Do destination images really matter? Predicting destination choices of student travelers

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Abstract:
The purpose of the study was to identify images that are likely predictors of destination choices of college students considering travelling to Turkey in a probabilistic model when two measurements of the dependent variable were involved. Five hundred surveys were distributed to geographically dispersed universities across the USA. Based on a response rate of 65.4 per cent, the study results indicated that travellers can compartmentalise their mental pictures and evaluate each image component according to its importance in choice decisions. Moreover, familiarity with the destination can be considered as a moderator variable in decision-making models. Implications for destination marketing and management are discussed in light of the study findings.
Keywords: destination image, college students, tourist destination, Turkish tour-ism, likelihood model

Article:
INTRODUCTION
Tourists are rational decision makers who allocate their income among various goods and services, including travel, to maximise utility from a consumption experience.[1-3] For several decades, researchers have studied tourist decision making within the 6 frame-work of consumer choice processes.[4-6] Consumers' choice processes are influenced by both psychological variables (motivations, attitudes, beliefs and images) and non-psychological variables (time, destination attributes, perceived costs of tourism product, buyer characteristics and benefits sought). Psychological variables are internal to the consumer, whereas non-psychological variables are the external causes on this process where the latter exert influence on the formation of the former. Both factors help decision makers construct awareness and evoked sets of competing destinations following a 'hierarchy-like' procedure. This study determines destination images of an emerging tourist destination (Turkey) in the US student market, and attempts to examine their role in predicting the choice of Turkey as a vacation destination in a probabilistic model.

LITERATURE REVIEW
The extant research in consumer decision theory suggests that images of tourism products (often confused with or equated to attitudes) and travellers' perceptions of destinations play important roles in destination choice decisions of potential travellers.[7-9] In this study, image has been defined as 'a compilation of beliefs and impressions based on information processing from various sources over time resulting in internally accepted mental constructs'.[10] According to Fakeye and Crompton,[11] destinations with positive images can be expected to prosper while those with less favourable images may never achieve their fullest tourism potential. Accordingly, it seems that travellers use images and perceptions of a destination to form their destination awareness sets. How and when are images formed? At what point do images influence consumers' selection of a particular destination? Finding answers to these types of questions is integral for developing effective destination marketing strategies. The unique contribution of images toward the final destination choice may be difficult to determine, however, because images may be intricately related to other variables in the consumer choice models, presenting a multi-collinearity problem. Thus, an assessment of the unique contribution of images to destination choice models becomes an important research issue. Similarly, the availability of a multitude of destinations in the awareness set of travellers may cause the creation of a multitude of destination images, each individual and unique to the destination. There-fore, it is not surprising to encounter many image

studies each looking at the same issue from a different angle so that destination-specific conditions can be captured in consumer choice models.

Hitherto, numerous studies have examined images of states/regions in the USA[12-19] and a handful of countries around the world.[20-28] The need for image research is especially pronounced for emerging tourist destinations in developing countries. Turkey as an emerging destination is less known in the USA than in Europe and other parts of the world. For the past decade or so, Turkey has experienced substantial changes in demand and supply of tourism products. Its bid for membership of the European Union has certainly affected the country's image in the eyes of most Europeans. Turkey can now be considered as a major player in the European tourism market due to the upsurge of tourism investments and the efforts of large European tour operators to portray the country as a cheap, relatively pristine and culturally diverse tourism destination close to major European markets. From a global perspective, developing countries such as Turkey interested in developing a sustainable tourism industry and enlarging their share of the international tourism market at a period of increasing competition, need to devote greater attention to positive image formation. Constant monitoring in the changes of images of and attitudes towards a destination is necessary for a successful market positioning. Even with recent attention to Turkey's image in the US pleasure-travel market, the country's image for travellers originating from the USA remains largely ambiguous. The two notable studies that dealt with images of Turkey did little to uncover images of the US travel market due to problems in their methodology. There is a pronounced need for conducting image studies based on various market segments.

One of the earlier studies about images of Turkey as an international vacation destination dates back to the early 1 990s.[29] More recently, Baloglu and McClearly[30] compared images of four Mediterranean countries, including Turkey, using 1,530 potential US travellers as their sample. A low response rate of 29.6 per cent and validity problems regarding the scales used to measure affective images make the findings questionable. The sample selection seemed to be biased in the sense that the authors included a sample of people who had requested information about Turkey and therefore exposed themselves to the intended messages by the source. Thus, one can safely assume that the sample had become at least partially familiar with Turkey and had already developed some form of image (most likely a positive one). Thus it was not surprising that Turkey's image was positive among their sample of travellers. Moreover, their findings, although limited, indicated that Turkey was seen as good value for money with interesting and friendly people and unpolluted/unspoiled environment, and comparatively speaking had a more positive image for certain attributes than Egypt.

While it is commonly accepted that a clear understanding of travellers' images of a destination is crucial for developing successful marketing and positioning strategies, equally important is the area of behaviour, motivations, perceptions and images of places across subsegments of a potential market.[31] Marketing researchers argue that consumer groups which are segmented by socio-demographic variables, such as age or education levels, can be segmented even further, establishing different subcultures within the same general segment. Different age groups may represent a form of subculture because of their distinctive value systems, motivations, beliefs, attitudes and behaviour; accordingly, it appears that there may be significant differences in needs, wants, and lifestyles between age groups.[32] For example, according to a study by the American Council on Education over a decade ago (1989),[33] college students, who can be considered as a subgroup of the youth market, have more materialistic values than their parents and are thus more likely to respond to marketing campaigns which pro-mote economic security and status.

To date, the majority of existing market studies involve samples from older travellers; these groups are thought to have the potential means to travel . 34 Similar to their older counterparts, a younger section of the travel-ling market seems to possess the necessary means and time (at least during semester breaks and the spring break) to participate actively in travel and buy tourism services. According to the Federation of International Youth Travel Organizations (FIYTO) , the student market worldwide accounted annually for 4 million airline tickets, 5 million train tickets, 10 million travellers and 30 million overnight stays, just among the members of FIYTO. Similarly, the spring break, a travel phenomenon actively pursued by college students in the USA contributed

$1 bn to the US economy.[37-38] To be successful in an increasingly competitive tourism market, destination developers and marketers who want to capitalise on this lucrative student market must know students' needs, wants, attitudes and images of places as well as how they make their travel decisions.[39-40] Emerging tourist destinations may benefit from such socio-demographic segmentation, especially since there is an increasing competition for the traditional mass tourist market.

The present study differs from others in the same area of study in three general perspectives. First, the study assesses images of an emerging tourist destination (Turkey) that is well known in Europe but relatively less recognised in the USA, and statistically determines the relative position of its images in the minds of potential travellers in the USA. Second, the study attempts to determine how well images predict the odds of selecting that destination as a vacation destination when the dependent variable is in binary form. Third, it focuses on a sample of a segment (college students) that has received scant attention as a unique market, or has not been treated differently from other youth traveller segments. Several operational hypotheses have been developed and tested to guide the study: Table 1 displays the hypotheses and appropriate statistics used to test them.

METHODOLOGY

The questionnaire used in this study was comprised of five sections: traveller profile (establishing past travel experience and intentions for future travel); destination image (scales measuring affective and cognitive images of Turkey); information sources; knowledge about Turkey (familiarity with country, location on an unmarked world map); and socio-demographic information (age, gender, education, occupation, income, household structure, nationality and residence). A sixth section included open-ended questions that allowed the researchers to measure Turkey's image qualitatively. However, these open-ended questions were excluded from further analysis.

Table 1: Hypotheses guiding the study

Hypotheses		Statistics used
H_1	Turkey's images among US college students are neither positive nor negative	One-sample t-test
H_2	Being familiar with Turkey will not have an effect on how people will perceive Turkey	Independent sample t-test
H_3	Images will explain a significant amount of variation in the model of destination choice	Logistic regression
H_4	All image factors ($H_{4a,4b,4c,4d,4e,4f,4g,4h}$) will have direct relationships with increased odds of choosing Turkey as a vacation destination	Logistic regression
H_5	The odds of choosing Turkey as a vacation destination will not increase as respondents' familiarity with Turkey increases	Logistic regression
H_6	Respondents' socio-demographic characteristics will not have an effect on the odds of choosing Turkey as a vacation destination	Logistic regression

The data were collected from a non-probability sample of 500 students located in geographically dispersed universities across the USA. Specifically, four universities were selected as study sites: one in the north-eastern part of the USA, another in the south, one in the west and the last in the east. The authors contacted colleagues at those universities and asked them to distribute the questionnaire in their classes. Each of the four collaborating faculty members was given 125 questionnaires with the instructions that they distribute them in their introductory tourism, hospitality or recreation classes and collect the data in one class session. Each reported that they could not distribute all the questionnaires in their classes as the classes varied in student numbers. Consequently, only 326 questionnaires were returned, reaching a return rate of 65.2 per cent. Although obtaining a random sample to generalise the findings to a larger population of college students was not the objective of the study, the descriptive results of socio-demographic information showed that the group of participants resembled the characteristics of the intended student population at large. Earlier studies with college students reported similar characteristics;[41-42] nevertheless, the convenient sampling method used in this study limits the generalisability of the results beyond this sample of students.

Data were analysed using a combination of univariate and multivariate statistics. Specifically, one sample t-test was used to determine the statistically significant difference between a point estimate of 3.5 indicating a neutral image and individual image scores. Independent sample t-tests were utilised to assess statistically significant differences in image scores for groups of students familiar and unfamiliar with Turkey. The t-test is a statistical tool that can detect significant differences between the means of two groups of scores. Table 1 displays the statistical tools used in analysing the data. Logistic regression, on the other hand, is a multivariate statistical technique that is usually used to determine the effects of independent variables in a probability model. Specifically, a logistic regression model uses binary response variables — variables with two possible outcomes — to estimate the relationship between one or more predictor variables and the likelihood that an individual is a member of a particular group. Usually, a model is generated that would maximise the fit to the data, and the full model (a model that includes all independent variables) would be compared to the fit of the null model (a model that only includes the constant). The statistics used to denote the improvement of the full model over a null model is denoted by —2 log likelihood. This difference can then be tested for significance utilising the chi-square. A significant chi-square statistic would mean that the full model is a significant improvement over the null model. A researcher who wants to determine how his/ her model performs may look at two statistics, either the percentage of correctly classified cases or by interpreting multiple-R squared such as Nagelkerke-R^2. Researchers usually use the percentage of correctly classified cases as opposed to R^2. The logistics regression coefficients are usually interpreted as the change in the log odds associated with one unit change in the independent variables. A more detailed discussion on logistic regression can be found in Norusis and Grimm and Yarnold[44].

RESULTS
Descriptive results
Respondents consisted of 152 male students (46.6 per cent) and 153 female students (46.9 per cent) who had an average age of 23.9, with a range of 19 to 51. Students reported an average of 1.71 trips annually in the past five years, and indicated that they were not familiar with Turkey (mean = 4.5, standard deviation = 0.7, a higher score indicates lower familiarity on a five-point scale). Almost half of the respondents (44.5 per cent) indicated that they were somewhat or very likely to travel internationally in the next 12 months. The majority of the students (50.6 per cent) had an annual household income of $30,000 or less. When asked a question about the likelihood of choosing Turkey as an international vacation destination at any time in the future, not surprisingly only 2.5 per cent of the respondent students reported high likelihood of travelling to Turkey. When the students were requested to give specific information about their next likely destination, 95.4 per cent indicated that they were not very likely or not at all likely to choose Turkey as their next vacation destination. Moreover, a large majority of the respondents (93 per cent) were not familiar or only slightly familiar with Turkey. Tables 2 and 3 show the results of the descriptive statistics.

Table 2: Descriptive statistics of socio–demographic information

	Frequency	%
Household income[a]		
Less than $20,000	145	44.5
$20,000–29,999	20	6.1
$30,000–39,999	13	4.0
$40,000–49,999	22	6.7
$50,000–59,999	13	4.0
$60,000 or more	87	26.7
Gender[b]		
Male	152	46.6
Female	153	46.9

Note: Percentage totals may not equal 100 due to missing values
a: missing values: 26 (8.0%)
b: missing values: 21 (6.5%)

Results of the factor analysis Images of Turkey

A principal component factor analysis with varimax rotation was performed on the initial 82 image-related statements to determine underlying image domains. More than half (42) of the initial 82 items did not load on any factor, reflecting the heterogeneity of items. Factor loadings have been inspected and solutions improved by deleting items that either loaded on several factors simultaneously or had low loadings, making the interpretation difficult. Therefore, these items were dropped from further analysis. Accordingly, after several runs, the data yielded eight clean factors with eigenvalues equal to or greater than one, explaining 66.8 per cent of the variance in the original dataset. Table 4 displays the domain descriptions, factor loadings, eigenvalues and variance explained by each factor and Cronbach's alpha reliability coefficients. The eight conceptually meaningful factors were labelled as Factor 1 — Cognitive evaluation of attractiveness, Factor 2 — Socio-economic and cultural similarity, Factor 3 — Tourist services and attractions, Factor 4 — Cultural attractions, Factor 5 — Poor tourist services,

Table 3: Descriptive statistics of some key variables

Variables	Response categories	Frequency	%
Familiarity with Turkey			
	Very familiar	3	0.9
	Quite familiar	2	0.6
	Fairly familiar	18	5.5
	Slightly familiar	88	27.0
	Not at all familiar	215	66.0
Propensity to travel			
	Very likely	78	23.9
	Somewhat likely	67	20.6
	Not very likely	73	22.4
	Not at all likely	106	32.5
Will choose Turkey as an international vacation destination at any time in the future			
	Very likely	8	2.5
	Somewhat likely	73	22.4
	Not very likely	118	36.2
	Not at all likely	125	38.3
Will choose Turkey as my next international vacation destination			
	Very likely	2	0.6
	Somewhat likely	11	3.4
	Not very likely	99	30.4
	Not at all likely	212	65.0

Note: Percentage totals may not equal 100 due to missing values

Factor 6 — Reassuring/safe/calming, Factor 7 — Comforting/relaxing and Factor 8 — Perceived cost of vacation. Items contained in each domain were relatively stable within their respective factor groupings, as indicated by Cronbach's alpha reliability coefficients ranging from a high of 0.94 (Factor 1) to a low of 0.62 (Factor 8).

The first factor, Cognitive evaluation of attractiveness, included 11 items such as Turkey as a tourist destination is valuable/ worthless; Turkey as a tourist destination is interesting/uninteresting; Turkey as a tourist destination is important/unimportant. With an eigenvalue of 12.61, this factor explained 31.5 per cent of the total variance. The alpha reliability coefficient was 0.94, the highest for this factor. The second factor, Socio-economic and cultural similarity, included nine items such as the food in Turkey is similar to ours; Turks dress similar to Americans; local architectural styles in Turkey are similar to US styles. The second factor had an eigenvalue of 4.09 and explained 10.2 per cent of the variation in the dataset. This domain had a reliability alpha of 0.88. The third factor, Tourist services and attractions, relates to tourism attractions and services provided to travellers.

Table 4: Results of factor analysis of image items

Description image items	Cognitive evaluation of attractiveness	Socio-economic and cultural similarity	Tourist services and attractions	Cultural attractions	Poor tourist services	Reassuring/ safe/calming	Comforting/ relaxing	Perceived cost of vacation
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8
As a tourist destination Turkey is valuable/worthless	0.858							
As a tourist destination Turkey is interesting/uninteresting	0.839							
As a tourist destination Turkey is important/unimportant	0.803							
As a tourist destination Turkey is attractive/unattractive	0.796							
As a tourist destination Turkey is meaningful/meaningless	0.777							
As a tourist destination Turkey is good/ bad	0.770							
As a tourist destination Turkey is useless/ useful	0.768							
As a tourist destination Turkey is beautiful/ugly	0.714							
As a tourist destination Turkey is undesirable/desirable	0.699							
As a tourist destination Turkey is positive/ negative	0.690							
As a tourist destination Turkey is boring	0.680							
The food in Turkey is similar to ours		0.788						
Turks dress similar to Americans		0.749						
Local architectural styles in Turkey are similar to US styles		0.728						
Turkish lifestyles and customs are quite similar to ours		0.710						

Table 4: (continued)

Description image items	Cognitive evaluation of attractiveness	Socio-economic and cultural similarity	Tourist services and attractions	Cultural attractions	Poor tourist services	Reassuring/safe/calming	Comforting/relaxing	Perceived cost of vacation
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8
Turkey's highways and roads are in good condition		0.675						
Women are socially liberated in Turkey		0.661						
Turkey has excellent skiing opportunities		0.620						
Turks have a high standard of living		0.596						
Many people speak English in Turkey		0.574						
Tours/excursions are readily available for Turkey			0.775					
There are many package vacations available in Turkey			0.628					
Turkey has important museums and art galleries			0.618					
Turkey is good place to go for beaches			0.606					
Tukey's cities are attractive			0.469					
Turkey has rich cultural heritage				0.719				
Turkey has unique architectural styles				0.661				
Turkey has many archeological treasures				0.580				
Turkey is a predominantly Islamic country				0.533				
It is difficult to get good service in restaurants and hotels in Turkey					0.721			
Shopping facilities are poor in Turkey					0.693			
There is frequent political unrest in Turkey					0.662			
As a tourist destination Turkey is stressful/calming						0.717		
As a tourist destination Turkey is scary/reassuring						0.686		
As a tourist destination Turkey is safe/dangerous						0.445		

Table 4: (continued)

Description image items	Cognitive evaluation of attractiveness	Socio-economic and cultural similarity	Tourist services and attractions	Cultural attractions	Poor tourist services	Reassuring/ safe/calming	Comforting/ relaxing	Perceived cost of vacation
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8
As a tourist destination Turkey is comforting/terrifying							0.879	
As a tourist destination Turkey is relaxing/stressful							0.862	
Prices are low in Turkey								0.763
As a tourist destination Turkey is expensive/inexpensive								0.756
Good and services are expensive in Turkey								0.737
Eigenvalues	12.609	4.093	2.463	1.918	1.854	1.454	1.227	1.133
% of variance explained	31.52	10.23	6.16	4.79	4.63	3.63	3.06	2.83
Cronbach's alpha	0.94	0.88	0.82	0.73	0.64	0.79	0.92	0.62

Notes: Extraction method: maximum likelihood
Rotation method: Varimax with Kaiser normalisation
Cumulative proportion of variance explained by five factors = 66.87 per cent
KMO mesure of sampling adequacy = 0.896

This factor, containing five items, was able to explain an additional 6.16 per cent of the variance and contained items such as tours/excursions are readily available for Turkey; there are many package vacations available in Turkey; Turkey is a good place to go for beaches and so on. Factor 4 was comprised of four descriptors: Turkey has a rich cultural heritage; Turkey has unique architectural styles; Turkey has many archeological treasures; Turkey is a predominantly Islamic country. Factor 4 items explained nearly 5 per cent of the error variance in the dataset with an eigenvalue of 1.92. Factor 5, Poor tourist services, contained three items explaining an

additional 4.63 per cent of the variance: it is difficult to get good service in restaurants and hotels in Turkey; shopping facilities are poor in Turkey; and there is frequent political unrest in Turkey made up this factor. Reassuring/ safe/calming, the sixth factor, included three descriptors: Turkey as a tourist destination is ...stressful/calming; ...scary/reassuring; and ...safe/dangerous. This factor had an eigenvalue of 1.45, explaining 3.6 per cent of the total variance. The reliability alpha coefficient for this factor was 0.79. With an eigenvalue of 1.23, explaining an additional 3.06 per cent of the total variance, the seventh factor was Comforting/relaxing. Although it is advisable to have at least three items to delineate a factor, this factor included only two image items: Turkey as a tourist destination is ...comforting/terrifying; and Turkey as a tourist destination is ...relaxing/stressful. However, the reliability alpha of this factor was high ($\alpha = 0.92$), meaning that these two items were stable within this factor. The last factor, Perceived cost of vacation, had an eigenvalue of 1.13 with an explanation of 2.83 per cent of the total variance. The reliability was the lowest on this factor, with a Cronbach's alpha value of 0.62.

Results of means difference tests

The first group of hypotheses stating neutrality in image evaluation regarding all factors was tested by using a one-sample t-test (H1: Turkey's images among the students are neither positive nor negative). Table 5 shows the mean of image factors and t-values, along with their probability values and 99 per cent confidence intervals of the differences. An examination of Table 5 suggests that all factors, with the exception of Factor 6, were significantly different from a point value of 3.5 (a neutral value on a six-point Likert-type scale). Students had positive images of Turkey for Factors 1, 3, 4, 5, 7 and 8. Factor 2 was found to be statistically different from neutral image ($t = -12.886$, $p < 0.000$); indeed, this image factor was negative according to the mean value of 2.81. In other words, lower scores were given to the items describing the state of the socio-cultural and economic similarity between the respondents' own culture and that of Turkey. However, the reader should note that this factor does not mean that Turkey's image regarding this item was negative; this factor may or may not be viewed as a negative image depending upon the direction and magnitude of the influence it exerts on choice decisions in a predictive model.

Table 5: Results of one-sample *t*-test

	Degrees of freedom	Mean	Std. deviation	Mean difference	t-value	p-value
Cognitive evaluation of attractiveness — Factor 1	264	4.36	1.28	0.866	10.957	0.000*
Socio–economic and cultural similarity — Factor 2	259	2.81	0.869	−0.694	−12.886	0.000*
Tourist services and attractions — Factor 3	255	3.69	0.953	0.185	3.108	0.002*
Cultural attractions — Factor 4	259	4.19	1.029	0.694	10.877	0.000*
Poor tourist services — Factor 5	267	3.36	0.887	−0.139	−2.569	0.011*
Reassuring/safe/calming — Factor 6	269	3.61	1.244	0.106	1.402	0.162
Comforting/relaxing — Factor 7	271	4.18	2.195	0.678	5.096	0.000*
Perceived cost of vacation — Factor 8	254	3.68	0.958	0.182	3.040	0.003*

*Significant at the 0.05 alpha level

Moreover, it is possible for a potential traveller to seek destinations that are different from their own culture. Consequently, this factor should not be viewed as negative. A close inspection of Table 5 also points out that one needs to evaluate the statistical results cautiously. Specifically, mean differences and confidence intervals suggest that, in all cases, the difference is less than one point on a six-point scale. If the null hypotheses were constructed in a way that required at least one full point difference from 3.5 (a range of values between 3 and 4), all the null hypotheses would have been accepted. However, such stringent requirements in hypothesis development are not reported in the existing literature in travel and tourism; thus, the interpretation of the significance test reflects the tradition established.

To test the second hypothesis (H2) that states familiarity with Turkey will not have an effect on how people perceive Turkey, independent sample t-tests were conducted for each image factor. In order to overcome the small sample size distribution among the response categories, the original coding of familiarity variable on a five-point scale has been altered to dummy coding. The new 'familiar' category (coded 1) consisted of very familiar, quite familiar, fairly familiar and slightly familiar anchors. 'Not familiar' was comprised of only one anchor, not at all familiar (coded 0). This manipulation of the data coding may be criticised, nonetheless, the authors consider the benefits gained far outreach costs since coding this way made it possible to test the hypotheses statistically. Table 6 demonstrates the results of t-tests, along with means and standard deviation of image factors. Hypothesis 4 was rejected and the alternative hypotheses were accepted for three of the eight image factors. The mean scores for image Factors 1, 3 and 4 were significantly higher for people who considered themselves familiar. The rest of the factors did not differ statistically for the two groups. Students who were familiar with Turkey had higher cognitive evaluation scores of the attractiveness of Turkey than the group who were not familiar ($t = 1.99$, $p = 0.048$). Similarly, tourist services/attractions (Factor 3), and cultural attractions (Factor 4) were rated higher by the familiar group of students, as indicated by t-values of 3.255 and 3.142 for the two factors respectively. It seems that overall images of Turkey are evaluated as either positive or neutral (at least not negative).

Results of logistic regression

Logistic regression was used to test hypothesised relationships between all image factors (H$_4$), familiarity with Turkey (H$_5$), respondents' socio-demographic characteristics (H$_6$) and choice of Turkey as a vacation destination. Two separate measures of de-pendent variables (DV) — choosing Turkey as an international vacation destination any time in the future (DV1) and choosing Turkey as the next international vacation destination (DV2) — were used to test the above model. As explained earlier the logistic regression coefficients are usually interpreted as the change in the log odds, associated with one unit change in the independent variables. Accordingly, the Exp (B) column in Tables 7 and 8 indicates the odds of a particular person's inclusion in one group or the other. For example, for Factor 1, the Exp (B) is greater than one (3.700) in the first model (Table 7), while the same factor in Table 8 has a value of 16.62; when images change/increase by one unit, the odds of a person choosing Turkey as their vacation destination increases by a factor of three and 16 times respectively. Similarly, in Table 8, a one unit decrease in perceived costs increases the chances of an individual taking their next trip to Turkey by a factor of 3.703.

For the first dependent variable (DV1), the -2LL for the full model was 167.99, versus 225.47 of the model containing only the constant. The model chi-square was significant ($\chi^2 = 57.48$, df 3, $p < 0.0001$), indicating that the model containing the aforementioned variables was a significant improvement over the null model accepting the alternative hypothesis (H$_3$). Of respondent students, 80.32 per cent were correctly classified into travellers to Turkey and non-travellers using this model (Figure 1). The alternative hypothesis (H$_4$), stating that all image factors will have a direct relationship to increasing the odds of choosing Turkey as a vacation destination, could only be accepted for three of the eight image factors. More specifically, Factor 1, Cognitive evaluation of attractiveness ($\beta = 1.308$, $W = 26.59$, $p < 0.0001$, $R = 0.330$), Factor 3, Tourist services and attractions ($\beta = 0.818$, $W = 13.228$, $p < 0.0003$, $R = 0.223$), and Factor 7, Comforting/relaxing ($\beta = 1.016$, $W = 6.164$, $p < 0.0013$, $R=0.136$) had positive effects on increasing the odds of choosing Turkey as a vacation destination. None of the other independent variables was significant in explaining the odds of choosing Turkey as a vacation destination; hence the null hypotheses H$_5$ and H$_6$ were accepted.

Table 6: *T-test results for equality of image scores for respondents who are familiar and unfamiliar with Turkey*

	Familiar	N	Mean	Std. deviation	t-value	p-value
Cognitive evaluation of attractiveness — Factor 1	Not familiar	185	4.26	1.279	−1.990	0.048*
	Familiar	80	4.60			
Socio-economic and cultural similarity — Factor 2	Not familiar	179	2.77	0.912	−1.040	0.299
	Familiar	81	2.89			
Tourist services and attractions — Factor 3	Not familiar	176	3.56	0.948	−3.255	0.001*
	Familiar	80	3.97			
Cultural attractions — Factor 4	Not familiar	178	4.06	1.054	−3.142	0.002*
	Familiar	82	4.49			
Poor tourist services — Factor 5	Not familiar	183	3.34	0.900	−0.493	0.622
	Familiar	85	3.40			
Reassuring/safe/calming — Factor 6	Not familiar	187	3.56	1.237	−0.850	0.396
	Familiar	83	3.70			
Comforting/relaxing — Factor 7	Not familiar	189	4.13	2.505	−0.491	0.624
	Familiar	83	4.28			
Perceived cost of vacation — Factor 8	Not familiar	178	3.67	0.972	−0.302	0.763
	Familiar	77	3.71			

*Significant at $p < 0.05$

Table 7: Estimated odds of choosing Turkey as a vacation destination any time in the future

Variable	β	S.E.	Wald	df	Sig.	R	Exp(B)
Factor 1	1.309	0.2537	26.591	1	0.000	0.3302	3.700
Factor 3	0.819	0.2251	13.228	1	0.000	0.2232	2.267
Factor 7	1.017	0.4096	6.164	1	0.013	0.1359	2.765
Constant	−1.297	0.2207	34.532	1	0.000		

n = 326
Number rejected because of missing data: 138
Number of cases included in the analysis: 188

Classification table for choosing Turkey as the vacation destination any time in the future   Figure 1

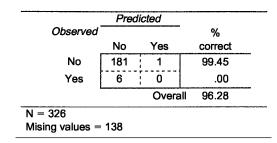| Observed	Predicted		%
	Yes	No	correct
No	123	11	91.79
Yes	26	28	51.85
		Overall	80.32

N = 326
Missing values = 138

For the second dependent variable (choosing Turkey as the next international vacation destination), the -2LL for the full model was 32.67 versus 53.14 of the model containing the constant only. The model chi-square was significant (χ^2 = 20.469, df = 3, p < 0.0001), indicating that the model including independent variables was a significant improvement over the null hypothesis accepting the alternative hypothesis (H$_3$). Of respondents, 96.28 per cent were correctly classified into non-travellers and travellers to Turkey using this model (Figure 2). The alternative hypothesis (H$_4$), stating all image factors will have a direct relationship to increasing the odds of choosing Turkey as a vacation destination, could also be accepted for only three of the eight image factors. In this model, Factor 1, Cognitive evaluation (β = 2.801, W = 8.619, p < 0.0033, R = 0.353) and Factor 7, Comforting/relaxing (β = 0.522, W = 3.919, p < 0.0477, R=0.190) had positive effects on the choice of Turkey as the next vacation destination. Factor 8, Perceived cost of vacation (β = -6.262, W = 5.134, p < 0.0235, R = 0.243) had negative effects on destination choice of students. None of the other independent variables was a significant factor in explaining the choice of Turkey as the next vacation destination; hence the null hypotheses H$_5$ and H$_6$ were accepted.

Table 8: Estimated odds of choosing Turkey as the next vacation destination

Variable	β	S.E.	Wald	df	p-value	R	Exp(B)
Factor 1	2.811	0.957	8.619	1	0.003	0.353	16.620
Factor 7	0.522	0.263	3.920	1	0.048	0.190	1.685
Factor 8	1.310	0.579	5.134	1	0.023	0.243	3.703
Constant	−6.262	1.492	17.618	1	0.000		

n = 326
Number rejected because of missing data: 138
Number of cases included in the analysis: 188

Figure 2   *Classification table for choosing Turkey as the next vacation destination*

		Predicted		%
Observed		No	Yes	correct
No		181	1	99.45
Yes		6	0	.00
			Overall	96.28

N = 326
Mising values = 138

CONCLUSION AND IMPLICATIONS

Although students represent a growing market for tourism products, researchers have failed to devote much attention to understanding their needs, wants, motives and perceptions, with the exception of a few studies.[45,46] This study attempted to gain a better understanding of the role of images in destination choice of potential travellers using student samples from various geographical regions of the USA. Testing hypotheses based on well-grounded theoretical variables does not necessarily require a random sampling. Indeed, a more homogeneous sample is preferable, since such a sample would provide more control over other uncontrollable factors. Hence the researcher's ability to control exogenous factors and thereby isolate the real effects of study variables can be substantially increased (see Um and Crompton[47] and Griffith and Albanese[48] for a discussion about the legitimacy of using student samples for testing purposes).

According to an evaluation of image research, MacKay and Fesenmaier[49] pointed out factors such as demographics, culture, familiarity and visual attributes of a destination as important to image assessment. Although familiarity is considered to be intrinsically linked to image formation processes, very little was known about its unique contribution to an overall model of destination choice. The present study has attempted to close this gap in the literature. First, images of a less industrialised country (Turkey) were assessed and evaluated against a null hypothesis that these images were neither negative nor positive. Some image factors have been found to be positive and others neutral. Six out of eight image factors (Factors 1, 3, 4, 5, 7 and 8) were positive. Accordingly, from a marketing perspective it appears that Turkey's position in the minds of the respondents were largely positive. However, when evaluated in a predictive model, only three of these factors, Factor 1, Cognitive evaluation of attractiveness, Factor 3, Tourist services and attractions, and Factor 7, Comforting/relaxing, were found to impact significantly on the odds of a person choosing Turkey as a vacation destination. It seems that people can compartmentalise their mental pictures and evaluate each image component according to its importance in choice decisions. In this respect, Turkish tourism promoters and developers must take into account that not all images play an equally important role in portraying images of Turkey. Some must be managed more effectively than others, especially when the image turns out to be a negative one. However, even when images are positive, some need to be emphasised more than others. In this special case with a limited sample, Factor 1, Cognitive evaluation of attractiveness, Factor 3, Tourist services and attractions, and Factor 7, Comforting/relaxing were found to be better predictors for increasing the odds of a person's travel to Turkey. For this subsegment of the travel market, marketers should stress these image dimensions of Turkey in designing promotional materials when the travel decision is not immediate. However, when the travel decision is made swiftly (like choosing the next travel destination), 'Perceived cost of vacation' will be of great importance for this group of potential travellers. This result is not surprising, because as travellers begin making their travel decisions they assess the attractiveness of a destination first. In subsequent phases of decision making, consumers begin to deal with constraints as costs are introduced. Since the second dependent variable measured the choice of the next destination, as the students were likely to be in the process of selecting a destination from their evoked sets, they may have been assessing the afford-ability of the vacation. This may be theoretically possible according to constraints literature, which suggests that constraints enter decision making during the later phases of the selection process.[50] Tourism marketers who want to promote Turkey as a vacation destination must be aware that perceived cost is an important determinant in

choice decisions, especially for this particular segment of the market. Consequently, in their advertising marketers must emphasise the vacation as bargain and good value compared to other competing destinations such as Greece and Egypt.

Familiarity has been found to play an important role in image formation, but its contribution to choice decisions has not been well established in the literature. In this study, familiarity, when included as an independent variable into the choice model, did not seem to affect the odds of travelling to a destination directly. When the relationship between image and familiarity was tested, however, it was apparent that three of the eight image factors were different for subjects who indicated that they were familiar with Turkey, implying that familiarity may not be directly related to choice decisions but may have an indirect effect via image formation — confirming earlier conclusions about the effect of familiarity in image formation.[51,52] In this regard, familiarity can be considered as a moderator variable in decision-making models, and partially related to various components of image.

In conclusion, despite the limitations of the study sample, the findings of this study provide important insights into the role of images in destination-choice decisions of potential travellers, and therefore have significant implications for researchers and practitioners alike. The current study has enhanced the body of literature on image by testing various hypotheses regarding relatively unknown destination in the US market using a sample of college students. Determining the effect of images in choice decisions in a probabilistic model when two measurements of the dependent variable are involved further enhances research in this area. The findings of the study should be interpreted in the light of its limitations. One limitation has been the use of non-probability sampling. The external validity of the study has not been yet established; therefore, the study findings cannot be generalised beyond this sample of students. Future research can utilise a more representative sampling frame to resolve the external validity question before marketers commit them-selves to the image themes identified in this study. Moreover, future research in this area must assess the interrelationships between images and other decision-making factors within a causalistic model (such as path analysis and structural modelling). Moreover, since travel behaviour is a complex phenomenon, future studies must involve not only images of a single destination such as Turkey, but also the relative position of that destination among competing destinations (in this case, perhaps contrasting images of other Mediterranean countries such as Greece, Egypt, Israel, Tunisia, Italy and Spain which compete for the same market of travellers). In addition, logically potential travellers' personal values and lifestyles would have a bearing on the types of vacations and destinations they select. Finally, images of recent world events carried by global media (political turmoil and natural disasters) are likely to have a significant impact not only on image formation and destination choice but also on whether or not travel plans are actually carried out. Understanding the role of images and their interaction with variables such as values and lifestyles of individuals would provide a better picture about the decision-making processes of potential travellers.

Managing images of potential travellers is a challenge for destination marketers and developers. The complex nature of image formation and the influence of images on travellers' destination choices have interested researchers for over three decades. The evidence accumulated thus far suggests that images indeed play a major role in information processing in general and destination-choice decisions in particular. Thus, not surprisingly, tourism marketers 'seek to establish, reinforce, or change image. Their goal is to match to the greatest extent possible the promoted and perceived image'.[53] The sporadic nature of destination image formation research, the lack of probabilistic models that explain relationships between choice decisions of specific consumer groups and actual destination images, and the wide research gap between destinations in high-income countries and low-income countries appear to hinder the evolution of tourism image theory into a body of knowledge that marketers can use effectively in further understanding subsegments of the travel market. Further research should concentrate on resolving these elusive issues. The present study was a step towards that end.

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