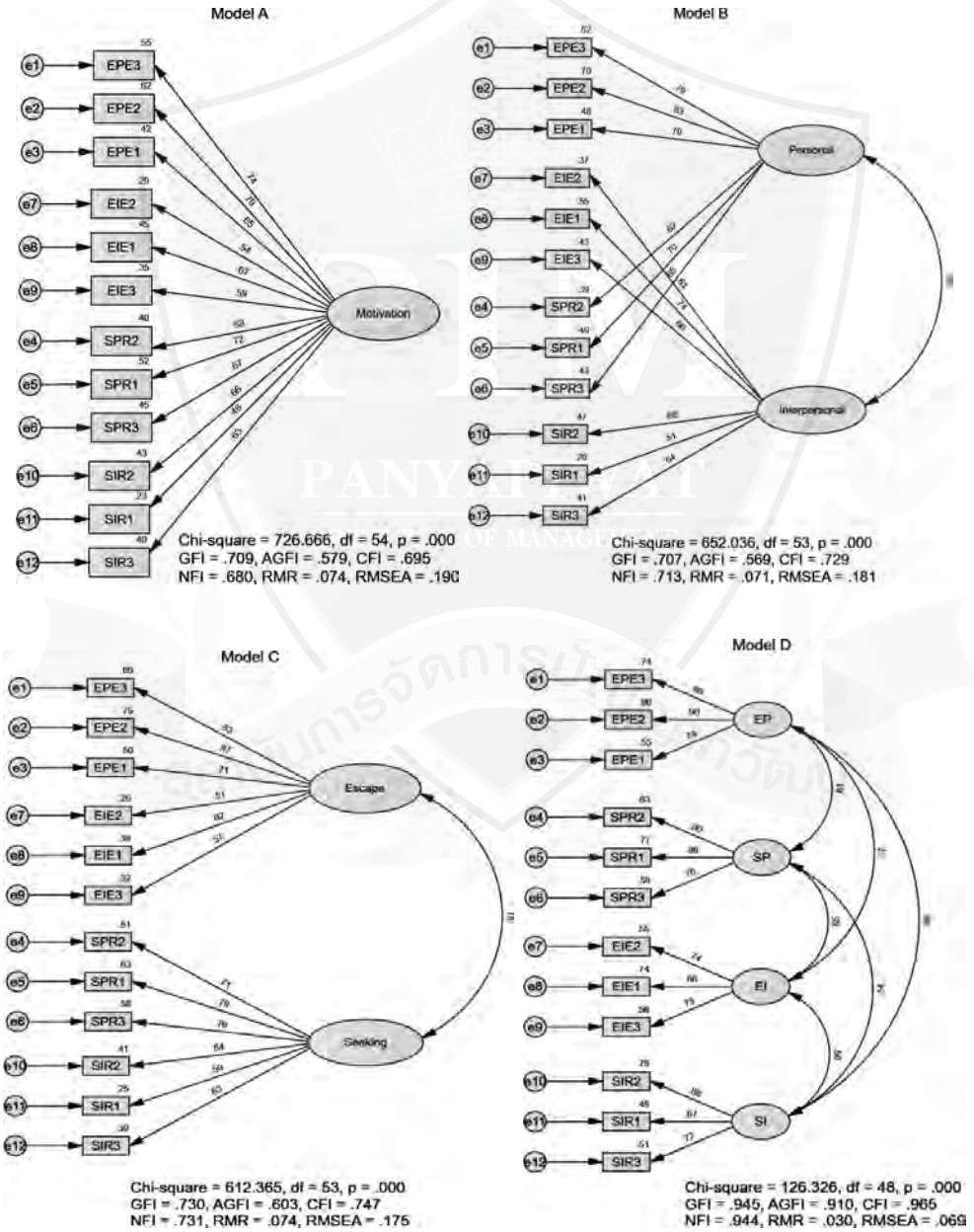
Results of the Study

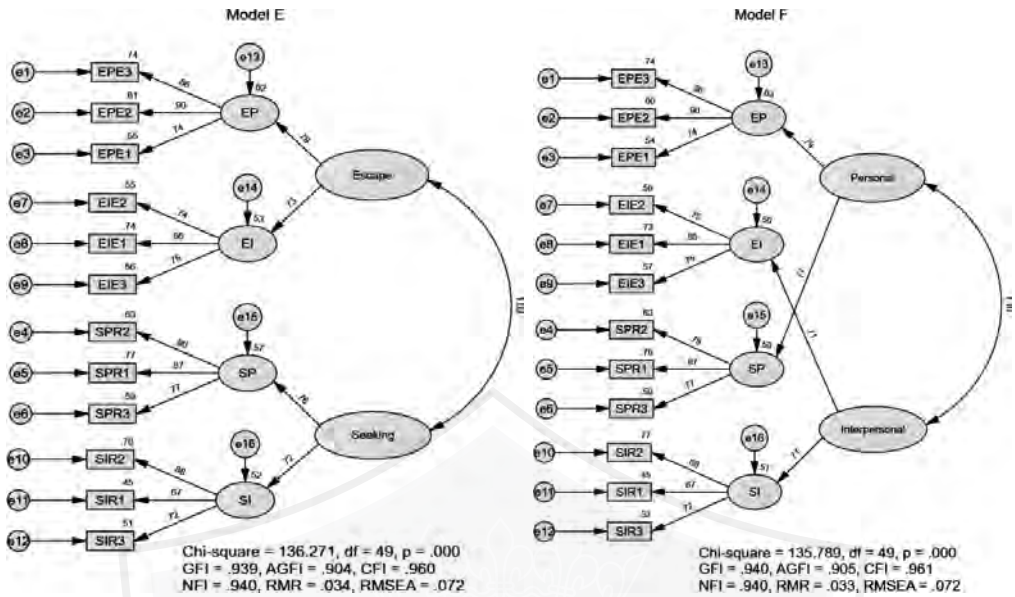
The demographic profile comprises of gender, age, education, and average monthly income. The collected sample consists of 56.8% males and 43.2% females, which considered as equally distributed in gender. There were totally five age groups: under 21, 21-30; 31-40; 41-50; and Over 50 years old. Majority of respondents, 37.4%, were between 31 and 40 years old, 33.0% were in range of 21 to 30 years old, 16.50% were in range of 41 to 50 years old, and 10.4% were over 50 years old. For monthly income, 8.4% of the respondents earned less than 3,000 RMB, 24.6% of respondents earned 3,001 to 5,000 RMB, 30.7% of respondents earned 5001 to 8000 RMB, and 36.2% of respondents earned more than 8,000 RMB.

Model Evaluation

The 12-item scale developed by Snepenger et al. (2006) was adopted to test the measurement model with its four factors (i.e. EPE, EIE, SPR, and SIR). There were six models to evaluate the construct as presented by Snepenger et al. (2006).

Though this study is intended to evaluate and confirm the work of Snepenger et al. (2006) with the Chinese tourist context in Thailand. The Confirmation Factor Analysis (CFA) was employed using maximum likelihood estimate method to verify how well these tested items represent the latent variables in the current study. The results of CFA model were evaluated using multiple indices such as Chi-square value (χ^2), degree of freedom (df), goodness of fit index (GFI), adjust goodness of fit index (AGFI), normal fit index (NFI), comparative fit index (CFI), root mean square residual (RMR), and root mean square error of approximation (RMSEA) (Hair et al., 2009). The six models were as follow:





Model A implies all scale items to form one factor i.e. Motivation. It simply provides a baseline for comparison and test validity of a single-factor motivational structure.

Model B implies six personal scale items and six scale interpersonal items to form two district factors, namely; personal and interpersonal motive.

Model C implies six escaping scale items and six seeking scale items to form two district factors, namely; escaping and seeking motive.

Model D implies those four dimensions each establish escaping personal environment (EPE), seeking personal rewards (SPR), escaping interpersonal environment (EIE), and seeking interpersonal rewards (SIR). This is consistent with Iso-Ahola's motivation theory.

Model E implies the second order factor analysis: three escaping personal environment (EPE), and escaping interpersonal environment (EIE) establishes second order *escaping factor*; three seeking personal rewards (SPR) and seeking interpersonal rewards (SIR) establishes second order *seeking factor*.

Model F is similar to model E. It implies the second order analysis: three escaping personal environment (EPE) and seeking personal rewards (SPR) establishes second order *personal factor*; three escaping interpersonal environment (EIE) and seeking interpersonal rewards (SIR) establishes second order *seeking factor*.

Table 4 presents six completing models. The measurement model A, B, and C indicated an unacceptable model fit: $\chi^2/df > 3$, GFI < 0.9, AFGI < 0.8, CFI < 0.9, NFI < 0.8 and RMSEA > 0.08. All fit indices were violated. On the other hand, model D, E, and F indicated a good model fit. Especially model D, it provided better fit value compared to model E and F. All fit indices of model D were; $\chi^2/df = 2.632$, GFI = 0.945, AFGI = 0.910, CFI < 0.965, NFI < 0.944, RMR = 0.030, and RMSEA > 0.072 (Table 4). Moreover, the model D also confirmed the existence of the motivational dimensions proposed by Iso-Ahola (1982).

Table 4 The first-order CFA fit summary

Fit Indices	χ^2/df	GFI	AGFI	CFI	NFI	RMR	RMSEA	Model Fit
Acceptable Threshold Levels	< 3	≥ 0.9	≥ 0.8	≥ 0.9	≥ 0.8	< 0.08	< 0.08	
Model A	13.457	0.709	0.579	0.695	0.680	0.074	0.190	No
Model B	12.303	0.707	0.569	0.729	0.713	0.071	0.181	No
Model C	11.554	0.730	0.603	0.747	0.731	0.074	0.175	No
Model D	2.632	0.945	0.910	0.965	0.944	0.030	0.069	Yes
Model E	2.781	0.939	0.904	0.960	0.940	0.034	0.072	Yes
Model F	2.771	0.940	0.905	0.961	0.940	0.033	0.072	Yes

Source: Author's calculation

Implication and Conclusion

The objective of this study was to perform a confirmatory factor analysis of Iso-Ahola's motivational theoretical construct by following the footstep of Snepenger et al. (2006) in Chinese tourists travel to Thailand context and to empirically test the higher order model to assess the nature of relationship between motivation factors in relation to its various dimensions. To achieve this objective, the study applied thee 12-item scale of Iso-Ahola's model developed by Snepenger et al. (2006). The results of present study finds similar results as it has been reported by Snepenger et al. (2006) in US context and Biwas (2008) in India context. The motivational theory proposed by Iso-Ahola (1982) was tested, Model D. The result confirms the existence of the motivational dimensions proposed by Iso-Ahola (1982) in Thailand context. It passed the confirmatory assessment. Thus, the model is consistent with the theory and provides a reasonable level of overall fit with Thailand context.

This gives a thorough assessment of motivation in tourism industry. Travel motivation can be considered as influencing factors that create a desire in an individual to travel to a particular destination. By clearly understanding of tourist's motivation is the essential for service providers to obtain the knowledge of tourists' behavior (Hsu & Huang, 2008). Furthermore, service providers could fulfill tourists' need and enhance their travel experience with enable more satisfaction as well as positive revisit intention.

Limitation and Future Research

The target populations of this study were limited to the Chinese tourists who visited Thailand. Future study should be conducted with different nationalities who visited Thailand in order to make broader generalization from the results.

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