

Motivation and Demotivation of Graduation Travel: A Study in Vietnam with Google Gemini's Support

Tran Thi Bich Hang ¹, Duong Thi Hong Nhung ²

¹Faculty of Hospitality - Tourism, Thuongmai University, Vietnam. Email: tranbichhang@tmu.edu.vn

²Faculty of Hospitality - Tourism, Thuongmai University, Vietnam. Email: nhungksdl@tmu.edu.vn

ARTICLE INFO

ABSTRACT

Received: 01 Dec 2024

Revised: 26 Jan 2025

Accepted: 05 Feb 2025

Research on education and students is abundant. Many researchers have examined students' enrollment, retention, dropout, and other study-, research-, and extra-curriculum-related topics. However, they have essentially neglected students' graduation, especially graduation celebrations. Regarding graduation travel, previous studies have revealed the interactions between the (de)motivators and the actual behaviours; yet, the structure of the (de)motivation and the relative importance of each (de)motivator with student intention was not. Therefore, this study explored the motivation and demotivation of university students regarding graduation travels and the correlations between (de)motivation and student intentions. The study adopted Google Gemini's recommendation of the (de)motivation items and factors (the structure models). It implemented a single case study with Vietnamese students (n=405) to confirm these structure models. The results approved the originally five-factor, fourteen-item model of motivation and the adjusted three-factor, eight-item model of demotivation. Further exploration of the correlations between the (de)motivation factors and student intentions (the correlation models) revealed the essentiality of two motivation factors: celebration and sharing. These outcomes provided methodological implications for using artificial intelligence (AI) in research and practical implications for managing the niche market of graduation travels.

Keywords: graduation travel, (de)motivation, intentions, Google Gemini, Vietnam.

INTRODUCTION

Research on education and students is abundant. Many researchers have examined students' enrollment, retention, dropout, and other study-, research-, and extra-curriculum-related topics (Gao, Khalid, & Tadesse, 2024; Gubbels, van der Put, & Assink, 2019; Tight, 2020). However, they have essentially neglected students' graduation, especially graduation celebrations. Noticeably, graduation is significant to learners because it marks the end of one period and the beginning of another in their lives (Cheong, Sin, & Chang, 2023; Grosemans, De Cuyper, Forrier, & Vansteenkiste, 2023); a shift of focus and goal is expected. Some students may have to change their place of living and other factors due to graduation (Han, Stocking, Gebbie, & Appelbaum, 2015). Thus, understanding students' opinions of graduation celebrations is valuable to educational institutions' administrators and staff in assisting their customers better.

There are several ways to celebrate a graduation. Educational institutions can organize graduation ceremonies, which last several hours, to allow students and their families to gather to celebrate the time spent together (Weiler, et al., 2013). Students can actively participate in the main ceremonies and subsequent events (e.g., banquets) as organizers and display their skills and knowledge (Adame, et al., 2021). In addition, students can take graduation trips (a few days), travel to their favorite tourist destinations, and experience various activities there to commemorate their graduation. For example, Liu and Kirillova (2021) quantitatively examined Chinese students' motivation to travel, including social fulfillment, self-efficacy improvement, escape and relaxation, interest pursuit, and self-esteem enhancement. These authors identified the impacts of some motivation dimensions on students' identity formation but did not reveal these on students' intentions. Alternatively, Cheong, Sin, and Chang (2023) qualitatively surveyed Singaporean students and observed some demotivating factors, particularly the time element. The interactions between the (de)motivators (e.g., the meanings of graduation travel and time) and the actual behaviors were revealed, yet the relative importance of each (de)motivator was not. The literature on this topic is extremely thin and does not provide much preference for educational institutions and travel companies.

An alternative to academic knowledge is provided by artificial intelligence or AI-powered tools such as ChatGPT and Google Gemini (Dwivedi, Pandey, Currie, & Micu, 2024; Mariani & Wirtz, 2023). As language programs, these tools can instantly help synthesize and organize information from different sources available on the Internet to give educational institutions and travel companies convenient references about students' opinions of graduation trips. For example, when asked about the factors that could motivate students to travel to celebrate their graduation, Gemini suggests five dimensions with two to three items per dimension. Similarly, in answering the question concerning the demotivating factors, Gemini recommends other five factors with the same number of items. These suggestions and recommendations reflect multidimensional scales measuring students' motivation and demotivation to participate in graduation trips. Nevertheless, the validity and reliability of these nominal scales cannot be confirmed yet. Using academic procedures to validate AI-generated scales is essential. In addition, the relative importance of each dimension to student intentions to travel cannot be revealed by just looking at the recommendations. Thus, it is necessary to examine the association between these (de)motivators and student intentions. The outcomes of these attempts will provide educational institutions and travel companies with practical implications for using AI-powered tools in the future.

Driven by a developing economy, contemporary Vietnamese students celebrate graduation differently from previous generations. About one million high school students and one quarter million university students graduating each year have created a significant market segment for graduation travels (General Statistics Office, 2021). Nonetheless, little has been known about Vietnamese students' opinions about this issue (Cheong, Sin, & Chang, 2023; Liu & Kirillova, 2021). Understanding the students' (de)motivation and intentions can provide educational institutions and travel companies with practical implications for managing and supporting them.

This study investigates Vietnamese students' (de)motivation and intention to travel to celebrate graduation. Specifically, the study validates the (de)motivation dimensions and components suggested by Google Gemini and verifies the associations between these factors and student intentions. The process initiated by this study will provide implications for incorporating AI-generated knowledge into academic research. The findings will also give educational institutions and travel companies insights into students' graduation celebration behaviours and the factors affecting these behaviours.

LITERATURE REVIEW

1. Students' touristic activities

Students travel for numerous reasons, both internal (adventure and novelty) and external (attraction, escapism, fun, and relationship) (Haddouche & Salomone, 2018; Robinson & Schänzel, 2019). Such reasons somehow reflect the values the students aim at, such as achievement, benevolence, conformity, hedonism, security, self-direction, social recognition, stimulation, tradition, and universalism (Cavagnaro, Staffieri, & Postma, 2018).

Many students prefer travelling as backpackers or flashpackers. Others participate in touristic activities while volunteering or studying (Richards, 2015). Although some students may not regard these experiences as tourism, they can have various sensory, cognitive, emotional, and spiritual encounters during their trips, obtaining many educational benefits (Gallarza, Saura, & Moreno, 2013; Mura, Tavakoli, & Sharif, 2017; Robinson & Schänzel, 2019; Stone & Petrick, 2013).

2. Students' motivators and demotivators to travel

Students are motivated to travel by internal and external factors such as novelty, entertainment seeking, destination attraction, and accountability (Dale & Ritchie, 2020). They are also facilitated by pop culture products (e.g., films) and social media and the information they provide (Hudson, Wang, & Gil, 2011; Shu & Scott, 2014). Research on other traveller populations additionally suggests other potential motivators, such as a sense of accomplishment and transition marking (Li & Cai, 2012; White & White, 2004) and skills development and passions discovery (Alexander, Bakir, & Wickens, 2010; Scarinci & Pearce, 2012).

On the other hand, students are demotivated by several interpersonal, intrapersonal, and environmental factors, including a lack of time and experience, disabilities, travel cost and distance, staff number and willingness, and transportation unavailability (Bizjak, Knežević, & Cvetežnik, 2011; Dale & Ritchie, 2020). Their enthusiasm and inclination toward tourism may be reduced if they have too many choices (Park & Jang, 2013). Students may also rethink their travels when concerned about physical risks (Khan, Chelliah, Khan, & Amin, 2019). Studies on other

groups of tourists further add other demotivators, such as visa requirements (Lawson & Roychoudhury, 2016), lack of travel companions (Su, Cheng, & Swanso, 2020), personal and familial obligations (Wang, Yi, Wu, Pearce, & Huang, 2018), and environmental concerns (Wu, Font, & Liu, 2021).

3. Scale validation

Scales are essential in examining tourist motivation and demotivation. Zhou (2019) proposed five steps needed when developing a new scale, including (1) qualitatively investigating the scale construct, (2) converting qualitative findings to scale items, (3) reviewing items' content-based validity, (4) collecting quantitative data, and (5) assessing items' construct-based validity. Alternatively, Boateng, Neilands, Frongillo, Melgar-Quinonez, and Young (2018) recommended three phrases and nine steps involving scale development and validation: (1) item development (1. domain identification and item generation and 2. content validity), (2) scale development (3. questions pre-test, 4. sampling and survey administration, 5. item reduction, and 6. factors extraction), and (3) scale evaluation (7. test of dimensionality, 8. test of reliability, and 9. test of validity).

AI-powered tools such as Google Gemini can significantly reduce the scale of the development process. After identifying the primary concept (domain or construct), researchers and practitioners can ask Gemini several specific questions to create a preliminary scale with some underlying factors and their corresponding items. The steps involving item generation and reduction have already been skipped. The remaining tasks only concern the content validation of the recommended factors and items and the tests of the recommended scales' dimensionality, reliability, and validity.

METHODS

1. Questionnaire development

This study explored the factors that motivated and demotivated university students to travel to celebrate their graduation and the impacts these factors could have on their intentions. The researchers adopted recent advancements in language processing programs or AI tools to generate the potential factors, considering the need for more research on the same topics and subjects. They chose Google Gemini as the particular tool as it could help with diverse content types (Imran & Almusharraf, 2024).

Firstly, the researchers asked Gemini two direct questions: What motivated or demotivated university students to travel to celebrate their graduation? Gemini provided the answers in categories and points. They repeated the process several times in two languages (English and Vietnamese) to cross-check the answers before compiling the lists of motivation and demotivation factors and items.

Secondly, the researchers reworded and redefined the factors and items Gemini suggested to avoid potential copyright issues (Table 1, 2). They reviewed the tourist motivation and demotivation literature to validate the items' face values (Boateng, Neilands, Frongillo, Melgar-Quinonez, & Young, 2018; Zhou, 2019).

Table 1: Motivation items and Factor

Factor	Redefinition	Item	Redefinition: Graduation travel offers an opportunity or a way to...	References
M1	Celebration	F1	To celebrate the end of years of hard work and dedication	Li and Cai (2012); White and White (2004)
		F2	To celebrate the transition from one stage to another	Li and Cai (2012), White and White (2004)
M2	New exposure and discovery	F3	To expose to new cultures, natures, and lifestyles	Dale and Ritchie (2020); Hudson, Wang, and Gil (2011); Shu and Scott (2014)
		F4	To sharpen necessary skills such as planning, budgeting, and problem-solving	Alexander, Bakir, and Wickens (2010); Scarinci and Pearce (2012)

Factor	Redefinition	Item	Redefinition: Graduation travel offers an opportunity or a way to...	References
		F5	To discover hidden interests	Dale and Ritchie (2020); Hudson, Wang, and Gil (2011); Shu and Scott (2014)
M3	Sharing	F6	To share experiences and create memories with friends	Weiler, et al. (2013)
		F7	To celebrate graduation with friends	Weiler, et al. (2013)
		F8	To capture experiences with friends and share them on social media	Weiler, et al. (2013)
M4	Escaping and recharging	F9	To escape stressful university life	Haddouche and Salomone (2018); Liu and Kirillova (2021); Robinson and Schänzel (2019)
		F10	To de-stress and recharge before starting the next life stage	Haddouche and Salomone (2018); Liu and Kirillova (2021); Robinson and Schänzel (2019)
		F11	To have new ideas or inspirations for the next life stage	Haddouche and Salomone (2018); Liu and Kirillova (2021); Robinson and Schänzel (2019)
M5	Experiences and adventures	F12	To have unique experiences before starting the next life stage	Haddouche and Salomone (2018); Liu and Kirillova (2021); Robinson and Schänzel (2019)
		F13	To fulfil travel dreams before starting the next life stage	Haddouche and Salomone (2018); Liu and Kirillova (2021); Robinson and Schänzel (2019)
		F14	To have an adventure before starting the next life stage	Haddouche and Salomone (2018); Liu and Kirillova (2021); Robinson and Schänzel (2019)

Table 2: Demotivation items and factors

Factor	Redefinition	Item	Redefinition: Students must overcome ... to travel to celebrate their graduation	References
D1	Cost	B1	Travel costs, including transportation, accommodation, food and drinks, entertainment, and shopping	Bizjak, Knežević, and Cvetrežnik (2011); Cheong, Sin, and Chang (2023); Dale and Richie (2020)
		B2	The existing debt, both financial and mental	Bizjak, Knežević, and Cvetrežnik (2011); Cheong, Sin, and Chang (2023); Dale and Richie (2020)
D2	Time, skills, and entry	B3	The lack of time (individual) or mismatch of time (group)	Bizjak, Knežević, and Cvetrežnik (2011); Cheong, Sin, and Chang (2023); Dale and Richie (2020)
		B4	The lack of skills and knowledge	Bizjak, Knežević, and Cvetrežnik (2011); Cheong, Sin, and Chang (2023); Dale and Richie (2020)
		B5	The official permission to enter a (foreign) destination	Lawson and Roychoudhury (2016)

Factor	Redefinition	Item	Redefinition: Students must overcome ... to travel to celebrate their graduation	References
D3	External concerns	B6	External travel fear, such as language barrier, safety, food, and climate	Khan, Chelliah, Khan, and Amin (2019); Su, Cheng, and Swanso (2020); Wang, Yi, Wu, Pearce, and Huang (2018)
		B7	The inability to find friends to travel with	Khan, Chelliah, Khan, and Amin (2019); Su, Cheng, and Swanso (2020); Wang, Yi, Wu, Pearce, and Huang (2018)
		B8	Internal travel fear, such as socializing and group working	Khan, Chelliah, Khan, and Amin (2019); Su, Cheng, and Swanso (2020); Wang, Yi, Wu, Pearce, and Huang (2018)
D4	Current issues	B9	The uncertainty of future job offers	Bizjak, Knežević, and Cvetrežnik (2011); Dale and Richie (2020)
		B10	The existing familial issues, such as time and money	Khan, Chelliah, Khan, and Amin (2019); Su, Cheng, and Swanso (2020); Wang, Yi, Wu, Pearce, and Huang (2018)
		B11	The inclination to rest after a stressful period	Bizjak, Knežević, and Cvetrežnik (2011); Dale and Richie (2020)
D5	Other inclinations	B12	The unrealistic expectations created by social media	Park and Jang (2013)
		B13	The drive to continue study or research	Bizjak, Knežević, and Cvetrežnik (2011); Dale and Richie (2020)
		B14	The multiple impacts of tourism	Wu, Font, and Liu (2021)

Thirdly, the researchers developed an English questionnaire with the motivation and demotivation items generated earlier. They adopted a five-point (disagree–agree) scale to measure these items. The researchers also created three questions about the participants' intentions, including traveling alone (I1), with classmates (I2), and with close friends (I3). They chose a seven-point (disagree–agree) scale to capture the intentions. Differing the (de)motivation and intention scales was the ex-ante tactic to eliminate the common method bias (Kock, Berbekova, & Assaf, 2021). The researchers also included other contents in the questionnaire to gather information on the participants' biological sex, travel frequency, monthly budget for travel and entertainment, debt, and mental issues.

After that, the researchers translated the questionnaire into Vietnamese via a translation-back translation process. They also compared their manual translation with Gemini's automatic content generation to confirm the outcome further. Finally, the researchers asked 38 Vietnamese students to pretest the questionnaire. These participants did not report any problems; therefore, the research group used this questionnaire in the primary survey.

2. Data collection

The research group chose to implement a single case study, considering the exploratory nature of their effort (O'Neill, 2011). The university where the lead researcher was affiliated served as the study setting. This higher educational institution has a business major; thus, it has more female than male students, which is typical in Vietnam (Đặng Nguyễn, 2019).

The research group surveyed in September and October 2024. They randomly contacted ten lecturers, diversifying their classes' days and periods. These lecturers helped distribute and collect the paper-based questionnaires to their students in their third and fourth years and approaching graduation. The students participated in the survey voluntarily. Their personal information was not collected.

Four hundred and seven students provided the answers to the research group. However, two participants' answers had missing values; therefore, their contributions were excluded, leaving a sample of 405. This sample was large enough to generalize the findings to the university's student population, which was rounded to about 20,000 (Jennings, 2001).

Among the students, 17.3% were male, and 80.2% were female; the remaining wished not to reveal their biological sex. About 45.2% of the students were in their third year, while about 54.1% were in their fourth year. Almost 90% of the sample did not travel regularly (once every six or twelve months or less); they also had a limited budget for travel and entertainment. About 10% reported debts and mental issues; the remaining were debt-free and mentally healthy.

3. Data analysis

The researchers analysed the data in several steps. Firstly, they used IBM SPSS to check the characteristics of the data (Table 3). The skewness and kurtosis values of all the items fell below 2 and 3, respectively; the data was normally distributed (Kim, 2013). In addition, the sample of 405 ensured a respondent-to-item ratio of about 29:1 with the (de)motivation constructs (maximum 14 items each) and about 14:1 with the (de)motivation-intention correlations (maximum 29 items each); the sample was appropriate for covariance-based structural equation model (SEM) analyses (Hair, Black, Babin, & Anderson, 2019).

Table 3: Descriptive analysis of the items

	Mean	Standard Deviation	Skewness	Kurtosis
F1	3.69	0.86	-0.72	0.84
F2	3.81	0.86	-0.69	0.79
F3	4.00	0.84	-0.99	1.76
F4	3.70	0.93	-0.51	0.13
F5	3.82	0.87	-0.61	0.58
F6	3.97	0.87	-0.80	0.86
F7	3.90	0.90	-0.69	0.50
F8	3.84	0.95	-0.81	0.71
F9	3.55	1.05	-0.27	-0.56
F10	3.94	0.91	-0.77	0.57
F11	3.91	0.86	-0.49	0.11
F12	3.96	0.81	-0.61	0.76
F13	3.82	0.91	-0.53	0.35
F14	3.85	0.89	-0.53	0.23
B1	3.34	0.92	-0.10	-0.24
B2	3.38	0.97	-0.33	-0.33
B3	3.43	0.96	-0.38	-0.32
B4	2.68	0.99	0.32	-0.21
B5	2.72	1.05	0.27	-0.44
B6	2.69	1.08	0.22	-0.69
B7	2.94	1.12	0.03	-0.75
B8	2.61	1.03	0.17	-0.61
B9	3.02	1.08	-0.12	-0.55
B10	3.33	1.02	-0.22	-0.56
B11	3.24	1.04	-0.06	-0.61
B12	2.98	1.01	0.11	-0.43
B13	2.92	0.97	0.09	-0.25
B14	3.00	0.98	0.04	-0.29
I1	3.69	1.71	0.17	-0.88

I2	4.61	1.52	-0.45	-0.25
I3	5.84	1.30	-1.49	2.68

Secondly, the researchers employed IBM Amos to confirm the structure of the motivation and demotivation constructs (the structure models). They evaluated the convergent and discriminant validity based on Fornell and Larcker's (1981) recommendations: the Average Variance Extracted (AVE) values should exceed 0.5, and the AVE squared root values should exceed the highest correlations among the factors of a construct. In addition, they measured the fitness of the data with the models based on Schermelleh-Engel, Moosbrugger, and Müller's (2003) suggestions: SRMR (Standardized Root Mean squared Residual) < 0.1, GFI (Goodness-of-Fit Index) > 0.90, AGFI (Adjusted Goodness-of-Fit Index) > 0.85, NFI (Normed Fit Index) > 0.90, CFI (Comparative Fit Index) > 0.95, and RMSEA (Root Mean Square Error of Approximation) < 0.08.

The researchers found that the AVEs of D2 (time, skills, and entry) and D4 (current issues) did not reach 0.5. Therefore, they removed these factors from the demotivation construct to improve the fit of the demotivation model.

Thirdly, the researchers adopted IBM Amos to verify the associations between the five motivation factors and the three remaining demotivation factors with each of the three intentions (the correlation models). They used the indices mentioned earlier to determine the fitness of the models.

FINDINGS

1. The motivation and demotivation of graduation travel (the structure models)

Regarding the motivation to travel to celebrate graduation, Google Gemini suggested fourteen items and five factors. The confirmation factor analysis revealed that all items significantly loaded on their respective factors (Table 4). All factors' AVEs and composite reliability (CRs) exceeded 0.05 and 0.70 (Bacon, Sauer, & Young, 1995; Fornell & Larcker, 1981). In addition, AVE squared root values were more prominent than the coefficient values of the correlations among the factors (Table 4, 5) (Fornell & Larcker, 1981). Among the six selected fit indices, SRMR, GFI, AGFI, and NFI met the criteria, while CFI and RMSEA did not (Schermelleh-Engel, Moosbrugger, & Müller, 2003). However, considering the exploratory nature of this study, the five-factor, fourteen-item model of graduation travel motivation could be approved.

In addition, concerning the demotivation to travel to celebrate graduation, Google Gemini also recommended fourteen items and five factors. However, after eliminating two factors with low AVEs (D2 and D4), the adjusted model had excellent fitness, with all fit indices satisfying the criteria (Schermelleh-Engel, Moosbrugger, & Müller, 2003). This three-factor, eight-item model also had its reliability and validity (Table 4, 5) (Bacon, Sauer, & Young, 1995; Fornell & Larcker, 1981).

Table 4: Confirmation of (de)motivation structures

Factor/ Item	Loading	AVE	√AVE	CR	Factor/ Item	Loading	AVE	√AVE	CR
M1		0.638	0.799	0.779	D1		0.646	0.8036	0.784
F1	0.742				B1	0.721			
F2	0.763				B2	0.845			
M2		0.616	0.785	0.827	D3		0.524	0.724	0.766
F3	0.785				B6	0.754			
F4	0.691				B7	0.648			
F5	0.761				B8	0.841			
M3		0.600	0.774	0.818	D5		0.603	0.7938	0.819
F6	0.754				B12	0.698			
F7	0.780				B13	0.743			
F8	0.694				B14	0.868			
M4		0.572	0.756	0.799					
F9	0.648								

Factor/ Item	Loading	AVE	√AVE	CR	Factor/ Item	Loading	AVE	√AVE	CR
F10	0.823								
F11	0.743								
M5		0.675	0.822	0.860					
F12	0.657								
F13	0.802								
F14	0.862								
Fit indices									
SRMR	0.055				0.026				
GFI	0.925				0.986				
AGFI	0.882				0.970				
NFI	0.903				0.981				
CFI	0.926				0.995				
RMSEA	0.082				0.030				

Table 5: Correlations among the (de)motivation factors

	M1	M2	M3	M4		D1	D3
M2	0.723				D3	0.311	
M3	0.684	0.584			D5	0.425	0.655
M4	0.566	0.577	0.562				
M5	0.476	0.668	0.479	0.671			

2. The motivation, demotivation, and intention of graduation travel (the correlation models)

The three correlation models had four satisfactory fit indices (SRMR, GFI, AGFI, and RMSEA) and two unsatisfactory fit indices (NFI and CFI) (Schermelleh-Engel, Moosbrugger, & Müller, 2003). However, these models could be accepted, given this study's exploratory purpose.

The intention to travel alone ($I_1=3.69$) was the weakest among the three intentions measured ($I_2=4.61$ and $I_3=5.84$). Only M3 (sharing) had a weak significant impact on this intention (Table 6). Unsurprisingly, its impact was negative since the students could not share their experiences with other people if travelling alone. In addition, the intention to travel with classmates was significantly affected by M3 (sharing) and M1 (celebration). It might also be marginally affected by D5 (other inclinations), given the p-value threshold 0.1. Finally, the intention to travel with close friends was significantly influenced by M1 and M3. The effect of M3 was medium.

Table 6: Correlations between (de)motivation factors and intentions

	I1		I2		I3	
	β	p	β	p	β	p
M1	-0.030	0.814	0.276	0.019	0.248	0.026
M2	0.207	0.105	0.102	0.369	0.095	0.382
M3	-0.198	0.041	0.202	0.022	0.427	0.000
M4	0.104	0.299	-0.049	0.582	-0.104	0.227
M5	0.033	0.739	-0.055	0.544	-0.027	0.754
D1	0.084	0.214	-0.092	0.132	0.006	0.920
D3	0.000	0.997	0.074	0.335	-0.093	0.202
D5	0.009	0.921	0.147	0.071	0.088	0.250
Fit indices						
SRMR	0.044		0.044		0.044	

	I1		I2		I3	
	β	p	β	p	β	p
GFI	0.916		0.916		0.915	
AGFI	0.881		0.882		0.880	
NFI	0.889		0.893		0.892	
CFI	0.934		0.937		0.935	
RMSEA	0.056		0.055		0.056	

DISCUSSION

Some university students want to travel to celebrate graduation (Cheong, Sin, & Chang, 2023; Liu & Kirillova, 2021). Their intentions might be strengthened if their close friends and classmates also participated in the travels. Thus, time together is an essential element of graduation celebrations, in general, and graduation travels, in particular (Weiler et al., 2013).

The together time helps facilitate the sharing of experiences and memories among friends. Thus, many students may not want to travel alone on this occasion (demotivation item B7). The seeking of interpersonal interactions (M3) is an external motivation factor, differing from the seeking of intrapersonal achievements (M1, M2, and M5), which are internal motivation factors (Snepenger, King, Marshall, & Uysal, 2006). In addition, some escaping motivations could also be captured by the factor M4 (Snepenger, King, Marshall, & Uysal, 2006). Nonetheless, the interpersonal or intrapersonal nature of this factor was unclear.

On the other hand, the students might be demotivated by many intrapersonal issues involving their financial budget, time, skills, and other duties and commitments (Crawford, Jackson, & Godbey, 1991). Some interpersonal (B7 and B8) and environmental (B5 and B14) restraints were also present (Crawford, Jackson, & Godbey, 1991). Nevertheless, these demotivation factors might not affect the students' intentions much.

1. Theoretical and methodological implications

Many factors may motivate or demotivate university students to participate in graduation travels (Cheong, Sin, & Chang, 2023; Liu & Kirillova, 2021). However, this study revealed that the most essential factor that could positively and negatively impact the students' intentions was the sharing factor (M3). This factor motivates classmates and close friends to spend time together on a trip to celebrate their graduation. It also demotivates individuals to travel alone on this occasion. In addition, this study also found that celebration (M1) was another significant motivation factor. Nonetheless, this factor was only influential when classmates and close friends were together on the graduation travels.

Moreover, this study proved that Google Gemini could help generate statistically reliable and valid items and factors to measure travel motivation and demotivation. Comparing the structures nominated by Gemini with the theoretical models developed by previous researchers (Crawford, Jackson, & Godbey, 1991; Snepenger, King, Marshall, & Uysal, 2006) further advocates Gemini's academic prowess. Contemporary researchers can adopt Gemini and other AI tools to facilitate their efforts, especially those involving niche topics that the existing literature has not adequately covered. Practitioners can also employ these tools to support projecting and delivering suitable offerings to their intended customers.

2. Practical implications

Graduation travel is not only a wish but also a want or need of many students. Universities must acknowledge this want or need in addition to the conventional graduation ceremonies and subsequent events (Adame et al., 2021). Understanding students' motivation to celebrate and spend time together would help university educators and managers project and deliver more meaningful and appropriate activities to the upcoming graduates and their families and friends. This knowledge is also valuable to the former to advise their younger students and organise student circles to strengthen the interpersonal relationships among student members, cultivating an essential condition for future graduation travels together.

Travel companies, particularly those in the developing market of Vietnam, must also be aware of this market segment. They could partner with universities to provide their students with information on graduation travel options. They should research students' wants, needs, and preferences to better design and deliver their offerings. Some sense of social responsibility must be considered, in which educational and sociocultural benefits are more prevalent than financial benefits. Social travel companies (Wang, Duan, & Yu, 2016) can expand their operations to the student market segment to achieve the abovementioned goal.

CONCLUSION

This study explored the motivation and demotivation of university students regarding graduation travels. It adopted Google Gemini's recommendation of the (de)motivation items and factors (the structure models) and implemented a single case study with Vietnamese students to confirm these structure models. The results relaxedly approved the originally five-factor fourteen-item model of motivation and firmly accepted the adjusted three-factor eight-item model of demotivation. In addition, further exploration of the correlations between the (de)motivation factors and student intentions (the correlation models) revealed the essentiality of two motivation factors: celebration and sharing. These outcomes provided methodological implications for using AI in research and practical implications for managing the niche market of graduation travels.

However, this study could not avoid some limitations. First, the study did not include the opinions of students at other institutions in Vietnam, especially high school and lower-grade students. The approved fitness of the structure models was finite. Second, the study did not reexplore the structures of motivation and demotivation before confirming them. Hidden patterns could not be detected, particularly the underlying dimensions hypothesised by Crawford, Jackson, and Godbey (1991) and Snepenger, King, Marshall, and Uysal (2006). Third, the study did not explore the impacts of other variables, such as values, on student intentions. The overall picture of students' pre-travel perspective was not drawn. Fourth, the study did not investigate students' actual travel experiences. The issues they may encounter during and after their travels could not be identified either.

Future studies could replicate this research in other contexts with other student participants. They could consider adding other variables when examining students' pre-travel intentions and addressing other issues when investigating students' experiences. In addition, future studies could explore other potential contributions of AI tools in designing and implementing research. These efforts would help further enrich the literature and ascertain the role of AI tools in the academic world.

REFERENCES

- [1] Adame, E. A., Tracy, S. J., Town, S., Towles, M., Razzante, R., Tietsort, C., Kamrath, J., Clark, L., Tremblay, R., Pettigrew, J., Donovan, M., & Becker, K. (2021). Can we create the 'being' of leadership? A mixed-methods study of two leadership pedagogies at a southwestern, U.S. university. *Journal of Applied Communication Research*, 49(3), 286–304. <https://doi.org/10.1080/00909882.2020.1851040>
- [2] Alexander, Z., Bakir, A., & Wickens, E. (2010). An investigation into the impact of vacation travel on the tourist. *International Journal of Tourism Research*, 12(5), 574–590. <https://doi.org/10.1002/jtr.777>
- [3] Bacon, D. R., Sauer, P. L., & Young, M. (1995). Composite reliability in structural equations modelling. *Educational and Psychological Measurement*, 55(3), 394–406. <https://doi.org/10.1177/0013164495055003003>
- [4] Bizjak, B., Knežević, M., & Cvetrežnik, S. (2011). Attitude change towards guests with disabilities: Reflections from tourism students. *Annals of Tourism Research*, 38(3), 842–857. <https://doi.org/10.1016/j.annals.2010.11.017>
- [5] Boateng, G. O., Neilands, T. B., Frongillo, E. A., Melgar-Quinonez, H., & Young, S. L. (2018). Best practices for developing and validating health, social, and behavioural research scales: A primer. *Frontiers in Public Health*, 6, Article 149. <https://doi.org/10.3389/fpubh.2018.00149>
- [6] Cavagnaro, E., Staffieri, S., & Postma, A. (2018). Understanding millennials' tourism experience: Values and meaning to travel as a key for identifying target clusters for youth (sustainable) tourism. *Journal of Tourism Futures*, 4(1), 31–42. <https://doi.org/10.1108/JTF-12-2017-0058>
- [7] Cheong, Y. S., Sin, H. L., & Chang, T. C. (2023). 'If not now, then never': Conceptualising the grad trip. *Tourist Studies*, 23(4), 272–292. <https://doi.org/10.1177/14687976231203751>
- [8] Crawford, D. W., Jackson, E. L., & Godbey, G. (1991). A hierarchical model of leisure constraints. *Leisure Sciences*, 13(4), 309–320. <https://doi.org/10.1080/01490409109513147>

- [9] Dale, N. F., & Ritchie, B. W. (2020). Understanding travel behaviour: A study of school excursion motivations, constraints and behaviour. *Journal of Hospitality and Tourism Management*, 43, 11–22. <https://doi.org/10.1016/j.jhtm.2020.01.008>
- [10] Đăng Nguyên. (2019, December 08). Trường đại học thay đổi cảnh quan vì... nhiều sinh viên nữ [Universities' scenery changes due to more female students]. Retrieved October 29, 2024, from Thanh Niên: <https://thanhnien.vn/truong-dai-hoc-thay-doi-canh-quan-vi-nhieu-sinh-vien-nu-185907336.htm>
- [11] Dwivedi, Y. K., Pandey, N., Currie, W., & Micu, A. (2024). Leveraging ChatGPT and other generative artificial intelligence (AI)-based applications in the hospitality and tourism industry: Practices, challenges and research agenda. *International Journal of Contemporary Hospitality Management*, 36(1), 1–12. <https://doi.org/10.1108/IJCHM-05-2023-0686>
- [12] Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.2307/3151312>
- [13] Gallarza, M. G., Saura, I. G., & Moreno, F. A. (2013). The quality-value-satisfaction-loyalty chain: Relationships and impacts. *Tourism Review*, 68(1), 3–20. <https://doi.org/10.1108/16605371311310048>
- [14] Gao, C., Khalid, S., & Tadesse, E. (2024). Understanding school enrollment in the free education era: Roadblocks to meeting the sustainability development goal. *European Journal of Education*, 59 (2), Article e12600. <https://doi.org/10.1111/ejed.12600>
- [15] General Statistics Office. (2021). *Statistical Yearbook of Vietnam*. Hanoi: Statistical Publishing House.
- [16] Grosemans, I., De Cuyper, N., Forrier, A., & Vansteenkiste, S. (2023). Graduation is not the end; it is just the beginning: Change in perceived employability in the transition associated with graduation. *Journal of Vocational Behavior*, 145, Article 103915. <https://doi.org/10.1016/j.jvb.2023.103915>
- [17] Gubbels, J., van der Put, C. E., & Assink, M. (2019). Risk factors for school absenteeism and dropout: A meta-analytic review. *Journal of Youth and Adolescence*, 48, 1637–1667. <https://doi.org/10.1007/s10964-019-01072-5>
- [18] Haddouche, H., & Salomone, C. (2018). Generation Z and the tourist experience: Tourist stories and use of social networks. *Journal of Tourism Futures*, 4(1), 69–79. <https://doi.org/10.1108/JTF-12-2017-0059>
- [19] Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate Data Analysis*. Andover: Cengage Learning EMEA.
- [20] Han, X., Stocking, G., Gebbie, M. A., & Appelbaum, R. P. (2015). Will they stay, or will they go? International graduate students and their decisions to stay or leave the U.S. upon graduation. *PLoS ONE*, 10(3), Article e0118183. <https://doi.org/10.1371/journal.pone.0118183>
- [21] Hudson, S., Wang, Y., & Gil, S. M. (2011). The influence of a film on destination image and the desire to travel: A cross-cultural comparison. *International Journal of Tourism Research*, 13(2), 177–190. <https://doi.org/10.1002/jtr.808>
- [22] Imran, M., & Almusharraf, N. (2024). Google Gemini as a next-generation AI educational tool: A review of emerging educational technology. *Smart Learning Environments*, 11, Article 22. <https://doi.org/10.1186/s40561-024-00310-z>
- [23] Jennings, G. (2001). *Tourism Research*. Milton: John Wiley and Sons.
- [24] Khan, M. J., Chelliah, S., Khan, F., & Amin, S. (2019). Perceived risks, travel constraints and visit intention of young women travellers: The moderating role of travel motivation. *Tourism Review*, 74(3), 721–738. <https://doi.org/10.1108/TR-08-2018-0116>
- [25] Kim, H.-Y. (2013). Statistical notes for clinical researchers: Assessing normal distribution (2) using skewness and kurtosis. *Open Lecture on Statistics*, 38(1), 52–54. <https://doi.org/10.5395/rde.2013.38.1.52>
- [26] Kock, F., Berbekova, A., & Assaf, A. G. (2021). Understanding and managing the threat of common method bias: Detection, prevention and control. *Tourism Management*, 86, Article 104330. <https://doi.org/10.1016/j.tourman.2021.104330>
- [27] Lawson, R. A., & Roychoudhury, S. (2016). Do travel visa requirements impede tourist travel? *Journal of Economics and Finance*, 40, 817–828. <https://doi.org/10.1007/s12197-015-9343-5>
- [28] Li, M., & Cai, L. A. (2012). The effects of personal values on travel motivation and behavioural intention. *Journal of Travel Research*, 51(4), 473–487. <https://doi.org/10.1177/0047287511418366>
- [29] Liu, C., & Kirillova, K. (2021). The formative nature of graduation travel. *Annals of Tourism Research Empirical Insights*, 2(2), Article 100029. <https://doi.org/10.1016/j.annale.2021.100029>

-
- [30] Mariani, M., & Wirtz, J. (2023). A critical reflection on analytics and artificial intelligence-based analytics in hospitality and tourism management research. *International Journal of Contemporary Hospitality Management*, 35(8), 2929-2943. <https://doi.org/10.1108/IJCHM-08-2022-1006>
 - [31] Mura, P., Tavakoli, R., & Sharif, S. P. (2017). 'Authentic but not too much': Exploring perceptions of authenticity of virtual tourism. *Information Technology & Tourism*, 17, 145-159. <https://doi.org/10.1007/s40558-016-0059-y>
 - [32] O'Neill, R. E. (2011). *Single Case Research Designs in Educational and Community Settings*. Boston, MA: Pearson.
 - [33] Park, J.-Y., & Jang, S. (2013). Confused by too many choices? Choice overload in tourism. *Tourism Management*, 35, 1-12. <https://doi.org/10.1016/j.tourman.2012.05.004>
 - [34] Richards, G. (2015). The new global nomads: Youth travel in a globalising world. *Tourism Recreation Research*, 40(3), 340-352. <https://doi.org/10.1080/02508281.2015.1075724>
 - [35] Robinson, V. M., & Schänzel, H. A. (2019). A tourism inflex: Generation Z travel experiences. *Journal of Tourism Futures*, 5(2), 127-141. <https://doi.org/10.1108/JTF-01-2019-0014>
 - [36] Scarinci, J., & Pearce, P. (2012). The perceived influence of travel experiences on learning generic skills. *Tourism Management*, 33(2), 380-386. <https://doi.org/10.1016/j.tourman.2011.04.007>
 - [37] Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research Online*, 8(2), 23-74.
 - [38] Shu, M., & Scott, N. (2014). Influence of social media on Chinese students' choice of an overseas study destination: An information adoption model perspective. *Journal of Travel & Tourism Marketing*, 31(2), 286-302. <https://doi.org/10.1080/10548408.2014.873318>
 - [39] Snepenger, D., King, J., Marshall, E., & Uysal, M. (2006). Modelling Iso-Ahola's motivation theory in the tourism context. *Journal of Travel Research*, 45(2), 140-149. <https://doi.org/10.1177/0047287506291592>
 - [40] Stone, M. J., & Petrick, J. F. (2013). The educational benefits of travel experiences: A literature review. *Journal of Travel Research*, 52(6), 731-744. <https://doi.org/10.1177/0047287513500588>
 - [41] Su, L., Cheng, J., & Swanson, S. R. (2020). The impact of tourism activity type on emotion and storytelling: The moderating roles of travel companion presence and relative ability. *Tourism Management*, 81, Article 104138. <https://doi.org/10.1016/j.tourman.2020.104138>
 - [42] Tight, M. (2020). Student retention and engagement in higher education. *Journal of Further and Higher Education*, 44(5), 689-704. <https://doi.org/10.1080/0309877X.2019.1576860>
 - [43] Wang, C., Duan, Z., & Yu, L. (2016). From nonprofit organisation to social enterprise: The paths and future of a Chinese social enterprise in tourism. *International Journal of Contemporary Hospitality Management*, 28(6), 1287-1306. <https://doi.org/10.1108/IJCHM-05-2014-0230>
 - [44] Wang, W., Yi, L., Wu, M.-Y., Pearce, P. L., & Huang, S. (2018). Examining Chinese adult children's motivations for travelling with their parents. *Tourism Management*, 69, 422-433. <https://doi.org/10.1016/j.tourman.2018.06.024>
 - [45] Weiler, L., Haddock, S., Zimmerman, T. S., Krafchick, J., Henry, K., & Rudisill, S. (2013). Benefits derived by college students from mentoring at-risk youth in a service-learning course. *American Journal of Community Psychology*, 52, 236-248. <https://doi.org/10.1007/s10464-013-9589-z>
 - [46] White, N. R., & White, P. B. (2004). Travel as transition: Identity and place. *Annals of Tourism Research*, 31(1), 200-218. <https://doi.org/10.1016/j.annals.2003.10.005>
 - [47] Wu, J., Font, X., & Liu, J. (2021). Tourists' pro-environmental behaviours: Moral obligation or disengagement? *Journal of Travel Research*, 60(4), 735-748. <https://doi.org/10.1177/0047287520910787>
 - [48] Zhou, Y. (2019). A mixed methods model of scale development and validation analysis. *Measurement: Interdisciplinary Research and Perspectives*, 17(1), 38-47. <https://doi.org/10.1080/15366367.2018.1479088>