



Predicting Generation Z's Travel Intention through Structural Equation Modeling

Shuangmei Pan^{1,*} and Thitikan Satchabut²

ARTICLE INFO

Article history:

Received: 8 December 2020

Revised: 25 June 2021

Accepted: 15 July 2021

Keywords:

Generation Z

Theory of planned behavior

Travel intention

Structural equation modeling

ABSTRACT

As an important part of the world's population, the Generation Z is the main consumption group in the future. However, there's limited research on Gen Z in the fields of tourism. This paper used the basic theoretical framework of the theory of planned behavior to test the travel intention of Gen Z, and used the structural equation modeling to test the relationship between travel intention and attitude, subjective norms, and perceived behavioral control. The research samples were mainly from 406 college students from a higher vocational college in Guangxi. This study found that attitudes and subjective norms of Gen Z have positive effect on their travel intention. Meanwhile, attitude was the most significant predictor of behavioral intention for Gen Z. However, perceived behavioral control has little effect on travel intention. This study theoretically improves the academic research on the travel intention of the Gen Z, fills the gap in the research on the travel intention of Gen Z, and provides an empirical basis for the development of the Gen Z tourism market segment.

1. INTRODUCTION

The global tourism industry develops rapidly. According to the data of World Tourism Organization [1], the total number of international tourists reached 1.4 billion, and the total international tourism exports have grown to 1.7 trillion in 2018. The amount of Tourism enterprises is increasing and the tourism market is becoming increasingly competitive. Exploring new segments continuously has become an important approach for tourism enterprises to enlarge their profitability and gain competitive advantages [2]. Reference [1] demonstrated that young travelers who are aged 15-29 years old accounted for 23% of total international tourists. Chinese *Global Tourism Consumption Report 2019* also pointed out that the post-1995 generation has the most prominent growth rate in terms of growth rate of the number of tourists, reaching 48%, indicating that young generation has become an increasingly important segment with great potential and benefits in the competitive tourism market.

Young generation today is what have been termed "Generation Z", or Gen Z for short, is also called the "Net Generation", the "iGeneration", or the "New Silent Generation" [3]. It is a generation born in the digital world and rapid development of Internet technology [4]. As for the definition of Gen Z, different scholars defined it

differently. Reference [5] defined Gen Z as individuals born from 1995-2012, while [6] defined them as those born since 1995 to 2010. Gen Z generally refers to the generation greatly influenced by technology products and directly access to the digital technologies [6]. They are entrepreneurial, innovative and passionate, knowing how to make money by using mobile apps, social media and other digital technologies [4]. They lack collaboration and communication skills [7] and have less sense of belonging, responsibility and awareness [5]. This generation is fully integrated into the digital lifestyle [4].

Gen Z is growing up and will influence the global trends in the next several decades. Using data from the United Nations, Bloomberg predicted that Gen Z would account for 32% of the global population by 2019. They are a quarter of the U.S. population but accounts for more than 40 percent of all consumers by 2020 [8] and contributing \$44 billion to the U.S. economy [9]. According to data from China's Sixth Census in 2010, there are about 0.24 billion Chinese Gen Zers, accounting for about 18 percent of the total population and covering young people from campus to workplace. College students, in particular, are an important part of Gen Z (aged from 18-25), with an increasing total number. According to the national statistical bulletin on the development of education 2019,

¹International School of Management, University of the Thai Chamber of Commerce, 126/1 Vibhavadi Rangsit Rd, Din Daeng, Bangkok 10400, Thailand.

²International Bachelor Program in Tourism Management, National Kaohsiung University of Hospitality and Tourism, No. 1, Songhe Rd., Xiaogang, Kaohsiung, 812, Taiwan.

*Corresponding author: Shuangmei Pan; Phone: +86-18877642806; E-mail: 261790860@qq.com.

released by the Ministry of Education of China in May 2020, the total number of students studying in higher education in China had reached 40.02 million. The economic benefits of these tens of millions of college students will be considerable. Compared with other Gen Zers, most of college students have no pressure for further study [2] and entrance exam. They have more spare time at their disposal [2], they gain more rights and less restrictions to make their own decisions. Since Gen Z are college student, thus they have limited budget [10]. College students of Gen Z have stronger self-awareness, they are willing to experience different and new things [11]. Understanding their behavior intention is essential to explore new market segments.

In the field of behavior research, most of researchers agreed that intention is one of the most predictor to predict behavior [12]–[14]. Intention represents the degree to which consumers are trying to implement a behavior, or the degree to which they are willing to put in the effort to perform a particular behavior [15]. In this paper, it indicates the degree to which Gen Z intend to perform their travel behaviors. However, for searching the related articles published on the journal websites, there are a large number of market researches on Gen Z, but most of them are more focused on effective marketing and advertising [9], [16], such as studying the influence of Gen Zers' perception of consumer-generated content on social media on their willingness to travel [17], examining the search preferences of Gen Z when planning a trip to a destination they are unfamiliar with [10]. In general, the academic literature on Gen Zers' travel intention is limited [9], [16].

The importance of the research towards this generation is that they represent the future market [18] because of their increasing number and consumption power [9]. This paper provides a perspective to study the travel intentions of Gen Z tourists through the study of college students. This is a contribution to the knowledge system and is beneficial to the exploration of new tourism markets.

2. LITERATURE REVIEW

The theory of planned behavior

The theory of planned behavior (TPB) is considered to be one of the most popular and powerful models of researching intentions [13], which is used by researchers to test people's attitudes and behaviors. According to TPB, the actual behavior of individuals are not only affected by attitude and subjective norms (SN), but also by the variables of perceived behavioral control (PBC) [13], [19]. Behavior intentions directly determines individuals' behavior to some extent, and is also positively influenced by attitude, SN and PBC [13].

A large number of empirical studies have verified TPB model has a good explanatory power on explaining and predicting individual behaviors, such as the green products

purchasing [20] and the disposal of take-out garbage [21], etc. Many empirical studies showed that TPB can explain various behavior intentions. For instance, the willingness of enterprises for accepting new product [22], crisis planning intention among accommodation managers [23], etc. Some scholars extended TPB model to better understand young consumers' intention to buy green products in developing country [24], or to test intention of take-out garbage classification among 487 urban residents [21], etc.

In terms of tourism, TPB was used to test the main factors which directly or indirectly affected the overseas shopping intention of Chinese tourists [25]; to study the risk management from the visitors' perspective [26]; or was extended to explore the intention of Thai consumers over 18 years old with high school education to purchase green products [20], to predict the intention of car drivers using the new low-cost carriers to travel in Libya [14], or to predict the intention of young Indian consumers to visit green hotel [24]. It is clear that from these studies, TPB can explain behavior intention and then contribute to predict behavior intention and the consequent behavior. Meanwhile, in the study of behavior intention, many studies have also proved that attitude, SN and PBC all have significant effects on the behavior intention [13], [14], [27]. Therefore, based on TPB, this paper studied the travel intention of Gen Z by measuring their attitude towards travel, SN and PBC.

In terms of tourism, attitude refers to a person's positive or negative evaluation towards travel [28]. It can influence and predict the occurrence of behavior to a certain extent [29]. The effect of attitude on behavior intention has been verified in many researches that use TPB theory to study behavior intention [13], [23], [27]. Some scholars found that attitude is the most important psychological factor affecting behavior intention. It is showed that positive attitude strengthens the behavior intention of taking actions while negative attitude weakens them [23]. It can be seen that attitude is an effective predictive variable that explains and predicts behavior intention [13]. Therefore, it is essential to study the attitudes toward travel of Gen Z, so as to better understand their travel intention. Based on this, the following hypothesis is proposed:

H1: The travel attitude of generation Z has a positive effect on their intention to travel.

SN mainly refers to the social pressures that individuals perceive from their important others to participate or not participate in a particular behavior [30]. According to TPB, SN is one of the antecedents of intention formation, which can effectively explain and predict behavioral intention [13]. If individuals think that their important others will support their behavior, they will have strong behavior intention to perform that particular behavior [31], [32]. In other words, individuals will have strong travel intention when their important others think that they should go

travelling.

Many studies have demonstrated the significant effects of SN on behavior intentions. It can be used to study Thai consumers' green products purchasing [20]; Libyan car drivers' new low-cost carriers' usage [14]; and the adoption of smart consumption [33], etc. Additionally, some scholars believed that there was a correlation between attitude, SN and PBC [34], among which attitude plays a mediating role between SN, PBC and behavior intention [35]. It showed that SN indirectly affects behavior intention through attitude while attitude is the most important factor driving the behavior intention [27]. There are existing studies [36], [37], can effectively explain the influence of SN on attitude towards behavior [37]. Based on this, the following hypotheses are proposed:

H2: The subjective norm of generation Z has a positive effect on their intention to travel

H4: The subjective norm of generation Z has a positive effect on their travel attitude

PBC refers to the degree of perceived ease and difficulty of completing a behavior [38]. And it is likely to influence the formation of individuals' behavior intention [39]. By combining a large number of literature, it was found that a high level of PBC led to stronger intentions to make classification of food take-out garbage [21] and ethical purchasing [19]. Additionally, some scholars confirmed the relationship between attitude and PBC through empirical researches. Some studies have shown that PBC and attitude are not independent of each other [40]. It is believed that PBC is an effective predictor of behavioral attitude [13]. When [19] and [41] respectively explained the ethical purchase decision-making mechanism and the influence mechanism of civil servants' intention to participate in anti-corruption education, they both found that PBC has a positive effect on attitude. Based on this, the following hypotheses are proposed:

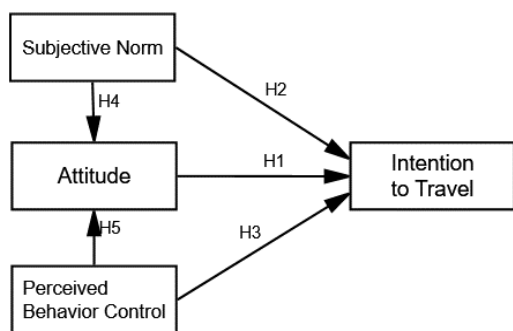


Fig. 1. The Conceptual Framework.

H3: Perceived behavioral control of generation Z has a positive effect on their intention to travel

H5: Perceived behavioral control of generation Z has a

positive effect on their travel attitude

Based on the relevant literature, the conceptual framework (Figure 1) in this study was adapted from the TPB conceptual model of Icek Ajzen.

3. METHODOLOGY

The population in this study is college students in Guangxi Peixian International College, which can reflect the behavioral intention of general college students and Gen Z to some extent, and providing empirical data for intention research in this field. The primary data is collected from Peixian students through online questionnaire and is analyzed with quantitative analysis method. All variables in the questionnaire were measured by Five-level Likert Scale, with 1=strongly disagree to 5=strongly agree to express the level of agreement. The questionnaire mainly consists of two sections: the first section is demographics, which is used to collect basic information about respondents, such as gender, age, grade, family structure and monthly living expenses. The second section is designed to measure the variables of this study, including attitude, SN, PBC and travel intention. Question items are mainly from scholars [14], [42]–[44] and are adapted according to this study. All items are direct to behavior intentions based on TPB framework.

This paper used descriptive, reliability and SEM to analyze the data. The criterion for reliability test of sample data in this study is Cronbach's coefficient (α). Generally speaking, Cronbach's alpha coefficient ≥ 0.70 , which is considered to be of good internal consistency and high reliability, the items under all variables can be retained. Additionally, structural equation model (SEM) is selected to evaluate the relationship among multiple variables simultaneously in this study. SEM is an excellent measurement tool for attitude, behavior and internal relations, helping identify, estimate and verify model [45], which is more suitable for the measurement of these variables. In this paper, only the relationship between independent variables and dependent variables is analyzed, the influence of the other influencing factors is not included.

4. RESULTS

This study collected data through online questionnaire which was produced by Wenjuanxing website (one of the most powerful and professional questionnaire website in China). The questionnaire was distributed to the specific sample population through DingDing software (the most popular multi-terminal platform for free communication and collaboration during the COVID-19 pandemic in China) to complete the data collection. This study collected 429 questionnaires, while excluding 23 questionnaires that were not answered seriously, this study finally got 406 valid questionnaires.

In assessing the demographics of the samples, a total of 281 respondents are female, accounting for 69.2%, while 125 respondents are male, accounting for 30.8%; the age between 18-22 years old accounting for about 96.6%, followed by 23-25 years old respondents, accounting for 3.4%, which is in line with the current situation of college students of Gen Z; among the respondents who filled out the questionnaire, sophomores were in the majority, accounting for 74.9%, followed by senior students, accounting for 20.9%, the number of freshmen was 11, accounting for 4.2%; 86% of respondents are non-single-child; in terms of monthly living expenses, 65.3% of respondents spent less than 1000 RMB per month, which is just enough for their living expenses.

In assessing the reliability of data, the Cronbach's Alpha of attitude is 0.860, SN is 0.843, PBC is 0.760, and intention is 0.782. Cronbach's Alpha of all variables is greater than 0.7, indicating that the whole scale has good internal consistency and high reliability, which can be analyzed in the next step.

Before completing the SEM, this study adopts first-order Confirmatory Factor Analysis (CFA) to evaluate the reliability and validity of each construct, and to delete items that didn't meet the criteria, so as to ensure the construct validity of each measurement model is good [46], [47]. According to the AMOS modification indices, all of non-confirming items that factor loading <0.6, CMIN/DF >3, RMSEA >0.08, or GFI, CFI, AGFI, <0.9, were deleted. By deleting non-confirming items of Att3, SN3, SN6, PBC1, PBC2, PBC 6 and INT 4, CFA modified models could be further modified in the next step.

Table 1. Convergent Validity Indicators of Measurement Model

Constructs	Items	Unstd.	S.E.	t-value	P	Std.	SMC	1-SMC	CR	AVE	
ATT	Att1	1.000				.709	.503	.497	.838	.565	
	Att2	.992	.073	13.532	***	.788	.621	.379			
	Att4	.893	.069	13.032	***	.761	.579	.421			
	Att5	1.024	.078	13.202	***	.746	.557	.443			
	SN	SN1	1.000				.715	.511	.489	.835	.562
SN	SN2	.876	.077	11.45	***	.620	.384	.616			
	SN4	1.226	.082	14.875	***	.875	.766	.234			
	SN5	1.114	.080	13.943	***	.766	.587	.413			
	PBC	PBC3	1.000				.610	.372	.628	.791	.562
	PBC4	1.590	.147	10.8	***	.845	.714	.286			
PBC5	1.304	.118	11.097	***	.774	.599	.401				
INT	INT1	1.000				.634	.402	.598	.792	.493	
	INT2	1.120	.093	12.029	***	.860	.740	.260			
	INT5	.937	.094	9.934	***	.611	.373	.627			
	INT3	.834	.080	10.441	***	.675	.456	.544			

As can be seen (Table 1), all unstandardized parameter

estimates are significant. The standard loadings are from 0.610 to 0.875 and reach the significant value, which all meet the criteria. SMC of each item is greater than 0.36, most of them are greater than 0.5. CR value of all constructs is greater than 0.7. All of AVEs is greater than 0.5, except for intention, of 0.493 but around 0.5, which is an acceptable value.

Table 2. Analysis of Discriminant Validity Indicators

	AVE	INT	PBC	ATT	SN
INT	.493	.702			
PBC	.562	.230	.750		
ATT	.565	.731	.189	.752	
SN	.562	.477	.433	.379	.750

Square root of AVE in bold on diagonals
Off diagonals are Pearson correlation of constructs

As shown in Table 2, the square root of AVE of each construct is higher than the Pearson correlation of constructs, except for the AVE of intention, 0.702, which is a bit lower than the Pearson coefficient of attitude construct. Since the difference is small, it can be said that there is a discriminant validity.

In summary, the research model of this study has good convergent and discriminant validity, indicating that the internal consistency and reliability of the model is good, which can be used for SEM analysis.

According to CFA results of each construct, all measurement models were adjusted, the model fit of the CFA modified models were re-tested (Table 3).

Table 3 Goodness-of-fit Indices of the Modified Model

Indices	CMIN/DF	RMSEA	RMR	GFI	AGFI	CFI	TLI	NFI
Evaluation Standard	<3	<0.08	<0.05	>0.9	>0.9	>0.9	>0.9	>0.9
M0	2.447	0.060	0.035	.937	.910	.951	0.939	0.920

Results showed that all indices of the modified model meet the evaluation criteria and have reached ideal values [47], [48]. In general, the fitting degree of the modified model is good (Figure 2).

Based on the data in this study, three of paths are significant, and two are not (Table 4). Therefore, three of the five hypotheses in this study were valid.

Table 4 The Summary of Hypotheses Testing

	Estimate	S.E.	C.R.	P	Hypothesis	Support?
ATT <--- SN	.373	.070	5.299	***	H4	Yes
ATT <--- PBC	.029	.060	.476	.634	H5	No
INT <--- SN	.236	.063	3.724	***	H2	Yes
INT <--- ATT	.643	.070	9.187	***	H1	Yes
INT <--- PBC	.008	.051	.154	.878	H3	No

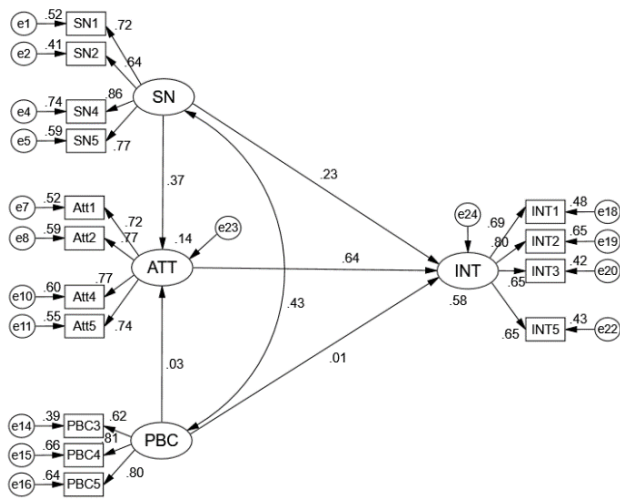


Fig. 2. Modified Research Model.

Results showed that attitude has positive effect on intention; the effect of attitude on intention is greater than SN’s effect on intention; SN has positive effect on both attitude and intention, and its effect on attitude is greater than that of on intention; however, PBC has little effect on both attitude and intention.

5. DISCUSSIONS

TPB is considered to be one of the most popular and powerful models of researching intentions, which can explain various behavior intentions [15]. Many scholars have applied TPB to their own research and verified the effect of attitude, SN and PBC on individual’s behavioral intention [13], [24]. A large number of existing studies confirmed that SN, PBC and attitude have positive effects on behavioral intentions [22], [23], [49].

This study found that attitude has positive effect on intention, which verified the hypothesis H1, and once again confirms the findings of [13] and previous studies. Young people are deeply influenced by SN [50], which is consistent with the result of this study that Gen Z was positively influenced by SN. By using SEM, Table 1 shows that college has the greatest effect (factor loading of 0.87) on SN. Reference [32] points out that subjective norms are more obvious in the context of culture. That is to say, individuals are more likely to be influenced by their important others and may change their intention or initial attitude. In the context of Chinese culture, students spent whole day in the college and strictly follow the regulations of the college. Students here believe that college rules and regulations are for students’ own safety and benefits. However, in this study, the effect of SN on Gen Z’s travel intention was not as important as [51] believed. The results of this study was different from [51]’s studies and was in line with [20], that is, attitude has the greatest significant effect on behavior intention, while SN has less effect on behavior intention than attitude [20]. However, SN is

still one of the main predictors of behavior intention based on TPB [20], [14], [33]. Some scholars believed that SN has a direct and indirect [27] positive [36] effect on attitude of individuals. The positive effect of SN found in this study on attitude and travel intention verified the hypotheses H2 and H4, which once again confirms the findings of [13] and previous studies.

Besides attitude and SN, PBC is shown to be the most important predictor of behaviour intentions in TPB [19]. However, it is interesting to find that PBC did not has predictive effect on the travel intention of Gen Z in this study. There was a small correlation (0.1) between PBC and behavior intention in this study. This finding contradicted the research [13] that found PBC was a better predictor than attitude. Although it has rarely happened, some previous studies found that PBC was not contribute to the prediction of behavior intentions [52], [53]. While which was caused by other factors such as past behaviors [53] and self-efficacy [52]. [54] also believed that attitude and self-efficacy were strong predictors of intention, while PBC was not. Additionally, some studies have found that PBC has positive effect on attitude [14], [19], which was inconsistent with the results of this study. In this paper, it was found that PBC has little positive effect on both attitude and travel intention, which made hypotheses H3 and H5 invalid and was contrary to the study of [13]. Different samples will lead to different research results. The samples of this study are the Gen Z college students with their own characteristics, such as no income [10], limited ability to go traveling, be heavily influenced by important others in decision-making [32], etc. This is in line with the current situation of most college students. However, this does not prevent them from having a positive attitude and intention towards travel [11]. They like traveling, they think travel is beneficial and they intend to travel in the future, even though they do not have enough time, money, or ability to travel [2], [16]. Gen Zers recognize the benefits of travel and have a strong intention to go traveling [2]. Therefore, the results of this study shows that although PBC has little effect on attitude and travel intention of Gen Z, attitude still has significant effect on intention. Although some possible reasons for this were discussed, more studies are suggested to be done in the same setting to re-validate this finding or to be further validated by expanding the scope and samples.

6. CONCLUSIONS

The premise of this study is that Gen Z should be regarded as an important tourism market segment with great development potential. With the rapid development of global tourism, Gen Z is becoming one of the major consumer groups in the world due to its large amount of population and increasingly consumption power, according to *Global Tourism Consumption Report 2019*.

This paper aimed to study Gen Z’s intention towards

travel based on TPB theoretical model, offering useful insights and empirical data to the government, colleges and tourism enterprises. It is clear to note that Gen Z can gain knowledge, skills, experience and other benefits by traveling [55].

This study is helpful for colleges, relevant government departments and tourism enterprises to better understand the behavior of Gen Z. By assessing Gen Z's travel intentions, colleges could better play the potential educational function of tourism products and improve the personal ability of Gen Z [55]. Educating tourism information and knowledge can help improving students' safety in the journey; teachers and students who are majoring in tourism can participate in the travel of Gen Z, tailoring affordable tourism products or designing appropriate routes for Gen Z students [2], [16]. Because most of Gen Zers are students, they have limited budget. Government could release some preferential policies for Gen Z and promote the green and healthy development of Gen Z tourism market. For instance, the railway authorities could appropriately increase the number of times that students use ID card to take preferential tickets every year; transportation authorities could offer price discount for eligible students and so on [2], [16]. Besides, this study offers an empirical basis for tourism enterprises, so as to design suitable tourism products and targeted strategies for Gen Z market segment [2], [55]. Such as economic tourist routes; short-term trips on weekends or holidays; hands-on activities; appropriate adventurous and exciting experiences; catering, accommodation, or tickets discounts, and so on. For instance, Sinology is very popular in China in recent years. Designing cultural tour, educating students on the knowledge of history, tourism, security and self-protection, so as to enhance their travel experience in the journey. It can not only make Gen Z students enjoy the travel, and improve their personal capability, but also gain more knowledge and inherit the valuable and traditional culture.

This study validates the framework of TPB again and fills the gap of using TPB to study the travel intention of Gen Z. It is important that this study offers meaningful insights into a model for predicting the travel intention of Gen Z. The results of this study show good predictive validity. To the author's knowledge, there is no other study has suggested that PBC has little effect on Gen Z's travel intention.

Although this study offers useful insight into the travel intention of Gen Z, some limitations should be taken into account, which need to be further studied and discussed in the future. Firstly, the sample data was collected in a specific area. Therefore, the results of this study should be applied cautiously in other regions. Expanding the scope of survey and samples in the future study is necessary. Secondly, this study did not consider other influencing factors [52], [53] beyond the TPB basic framework, which

can be further studied in the future.

7. REFERENCES

- [1] World Tourism Organization. 2019. *International Tourism Highlights, 2019 Edition*, UNWTO, Madrid. DOI: <https://doi.org/10.18111/9789284421152>.
- [2] Deqin, L.; Hui, Y.; and Haihui, Q. 2019. Research and analysis on college students' travel behavior: Taking Fujian Jiangxia College as an example. *Shangye Jingji* 5(513): 172-176.
- [3] Giunta, C. 2017. An emerging awareness of generation Z students for higher education professors ©. *Archives of Business Research* 5(4): 90-104.
- [4] Verma, D.; Bhardwaj, R.; and Sachan, R. 2019. The characteristic behavioural traits of generation-Z a study in rural demography set up of India, Sonbhadra, U.P.. *Journal of Management* 6(1): 55-61.
- [5] Salleh, M. S. M.; Mahbob, N. N.; and Baharudin, N. S. 2017. Overview of "generation Z" behavioural characteristic and its effect towards hostel facility. *International Journal of Real Estate Studies* 11(2): 59-67.
- [6] A. Turner. 2015. Generation Z: Technology and social interest. *The Journal of Individual Psychology* 71(2): 103-113.
- [7] Sriprom, C.; Rungswang, A.; Sukwitthayakul, C.; and Chansri, N. 2019. Personality traits of Thai gen Z undergraduates: Challenges in the efl classroom? *PASAA* 57: 165-190.
- [8] Francis, T.; and Hoefel, F. 2018. The influence of Gen Z - the first generation of true digital natives - is expanding. *McKinsey&Company*. Retrieved October 22, 2020, from the World Wide Web: <https://www.mckinsey.com/industries/consumer-packaged-goods/our-insights/true-gen-generation-z-and-its-implications-for-companies>.
- [9] Robinson, V. M.; and Schänzel, H. A. 2019. A tourism inflex: Generation Z travel experiences. *Journal of Tourism Futures* 5(2): 127-141.
- [10] Qi, S.; and Leung, R. 2018. *The search for Kenya: How Chinese-Speaking generation Z does its online travel planning*. In *Information and Communication Technologies in Tourism 2018* (106-116): Springer, Cham.
- [11] Yibo, C. 2018. Characteristics and coping strategies of the lifestyle of "Generation Z" college students. *University Logistics Research* (5): 80-83.
- [12] Armitage, C. J.; and Conner, M. 2001. Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology* 40(4): 471-499.
- [13] Ajzen, I. 1991. The theory of planned behavior. *Organizational Behavior and Human Decision Processes* 50(2): 179-211.
- [14] Borhan, M. N.; Ibrahim, A. N. H.; Miskeen, M. A. A.; Rahmat, R. A. O. K.; and Alhodairi, A. M. 2017. Predicting car drivers' intention to use low-cost

- airlines for intercity travel in Libya. *Journal of Air Transport Management* 65: 88-98.
- [15] Elliott, M. A.; Armitage, C. J.; and Baughan, C. J. 2007. Using the theory of planned behaviour to predict observed driving behaviour. *British Journal of Social Psychology* 46(1): 69-90.
- [16] Xinying, K. 2019. A study on the characteristics of college students' travel behavior - A case study of college students in Zhengzhou. *Vacational Tour* 4: 165-167.
- [17] Nguyen, V. H.; Truong, T. X. D.; Pham, H. T.; Tran, D. T.; and Nguyen, P. H. 2021. Travel intention to visit tourism destinations: A perspective of generation Z in Vietnam. *Journal of Asian Finance, Economics and Business* 8(2): 1043-1053.
- [18] Vukic, M.; Kuzmanovic, M.; and Kostic Stankovic, M. 2015. Understanding the heterogeneity of generation Y's preferences for travelling: A conjoint analysis approach. *International Journal of Tourism Research* 17(5): 199-216.
- [19] Xinming, D. 2012. Consumers' ethical purchasing intention in Chinese context: Based on TPB perspective. *Nankai Business Review* 15(3): 22-32.
- [20] Maichum, K.; Parichatnon, S.; and Peng, K. C. 2016. Application of the extended theory of planned behavior model to investigate purchase intention of green products among Thai consumers. *Sustainability (Switzerland)* 8: 1-20.
- [21] Liao, C.; Zhao, D.; and Zhang, S. 2018. Psychological and conditional factors influencing staff's takeaway waste separation intention: An application of the extended theory of planned behavior. *Sustainable Cities and Society* 41: 186-194.
- [22] Dion, P.; Easterling, D.; and Miller, S. J. 1995. What is really necessary in successful buyer/seller relationships? *Industrial Marketing Management* 24: 1-9.
- [23] Wang, J.; and Ritchie, B. W. 2012. Understanding accommodation managers' crisis planning intention: An application of the theory of planned behaviour. *Tourism Management* 33(5): 1057-1067.
- [24] Verma, V. K.; and Chandra, B. 2018. An application of theory of planned behavior to predict young Indian consumers' green hotel visit intention. *Journal of Cleaner Production* 172: 1152-1162.
- [25] Meng, F.; Zhang, P.; and Pan, B. 2015. Examination of an extended Theory of Planned Behavior model on overseas tourism shopping. *Travel and Tourism Research Association: Advancing Tourism Research Globally*. 23.
- [26] Maria Gstaettner, A.; Rodger, K.; and Lee, D. 2017. Visitor perspectives of risk management in a natural tourism setting: An application of the Theory of Planned Behaviour. *Journal of Outdoor Recreation and Tourism* 19: 1-10.
- [27] Hongliang, Q. 2017. Developing an extended theory of planned behavior model to predict outbound tourists' civilization tourism behavioral intention. *Tourism Tribune* 32(6): 75-85.
- [28] Shuai, L. 2010. A influence study of study tour of tourists' attitudes and behavioral intentions - A case study of 2008\2009 Overseas Chinese kids winter camp in Hunan. *Hunan Normal University* 1-100.
- [29] Kraus, S. J. 1995. Attitudes and the prediction of behavior: A meta-Analysis of the empirical literature. *Personality and Social Psychology Bulletin* 21(1): 58-75.
- [30] Mannetti, L.; Pierro, A.; and Livi, S. 2004. Recycling: Planned and self-expressive behaviour. *Journal of Environmental Psychology* 24(2): 227-236.
- [31] Chiou, L.-R.; and Wang, M.-Z. 2013. The effects of subjective norm, behavior attitude and perceived behavior control of canoe pole players towards their behavior intention. *Education and Sports Education, LNMS* 13: 646-651.
- [32] Park, H. S. 2000. Relationships among attitudes and subjective norms: Testing the theory of reasoned action across cultures. *Communication Studies* 51(2): 162-175.
- [33] Perri, C.; Giglio, C.; and Corvello, V. 2020. Smart users for smart technologies: Investigating the intention to adopt smart energy consumption behaviors. *Technological Forecasting and Social Change* 155: 119991.
- [34] Song, F. 2011. The studies on influential mechanism of leisure tourism behavioral intention based on the theory of planned behavior-Taking the citizens of Changsha as an Example. *Hunan Normal University* 1-75.
- [35] Hongliang, Q. 2016. Study on the relationship between moral norm and tourists' civilization tourism behavioral intention: An extended theory of planned behavior model. *Zhejiang Social Sciences* 3: 96-103.
- [36] Al-Rafee, S.; and Cronan, T. P. 2006. Digital piracy: Factors that influence attitude toward behavior. *Journal of Business Ethics* 63(3): 237-259.
- [37] Lingqiang, Z.; Qiucheng, L.; and Lin, Z. 2014. Outcome efficacy, people-destination affect, and tourists' environmentally responsible behavior intention: A revised model based on the theory of planned behavior. *Journal of Zhejiang University (Humanities and Social Sciences)* 44(2): 88-98.
- [38] Kraft, P.; Rise, J.; Sutton, S.; and Røysamb, E. 2005. Perceived difficulty in the theory of planned behaviour: Perceived behavioural control or affective attitude? *British Journal of Social Psychology* 44(3): 479-496.
- [39] Heirman, W.; and Walrave, M. 2012. Predicting adolescent perpetration in cyberbullying: an application of the theory of planned behavior. *Psicothema* 24(4): 614-620.
- [40] Bagozzi, R. P.; Lee, K. H.; and Van Loo, M. F. 2001. Decisions to donate bone marrow: The role of attitudes and subjective norms across cultures. *Psychology and Health* 16(1): 29-56.

- [41] Zengtian, Z., & Lingling, W. (2015). Study on the intention to be involved in anti-corruption education from public servants based on the theory of planned behavior (TPB). *Chinese Public Administration* 2: 24-27.
- [42] Han, H.; Hsu, L. T. (Jane); and Sheu, C. 2010. Application of the Theory of Planned Behavior to green hotel choice: Testing the effect of environmentally friendly activities. *Tourism Management* 31(3): 325-334.
- [43] Bashir, S.; Khwaja, M. G.; Turi, J. A.; and Toheed, H. 2019. Extension of planned behavioral theory to consumer behaviors in green hotel. *Heliyon* 5(12): e02974.
- [44] Taylor, S.; and Todd, P. A. 1995. Understanding information technology usage: A test of competing models. *Institute for Operations Research and the Management Sciences, Information System Research* 6(2): 144-176.
- [45] Bagozzi, R. P. 1983. Issues in the application of covariance structure analysis: A further comment. *Journal of Consumer Research* 9: 449-450.
- [46] Thompson, B. 2004. *Exploratory and confirmatory factor analysis: Understanding concepts and applications*. Washington, DC: American Psychological Association.
- [47] Jackson, D. L.; Gillaspay, J. A.; and Purc-Stephenson, R. 2009. Reporting practices in confirmatory factor analysis: An overview and some recommendations. *Psychological Methods* 14(1): 6-23.
- [48] Iacobucci, D. 2010. Structural equations modeling: Fit indices, sample size, and advanced topics. *Journal of Consumer Psychology* 20(1): 90-98.
- [49] Ajzen, I. 2002. Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology* 32(4): 665-668.
- [50] Quan-Haase, A.; and Young, A. L. 2010. Uses and gratifications of social media: A comparison of Facebook and instant messaging. *Bulletin of Science, Technology & Society* 30(5): 350-361.
- [51] Lam, T.; and Hsu, C. H. C. 2006. Predicting behavioral intention of choosing a travel destination. *Tourism Management* 27(4): 589-599.
- [52] Espada, J. P.; Morales, A.; Guillén-Riquelme, A.; Ballester, R.; and Orgilés, M. 2016. Predicting condom use in adolescents: A test of three socio-cognitive models using a structural equation modeling approach. *BMC Public Health* 16(1): 1-10.
- [53] Albarracín, D.; Fishbein, M.; Johnson, B. T.; and Muellerleile, P. A. 2001. Theories of reasoned action and planned behavior as models of condom use: A meta-analysis. *Psychological Bulletin* 127(1): 142-161.
- [54] Hagger, M. S.; Chatzisarantis, N.; and Biddle, S. J. H. 2001. The influence of self-efficacy and past behaviour on the physical activity intentions of young people. *Journal of Sports Sciences* 19(9): 711-725.
- [55] Limei, L.; and Jigang, B. 2000. A study on tourism behavior of college students: the case of Zhongshan University. *Journal of Guilin Institute of Tourism* 11(4): 45-54.