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# **Tourists' Intentions During COVID-19: Push and Pull Factors in Extended Theory of Planned Behaviour**

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# ABSTRACT

The way people travel has been entirely altered by COVID-19. Additionally, past studies reported that tourist behaviour has shifted because of the pandemic. Therefore, tourism management must identify the variables that impact tourists' decisions to travel during COVID-19. However, the problem arises since research into tourist motivation, behaviour, and intention to travel in Southeast Asia is still scarce. In light of this issue, this study aims to bridge the gap by analysing tourists' travel intentions during COVID-19 using the theory of planned behaviour broadened with push and pull factors. An online survey among Indonesians was employed to acquire data using judgment sampling. Three hundred sixtyone surveys were completed, and the data were analysed using the PLS-SEM technique. Based on the findings, only one variable had no significant effect on the intention to travel during COVID-19. Besides that, attitude towards a behaviour was the most potent variable affecting a tourist's decision to travel. Thus, this study contributes both theoretically and practically.

Keywords: Behavioural intention, COVID-19, pull factor, push factor, theory of planned behaviour, tourist

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# **INTRODUCTION**

The novel coronavirus disease 2019 (COVID-19) has affected the global economy, notably tourism, in a substantial manner (Abbas et al., 2021; Neuburger & Egger, 2020). The United Nations World Tourism Organization (UNWTO) has declared that as of April 2020, all tourist destinations worldwide have enforced

ISSN: 0128-7702 e-ISSN: 2231-8534 a travel ban to prevent the spread of the COVID-19 pandemic (UNWTO, 2020). In addition, numerous nations implemented further precautionary measures such as quarantine, physical distancing, and other travel restrictions (Humagain & Singleton, 2021), as these were believed to be the most effective ways to prevent virus transmission between humans (Rahmafitria et al., 2021). Unfortunately, these restrictions had a significant impact on the tourism industry. For instance, once the pandemic hit, people had to cancel or postpone their tourism plans (Ivanova et al., 2020). COVID-19 altered how people travel (Bhrammanachote & Sawangdee, 2021); they started restricting their travels and travelling only when necessary. This new trend made tourist behaviour the primary issue faced by the tourism industry (Pahrudin et al., 2021).

Tourism has struggled with a broad range of tourist behaviours as well as internal and external influences (Yousaf et al., 2018). Ivanova et al. (2020) believed that analysing travel intentions amid COVID-19 would enable the tourism sector to adapt its services to suit shifting market demand. Tourists are initially motivated by their interests (push factors) and, after that, by the tourism destination's attractions (pull factors) (Monoarfa et al., 2022; Soliman, 2019). Therefore, by studying tourists' push and pull motivation, the tourism industry can identify the destination attributes, features, and resources that could be promoted to influence tourists' decision-making process (Bogari et al., 2003; Lam & Hsu, 2006). To appropriately manage the repercussions of COVID-19 and satisfy the tourism market, tourism stakeholders need to determine tourist push and pull motivation and intentions.

Scholars have extensively discussed tourist behaviour during COVID-19. For instance, Han et al. (2020), Liu et al. (2020), and Rahmafitria et al. (2021) extended the theory of planned behaviour (TPB) model with perceived risk variables to capture post-pandemic tourist intentions. Similarly, Pahrudin et al. (2021) studied non-pharmaceutical intervention, public perception of COVID-19, and public health awareness to deduce the tourists' intentions to visit domestic destinations. Several scholars also investigated tourist behaviour amid COVID-19 through tourists' perceived risk (i.e., Joo et al., 2021; Luo & Lam, 2020; Neuburger & Egger, 2020; Perić et al., 2021; Qiu et al., 2020). Li et al. (2020) studied intra-pandemic behaviour to understand Chinese tourists' intentions. Through meta-analysis, Yang et al. (2021) confirmed that most COVID-19 studies emphasised how people perceive and respond to risk, the consequences of tourist behaviour, and the pandemic's effect on tourism. According to those studies, many focus on tourists' perceptions of the risks of travelling during the pandemic and their consequent behavioural responses (Humagain & Singleton, 2021). However, they failed to examine the internal and external motives that drive tourists to travel during COVID-19. It is crucial to get a clear picture of why people travel so that the tourism industry can take measures to improve tourists' levels of satisfaction (Monoarfa et al., 2022). However, past studies leave a gap in the literature in this regard. Tourist motivation during the pandemic remains underexplored and unclear (Roy & Sharma, 2020).

Given the scarcity of studies investigating the association between motivational factors and the behavioural intention of tourists (Yousaf et al., 2018), this study will use a novel approach of extended TPB with push and pull factors as one of the accepted motivation theories to investigate tourists' intention during COVID-19. Extended TPB is employed since this model is widely used to study tourist behaviour during pandemics (i.e., Han et al., 2020; Lee et al., 2012; Li et al., 2020; Liu et al., 2020; Pahrudin et al., 2021; Rahmafitria et al., 2021). Push and pull factors study how individuals are driven and drawn to a destination by internal and external variables (Dann, 1977). Based on this study, the main reasons people travel amid the pandemic can be identified. However, although the TPB model can identify the variables that affect people's travel decisions, it cannot determine the main objective and motives that drive them towards the decision. The original TPB model does not gather requisite details on how tourists' attitudes and motivations impact their decision-making process concerning their vacation (Hsu & Huang, 2012). Therefore, it is necessary to incorporate push and pull factors in the TPB model to investigate people's motives to travel amid COVID-19. The application of the TPB model in Southeast Asia is likely to be limited, especially in the context of pandemics (Rahmafitria et al., 2021). Therefore, Indonesia, which serves as Southeast Asia's most prominent tourist destination, has been chosen as the ideal research location for this study.

This study is intended to investigate the push and pull variables impacting Indonesian tourist decisions during COVID-19, using extended TPB considering the above analysis. Given the dynamic nature of the pandemic times, an empirical study on tourist motivation and intentions is required to assist the tourism industry in developing strategies to attract and satisfy tourists. Therefore, the following research questions have been identified to achieve the study objective: (1) What factors determine tourists' travel intentions amid COVID-19? (2) How does the role of push and pull factors in extended TPB influence tourists' behaviour during COVID-19?

This study assists tourism stakeholders by suggesting ideas and best practices for dealing with pandemic-related tourist behaviour. It identifies destination characteristics and resources that influence tourist motivation and intentions during the pandemic. The study uses extended TPB to examine pandemic-related tourist intentions. It enhances the predictive and explanatory power of the TPB framework by integrating new factors and thereby intends to make a valuable contribution to literature.

#### LITERATURE REVIEW

# The Theory of Planned Behaviour (TPB)

The TPB model was proposed for forecasting and describing human behaviour (Ajzen, 1991). Ajzen (1991) defined the TPB model as an advancement of the Theory of Reasoned Action (TRA) that incorporated perceived behavioural control variables. According to the TPB, attitudes and subjective norms cannot adequately reflect behavioural intention; rather, it is impacted by perceived behavioural control (Ajzen, 1991; Ulker-Demirel & Ciftci, 2020). Therefore, the TPB serves as an adequate theoretical model for studying the complexity of human social behaviour (Ajzen, 1991). Furthermore, it has been recognized as a model that can determine the essential components of actual behaviour (Ulker-Demirel & Ciftci, 2020). When people have an intense tendency to do something, the chance of that behaviour being carried out is also high.

Principally, TPB explains the intention of an individual to execute a particular behaviour according to their belief, norms, and self-control (Madden et al., 1992). As illustrated in Figure 1, the TPB framework was constructed from three antecedent variables of behavioural intention—attitude, subjective norm, and perceived behavioural control (Ajzen, 1991). Attitude describes how pleasant or unpleasant an individual's behaviour is. The consequences of a person's actions are reflected through positive or negative attitudes in the receiver's behaviour. In the tourism context, attitude is a reaction or emotion towards tourist destinations or services depending on perceived product characteristics (Lam & Hsu, 2006). Subjective norm defines how individuals deal with pressure from society in deciding whether to be involved in a particular behaviour or not. It is associated with considering the thoughts or judgments of others while carrying out the behaviour (Ulker-Demirel & Ciftci, 2020). Finally, perceived behavioural control is the degree of ease or complexity with which an individual executes behaviour. It can be assumed that people will have a low intention to engage in a behaviour if they feel that they have little or no control over it due to a lack of various conditions. Therefore, the relevance of these factors in influencing behavioural intentions differs depending on the context (Ajzen, 1991).

The TPB framework has been facilitating the broad study of human behaviour for over a decade now (Ulker-Demirel & Ciftci, 2020). Furthermore, this framework was exclusively used in the literature on the hospitality and tourism sectors (i.e., Bianchi et al., 2017; Chien et al., 2012; Han et al., 2017; Juschten et al., 2019; Kuo & Dai, 2012; Meng et al., 2020; Ong & Musa, 2011; Soliman, 2019). During global health crises, especially COVID-19, some studies used TPB to reveal the tourist intentions amidst the pandemic (i.e., Han et al., 2020; Li et al., 2020; Seong & Hong, 2021). TPB is an efficient framework for studying people's destination preferences and behaviours (Han et al., 2020). The more enthusiastic someone is to travel, the more likely they will travel.

Tourists' Intention During COVID-19

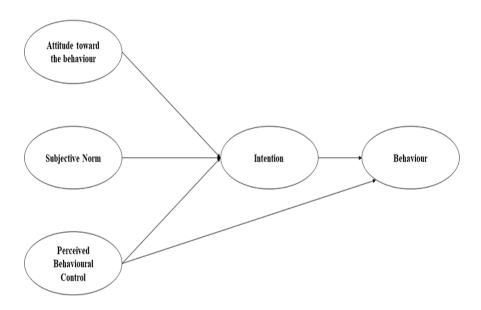


Figure 1. The model of the theory of planned behaviour (Ajzen, 1991)

Therefore, TPB was confirmed as a practical framework that can be used for describing the decision-making process of tourist travel during a pandemic.

## **Push and Pull Factors**

The two types of tourist motivations are referred to as "push" and "pull" factors (Monoarfa et al., 2022). It is yet another generally acknowledged theoretical framework in a tourism-related study (Yousaf et al., 2018). Dann (1977) initiated the discussion of the constructs of push and pulled in the tourism context. The different situations in which an individual would travel are outlined in the push and pull factors. Giddy (2018) defines the push factor as certain internal elements of an individual desiring a tourist experience and the pull factor as an external aspect that motivates the individual to choose that experience. X. Wang et al. (2020) explain that push factors are internal desires embodied by socio-psychological motives representing a person's wishes that push them towards certain goal-driven behaviours. Therefore, it can be concluded that, while push factors explain people's drive to travel, pull factors influence their choice of the actual destination (Bayih & Singh, 2020; Lam & Hsu, 2006; Yousaf et al., 2018).

Tourism studies have thoroughly explored push and pull factors (Allan, 2014; Bayih & Singh, 2020; Dann, 1981; Urbonavicius et al., 2017; Wijaya et al., 2018; Yousaf et al., 2018). Analysing push and pull factors can provide valuable insights into the internal and external elements that motivate people to visit a tourist attraction. It can help tourism management segment their market, plan advertising programmes or packages, and offer destination services

that would appeal to tourists (Bogari et al., 2003; Yousaf et al., 2018). Therefore, it is necessary to scientifically evaluate tourists' push and pull factors to assist tourism management in identifying the destination attributes, features, and resources that need to be promoted to attract tourists to the destinations (Lam & Hsu, 2006). Tourism management can identify tourists' needs and expectations of tourist destinations, especially during a pandemic. In this manner, if tourist satisfaction is achieved, they will share their experience with others and desire to revisit the destination (Bayih & Singh, 2020). However, studies exploring the push and pull factors that influence tourists during COVID-19 are still limited (Roy & Sharma, 2020). Tourism management does not have sufficient scientific information on "why people want to travel during a pandemic?" Therefore, the current study examines the push and pull factors that influence tourists' travel decisions during COVID-19.

# The Proposed Extended Theory of Planned Behaviour

The extended TPB model was developed to address the study's primary objective. TPB has been widely extended with other constructs in tourism and hospitality literature to examine people's tourism intentions and behaviour (Ulker-Demirel & Ciftci, 2020). Other antecedents that substantially impact tourists' intentions in choosing tourism destinations were also discovered (Meng et al., 2020). Tourist motivation has long been a focus of tourism study, as it is the first step of travel behaviour analysis (Monoarfa et al., 2022; Soliman, 2019). However, very few studies have examined the relationship between tourist motivation and attitude (Hsu & Huang, 2012; Soliman, 2019; Ulker-Demirel & Ciftci, 2020; Yang et al., 2021). Studying motivational factors can help tourism marketers segment their markets (Bogari et al., 2003) and satisfy the tourists (Seyitoğlu & Davras, 2022). Therefore, this study analyses push and pull motivation factors and their role in influencing the attitude and behaviour intention of tourists in the TPB model, as studies that reveal the role of intrinsic (push) and extrinsic (pull) motivation in consumer behaviour are not well-documented thus far (Chi & Phuong, 2021).

An individual's attitude towards a behaviour reflects the individual's cognitive reaction to perform the particular behaviour (Ajzen, 1991; Fishbein & Ajzen, 1975). Therefore, attitude considers human behaviour a critical factor in the TPB model (Song et al., 2017). Huang et al. (2019) and Soliman (2019) report that attitude significantly impacts behavioural intention to revisit tourism destinations. Similarly, future behavioural intentions of tourists in the post-pandemic period were also influenced by attitude (Han et al., 2020; Pahrudin et al., 2021; Rahmafitria et al., 2021). Studies have shown that people still have a positive attitude to travel amid the pandemic. Based on this understanding, we have generated the hypothesis related to attitude and behavioural intention as follows:

H<sub>1</sub>. Attitude is positively related to behavioural intention for tourism during COVID-19.

Subjective norm is another significant determinant of human behaviour. In TPB, the subjective norm is hypothesised to affect behavioural intention (Ajzen, 1991). However, while some studies indicate that there is no association between subjective norm and behaviour intention (Huang et al., 2019; Meng et al., 2020; Pahrudin et al., 2021), few others assert that subjective norm positively influences tourist intention during COVID-19 (Han et al., 2020; Li et al., 2020; Rahmafitria et al., 2021). Hence, we postulate that people will consider the opinions of others when deciding to travel amid COVID-19 and present our hypothesis of the correlation between subjective norm and behaviour intention as follows:

H<sub>2</sub>. Subjective norm is positively related to behavioural intention for tourism during COVID-19.

Perceived behavioural control implies how far a person believes they can influence themselves to execute a behaviour (Conner & Abraham, 2001). People are more likely to act when they have the money, time, chance, or opportunities to execute that behaviour. For example, behavioural control was observed to have substantially affected tourists' environmental responsibility behaviour (C. Wang et al., 2019). Similarly, an association between perceived behavioural control and behaviour intention was observed in creative tourism (Huang et al., 2019), choosing beach-based destinations (Chien et al., 2012), and during the COVID-19 pandemic (Han et al., 2020; Li et al., 2020; Pahrudin et al., 2021; Rahmafitria et al., 2021). Based on these studies, we infer that if people have sufficient resources to travel amid pandemics, they are more likely to do so. We thereby posit the hypothesis as follows:

 $H_{3.}$  Perceived behavioural control is positively related to behavioural intention for tourism during COVID-19.

Push and pull factors are proposed as additional constructs in the current extended TPB model. Earlier studies have reported that motivation significantly affects attitude and behavioural intention (Chien et al., 2012; Soliman, 2019). Also, some scholars have successfully used push and pull-off dimensions to describe the purpose of travelling (Chi & Phuong, 2021; Hsu & Huang, 2012; Lam & Hsu, 2006; Seyitoğlu & Davras, 2022). For example, Lam and Hsu (2006) reported that push and pull factors were positively associated with attitudes towards selecting tourism destinations in Hong Kong. Similarly, Taiwanese push factors (i.e., knowledge, relaxation, novelty, and shopping) were significantly positively associated with the tourists' attitude towards selecting a tourist destination (Hsu & Huang, 2012). In contrast, only the shopping factor statistically influenced behavioural intention (Hsu & Huang, 2012).

On the other hand, Bayih and Singh (2020) found that both push and pull factors

statistically influenced the revisit intention of tourists concerning tourism destinations in Ethiopia. These studies indicate that push and pull factors have a role in driving and influencing people's cognitive behaviour to travel or visit a tourism destination. They can enhance the likelihood of an individual taking up a tour. Based on this inference, we developed our hypotheses for push and pulled factors in TPB as follows:

 $H_{4a}$ . Push factors are positively related to behavioural intention for tourism during COVID-19.

 $H_{4b}$ . Attitude significantly mediates the relationship between push factors and behavioural intention for tourism during COVID-19.

 $H_{5a}$ . Pull factors are positively related to behavioural intention for tourism during COVID-19.

 $H_{5b}$ . Attitude significantly mediates the relationship between pull factors and behavioural intention for tourism during COVID-19.

The proposed extended TPB of the current study is illustrated in Figure 2. This model was developed to increase the explanatory power of TPB in predicting tourist intentions to travel amid COVID-19. The additional constructs of push and pull factors are expected to enhance people's likelihood of taking up tourism during a pandemic. The push factors examined in this study are an escape from routine life and relaxation. Facilities, cleanliness, and tourism activities are the pull factors examined in this study. These factors were chosen as they were the most significant dimensions analysed in previous studies.

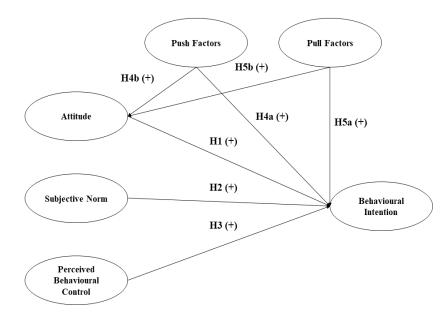


Figure 2. The proposed extended theory of planned behaviour

#### **METHODS**

A quantitative approach was used to examine the association among the constructs in the proposed model. Cross-sectional data were collected to investigate tourists' intentions amid COVID-19. A survey was used to collect the primary data for the study.

## **Sampling and Data Collection Procedure**

The target population of the current study is Indonesians who are spread all over Indonesia and willing to travel amid COVID-19. The sample was chosen through judgment sampling. This technique was chosen because it allows us to employ our judgment to select the best possible sample that would help attain this study's aim (Saunders et al., 2009). Another reason why this sampling method was chosen is that the current study requires the sample to fit several criteria. First, the study participants must be Indonesians who reside in Indonesia and are over 18 years. We presume that people over 18 can make travel decisions independently. Moreover, we wanted to select travel enthusiasts for this study, as they would be the most likely people who would want to travel despite the pandemic.

Due to the pandemic, researchers could not interact personally with the respondents. Therefore, an online survey was conducted in April 2021 to collect the primary data. A self-administered questionnaire was created using Google Forms and sent out to the target population over social media through various channels such as WhatsApp, Facebook, and Instagram. The introduction statement of the questionnaire detailed the eligibility criteria for participation in the study. We invited people who met the eligibility criteria to fulfil the questionnaire voluntarily. A total of 366 responses were collected. Out of these, five had to be discarded as they were unfinished. Finally, the study data comprised 361 valid questionnaires. According to the inverse square root method for the Partial Least Square-Structural Equation Model (PLS-SEM) proposed by Kock and Hadaya (2018), the minimum sample size required for a 5% significance level and 0.2 path coefficient is 155 (Hair et al., 2021). Our study data met this condition, as we got 361 responses, which is more than the minimum required number of 155.

# Questionnaire and Measurement Instrument Development

The objective of the research questionnaire was to measure the behavioural intention of tourists to travel during COVID-19. It consisted of an introduction, a socialdemographic section, and a section to measure the observed variables. In the introduction part, the survey's aim was conveyed, after which the respondents were asked to fulfil the questionnaire voluntarily, without any coercion. The social-demographic section requested information about the participants' gender, age, educational background, and travel companion. Following the technique of Brislin (1970) to ensure equivalence between original and translated measures, the measurement items were provided to the respondents in bilingual (Bahasa Indonesia and English) terms, and a pre-test was conducted to assess the respondents' equivalence in responses.

The questionnaire consisted of 25 items (see Appendix A). Five of these items evaluated push motivation factors (i.e., escape from daily routine, the work and life pressure, relaxation, recharge of mental and physical states, and enjoying time with family or friends). These items were adapted from past studies (Allan, 2014; Bayih & Singh, 2020; Urbonavicius et al., 2017; Wijaya et al., 2018). The pull factors were evaluated using six items adapted from Allan (2014) and Bayih and Singh (2020). These items were about the dimensions of hygiene standards, CHSE (Clean, Health, Safety, and Environment Sustainability) certificate ownership, destination affordability, the comfort of the place, and availability of culinary variety. The measurement items related to TPB variables were adapted from Lee et al. (2012) and Das and Tiwari (2020). This section consisted of four items related to attitude (ATT), three items related to subjective norms (SN), three items related to perceived behavioural control (PBC), and four items related to behavioural intention (BI). A five-point Likert scale assessed all the observed variables (1 = strongly)disagree, 5 = strongly agree). All the items were constructed bearing in mind the COVID-19 considerations.

A pilot study involving 20 respondents was done to evaluate the reliability and validity of the measurement items (Saunders et al., 2009; Srinivasan & Lohith, 2017; Whitehead et al., 2016). Master's Students were selected as the respondents for the pilot study, as they were expected to be qualified to give useful feedback and input on the measurement items. This selected group fits the target population criteria as they mostly like to travel, and their average age is between 21-25 years, which is above the set criteria of 18 years. Moreover, they represent most Indonesian tourist characteristics during COVID-19 (BPS-Statistics Indonesia, 2020). After respondents completed the questionnaire, they were asked about their experience filling out the questionnaire and whether there were any ambiguous statements. In addition, expert judgement from academicians and practitioners in management and tourism was conducted to get feedback regarding the relevance of measurement items. According to the reliability test, three pull factor items were identified to have reliability values under 0.3. These items were eliminated following De Vaus' (2002) recommendation to remove items that had recorded a reliability value of less than 0.3 in the pilot study (Hazzi & Maaldaon, 2015). The study data was collected using the remaining 22 measurement items.

#### **Data Analysis**

The primary data was analysed and evaluated quantitatively using PLS-SEM with SmartPLS 3.0 (Ringle et al., 2015). The purpose of PLS-SEM is to explore or extend the existing theoretical framework (Hair et al., 2014). Therefore, this method was considered appropriate as the present study aims to employ extended TPB to investigate the factors affecting tourists'

# travel behaviour during COVID-19. Moreover, PLS-SEM is recommended for non-normal data distribution (Hair et al., 2021).

As the first step of the analysis, the responses related to the socio-demographic items were explored using descriptive statistics. Next, the measurement model test was used to evaluate the validity and reliability of the research instruments. The test evaluated outer loading, composite reliability (CR), average variance extracted (AVE), coefficient of determination (R<sup>2</sup>), and discriminant validity (the heterotrait-monotrait [HTMT] ratio) (Ab Hamid et al., 2017; Hair et al., 2014). Finally, the structural model test was used to assess whether the hypotheses were to be accepted or rejected (Hair et al., 2014).

#### RESULTS

#### **Profile of Respondents**

Table 1 contains the respondents' profile information. Females dominated the respondent population at 68%, while the males were 42%. More than half (n=227,63%) of the respondents were below or equal to 25 years old. According to the Statistics Indonesia report released in 2020, 41.91% of the nation's domestic tourists during COVID-19 were less than 25 years old (BPS-Statistics Indonesia, 2020). Based on this statistic, we can infer that the sample population was representative of the target population, as most of the members in the sample population were under 25 years old. In addition, 71% of the respondents hold a bachelor's degree. During COVID-19, many respondents reported that they preferred to travel with their family (53%) and friends (39%). The rest of the respondents expressed that they intended to travel alone or with another companion.

<b>Demographic Profiles</b>	Total	Percentage
Gender		
Male	117	32%
Female	244	68%
Age Range		
18–20	11	3%
21–25	217	60%
26–30	82	23%
31–35	25	7%
36–40	15	4%
>41	11	3%

# Table 1

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<b>Demographic Profiles</b>	Total	Percentage
Education Background		
High School	22	6%
Diploma	34	9%
Bachelor's degree	257	71%
Post Graduated	46	13%
Others	2	1%
Travel Companion		
Alone	24	6%
Family	191	53%
Friends	140	39%
Others	6	2%

Table 1 (Continue)

Note. N=361

#### **Measurement Model**

The reliability and validity of the observed variables were evaluated using the measurement model. It revealed that one instrument of pull factor (PULL3), which is the availability of culinary variety, had an outer loading value under 0.50. So, it was dropped from the analysis following the guideline given by Hair et al. (2014), which says that items with outer loading of less than 0.50 could be removed to preserve the Cronbach alpha value criterion. It implies that the availability of culinary variety was not reliable in explaining the pull factors. The given data (see Table 2) confirms that all other measurement items' outer loading ( $\lambda$ )

was more than 0.50 and met the minimum loading factor criterion. In other words, all latent variables can be adequately explained by their observed variable.

The Cronbach's Alpha ( $\alpha$ ) values for all items ranged from .620 to .935, higher than the .60 threshold recommended by Hair et al. (2014). All CR values were also above 0.70. These results prove that the model's internal consistency is reliable (Hair et al., 2014; Sekaran & Bougie, 2016). In addition, the AVE value of the latent variables was higher than 0.50, indicating that the variables were significantly convergentvalid (Hair et al., 2014).

Code	λ	α	CR	AVE
PUSH 1	0.820	965	0.996	0 (11
PUSH 2	0.798	.865	0.886	0.611

Table 2The results of the measurement model

#### Tourists' Intention During COVID-19

Code	λ	α	CR	AVE
PUSH 3	0.828			
PUSH 4	0.767			
PUSH 5	0.684			
PULL 1	0.876	.801	0.907	0.830
PULL 2	0.835	.801	0.907	0.850
ATT 1	0.864			
ATT 2	0.867	.896	0.927	0.762
ATT 3	0.865	.890	0.927	0.702
ATT 4	0.895			
SN 1	0.891			
SN 2	0.935	.896	0.935	0.828
SN 3	0.904			
PBC 1	0.805			
PBC 2	0.763	.620	0.796	0.566
PBC 3	0.683			
BI 1	0.930			
BI 2	0.934	025	0.054	0 0 2 0
BI 3	0.921	.935	0.954	0.838
BI 4	0.876			

Note. λ=Outer Loading, α=Cronbach's Alpha, CR=Composite Reliability, AVE=Average Variance Extracted

The discriminant validity results determined using the HTMT correlation ratio are presented in Table 3. According to Ab Hamid et al. (2017), this technique is recommended because its sensitivity rate is higher than other discriminant validation approaches (e.g., cross-loading and Fornell

Table 2 (Continue)

& Larcker criterion). Furthermore, the HTMT value of each construct was under 0.85, which implies that each construct's discriminant validity was acceptable (Ab Hamid et al., 2017). Hence, the actual relationship between the two variable constructs was error-free.

	PUSH	PULL	ATT	SN	PBC	BI
PUSH						
PULL	0.491					
ATT	0.558	0.359				
SN	0.403	0.359	0.763			
PBC	0.434	0.422	0.728	0.668		
BI	0.557	0.308	0.685	0.569	0.615	

Table 3	
The resul	ts of discriminant validity (Heterotrait-monotrait ratio)

T 1 1 2

Note. ATT=Attention, BI=Behavioural Intention, PBC=Perceived Behavioural Control, SN=Subjective Norm

Later, each latent variable's variance inflation factor (VIF) was assessed to check the collinearity. Collinearity is said to be present if the VIF values are equal to or more than 5 (Hair et al., 2021). As provided in Table 4, all latent variables had VIF values less than 5, indicating collinearityfree. This evaluation also proved that the model was free of common method bias, as the full collinearity VIF was below 3.3 (Kock, 2015).

Table 4The Variance Inflation Factor (VIF)

	ATT	SN	PBC	PUSH	PULL
ATT				1.194	1.194
BI	2.363	2.004	1.574	1.458	1.271

Note. ATT=Attention, BI=Behavioural Intention, PBC=Perceived Behavioural Control, SN=Subjective Norm

The  $R^2$  of the behavioural intention for travelling during COVID-19 was 0.470. The antecedents' variables of behavioural intention in the current extended TPB model have moderate power (47%; Hair et al., 2014) to predict tourists' intention to travel amidst COVID-19. Other factors not studied in the current study can support the remaining predictions.

## **Structural Model**

The hypothesis testing of the proposed model was done using the structural model. The significance level (p-value) and confidence interval (CI) were considered to evaluate the hypotheses. As reported in Table 5, six hypotheses (i.e.,  $H_1$ ,  $H_2$ ,  $H_3$ ,  $H_{4a}$ ,  $H_{4b}$ , and  $H_{5b}$ ) were accepted, while one ( $H_{5a}$ ) was rejected. Attitude and travel intention had the most salient correlation compared to the other variables, followed by the relationship between push and behavioural intention. Additionally, the push factor was significantly associated with intention over attitude towards behaviour. In this manner, attitude successfully mediated the push factor and travel intention amidst COVID-19. However, there was an insignificant correlation between the pull factor and behavioural intention since the p-value was greater than 0.05. Besides this, the attitude was observed to mediate between the pull factor and tourist intention statistically. Next, the control variables were tested to assess the correlation between age, gender, and education with tourists' intentions. As reported in Table 5, there was no correlation between these control variables and the intention to travel amid COVID-19. In other words, the sociodemographic profile did not affect travel intentions during COVID-19.

Table 5The results of the structural model and hypothesis testing

Paths	β	T Statistics	P-value	Confidence Interval (95%)		Decisions
				Lower	Upper	-
ATT→BI	0.341	5.581	.000***	0.218	0.439	H <sub>1</sub> Accepted
SN→BI	0.140	2.265	.012*	0.042	0.248	H <sub>2</sub> Accepted
PBC→BI	0.133	2.533	.006*	0.050	0.226	H <sub>3</sub> Accepted
PUSH→BI	0.248	4.838	.000***	0.163	0.333	$\mathrm{H}_{4a}$ Accepted
PUSH→ATT→BI	0.150	4.418	.000***	0.090	0.203	${\rm H}_{4b}$ Accepted
PULL→BI	-0.019	0.414	.339 <sup>ns</sup>	-0.100	0.056	H <sub>5a</sub> Rejected
PULL→ATT→BI	0.046	2.177	.015*	0.012	0.086	${\rm H}_{\rm 5b}$ Accepted
Control Variable Test						
Age→BI	-0.053	1.392	.082 <sup>ns</sup>	-	-	-
Gender→BI	-0.000	0.011	.496 <sup>ns</sup>	-	-	-
<b>Education</b> → <b>BI</b>	0.034	0.977	.164 <sup>ns</sup>	-	-	-

*Note*. <sup>ns</sup>p-value>.05, \*p-value<.05, \*\*p-value<.005, \*\*\*p-value<.001

Lam and Hsu (2006) reported that pull factors are correlated with behavioural intention, while attitude failed to mediate pull factors and the intention to travel among Taiwanese. As per the current study, the attitude seems to play a critical role in influencing people to travel amid COVID-19. Although tourist destinations' attributes and resources may not influence people's decision to visit a destination directly, they will impact people's attitude in deciding whether to travel or not during COVID-19.

# **Theoretical Contribution**

Following Ajzen's (1991) and Ulker-Demirel and Ciftci's (2020) suggestions to extend the TPB model using other constructs, this study confirms that the extended TPB model with push and pull motivation factors is useful in predicting tourist intentions during a pandemic. Furthermore, apart from the significant role of push and pull factors in affecting tourists' decision-making process, the additional constructs considered in this study also played a major role in providing more variance for predicting people's behavioural intention. Overall, the proposed extended model and results of the current empirical study contribute strongly to the extended TPB body of knowledge. However, very few studies have demonstrated the role of motivation theory in TPB.

## **Practical Contributions**

Tourism management must design and create a positive image to encourage tourists

by emphasising the necessity and value of travelling during COVID-19, considering the fundamental role of attitude in the travel decision-making process during a pandemic. Furthermore, tourism management and the government must ensure tourists' safety and comfort by implementing strict health protocols and other COVID-19 mitigation measures.

Another finding reports that people with sufficient funds and time will invest those resources to travel during the pandemic. Moreover, around 80% of the study sample were aged 21-30 years. It shows that this age range is more likely to become tourists. For this reason, tourism management should segment its markets based on this age range and attempt to understand their characteristics. Then, tourism can effectively adjust its attributes and resources to encourage people to visit their destinations.

Opinions from other communities were also observed to play a role in tourists' decision-making process regarding their travel. More than half of the study population indicated that they preferred to travel with their family and friends. Therefore, if the tourism industry provides excellent service to satisfy its visitors, it can generate a positive word of mouth (WoM) to encourage others to travel. Next, tourism management should consider incorporating exciting activities that can be done individually or in groups to keep tourists entertained and help them break out of their daily routine. The most valuable push factors that drove people to travel during the COVID-19 pandemic were getting away from the daily routine and relaxing in tourist destinations. Moreover, it is also necessary for tourism to build an atmosphere wherein people can relax and enjoy quality time with their family or friends to recharge their mental and physical state. A staycation package for a family or group in a hotel and a private travel package to visit some destinations within the city with strict health protocols are some strategies that tourism management can adopt to attract more visitors.

# Limitations and Recommendations for Further Research

The current study has certain limitations and recommendations for future studies. First, considering the moderate power of the proposed model in predicting tourist behaviour, adding a new construct to this model is suggested to enhance the predictive power of the study. In addition, it is necessary to explore variables that can influence subjective norms and perceived behavioural control and improve their capability to affect tourists' decision-making process concerning travel. Second, the actual behaviour of tourists was not yet revealed in the current study. Therefore, the researchers suggest that future studies include an actual behaviour variable and confirm if the actual behaviour conforms to previous tourist behaviour intention studies using a longitudinal study. Third, given the scarce study of push and pull factors in extended TPB, assessing the current proposed model for other consumer behaviour studies is recommended.

#### CONCLUSION

The primary objective of this study was to use extended TPB to investigate push and pull factors that determine Indonesian tourists' decision to travel during COVID-19. Overall, the study's findings successfully addressed the research questions and achieved the study objective. Six of the seven hypotheses were found to be acceptable. Statistical results reveal that all the antecedent variables in the original TPB considerably affected tourists' intention to travel during COVID-19. The travel decision-making process among Indonesians is influenced by attitude, subjective norms, perceived behavioural control, and push factors; the push and pull factors were observed to affect tourists' attitudes substantially. Compared to perceived behavioural control and subjective norm, attitude is the most salient predictor. The more people believe that travelling during the pandemic is beneficial and essential, the greater their likelihood of travelling. Besides, external factors such as opinions of others and sufficient resources for travelling also play a role in the travel decision-making process of tourists amid pandemics. In terms of extended variables of push and pull factors, these constructs enhance tourist intention for tourism during a pandemic. There is a strong correlation between push factors, attitude, and travelling intention. Even though pull factors fail to influence behaviour intention, attitude successfully mediates the pull factors and travel intention. In other words, the intrinsic motive seems to have more power to influence people's decisionmaking process regarding travel.

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# APPENDIX A Measurement Items

Code	Statement
PUSH 1	I'm traveling during COVID-19 to escape from my daily routine
PUSH 2	I'm traveling during COVID-19 to escape from the pressure of work and life
PUSH 3	I'm traveling during COVID-19 to relax and rest at the destination
PUSH 4	I'm traveling during COVID-19 to recharge my mental health and physical state
PUSH 5	I'm traveling COVID-19 to enjoy a happy time with family or friends
PULL 1	I'm visiting a place for tourism during COVID-19 because of its standards of hygiene and cleanliness
PULL 2	I'm visiting a place for tourism during COVID-19 because it implements hygiene and health protocols
PULL 3	I'm visiting a place for tourism during COVID-19 because it provides a variety of culinary*
PULL 4	I'm visiting a place for tourism during COVID-19 because it is affordable*
PULL 5	I'm visiting a place for tourism during COVID-19 because it has CHSE (Cleanliness, Health, Safety & Environment Sustainability) certification from the government*
PULL 6	I'm visiting a place for tourism during COVID-19 because it offers a comfortable place to stay*
ATT 1	I think tourism during COVID-19 is positive
ATT 2	I think tourism during COVID-19 is valuable
ATT 3	I think tourism during COVID-19 is attractive
ATT 4	I think tourism during COVID-19 is beneficial
SN 1	My family and friends think it is okay for me to tourism during COVID-19
SN 2	My family and friends support me in tourism during COVID-19
SN 3	My family and friends understand me for tourism during COVID-19
PBC 1	If I want for tourism, I can do it during COVID-19
PBC 2	I have enough money for tourism during COVID-19
PBC 3	I have enough time for tourism during COVID-19
BI 1	I intend for tourism during COVID-19 soon
BI 2	I'm planning for tourism during COVID-19 soon
BI 3	I will make an effort for tourism during COVID-19 soon
BI 4	I will certainly invest time and money in tourism during COVID-19 soon

Note: \*Item was dropped from further analyses due to outer loading value <0.5