# Modeling Destination Attributes and Tourist Attitudes towards the Island Garden City of Samal

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## Abstract

*The study aimed to understand the attitude of tourists, both foreign and local, towards the Island Garden City of Samal, Philippines. A predictive correlational design, in testing the proposed model depicting the relationship of island destination attributes and tourist attitude towards the destination was employed. A cross sectional approach, to data gathering was also employed and the survey, was the main method of gathering the needed data. The profile of the respondents and the attributes of the island destination were analyzed using descriptive statistics; while the hypotheses of the study were tested using the multiple linear regression on employing the stepwise method. The results of the study indicated that majority of the tourists, who visit the island are between 31-45 years old. The destination attributes, which significantly predict the attitude of Filipino tourists, are water and power, accessibility and cost to travel, prices, landscape, and transportation facilities. Among the foreign tourists, the prices, climate and weather, and transportation facilities significantly predict their attitude. However, when the moderating effects of the demographic variables were investigated, among foreign tourists, no significant results were found. Comparatively, the Filipino tourists showed a more positive overall attitude than the foreign tourists.*

***Keywords:*** *Destination Attributes, Tourist attitudes, Island Garden City of Samal*

## Introduction

International tourism is a fast growing industry generating a half trillion dollars in annual revenues and accounting or almost 10% of the total international trade, and almost half of the total trade in services (Eilat & Einav, 2004). For many regions, tourism has become one of the most significant economic activities in terms of economic growth and employment (Eugenio-Martin, 2003). World Tourism Organization figures show that in 1990, countries' receipts from international tourism were $264 billion; in 1995, they were $400 billion; by 2000 they reached almost half a trillion dollars; and, in the year 2020, they are expected to reach the two trillion dollar mark (Eilat & Einav, 2004).

In the Philippines, the Department of Tourism is mobilizing its resources to develop or improve destinations, especially, those that are frequented by domestic and foreign tourists, those that have the potential to become tourist havens. Global or International hotel and resort chains are now located in the tiny island of Boracay manifesting their confidence of its future demand growth.

The importance of the tourism industry underscores the need for a better understanding of the main drivers affecting the choice, and later, the evaluation of tourism destination by consumers. Tourists' overall experience is composed of numerous small encounters with a variety of tourism principals, such as taxi drivers, hoteliers and waiters, as well as elements of the local attractions such as museums, theaters, beaches, and theme parks (Zouni & Kouremenos, 2008). It has long been recognized that the visitor experience is at the heart of the destination product (Swarkbrooke, 2002; Jennings & Nickerson, 2006). Despite the recognition, the majority of researchers agree that tourism experiences have, to a considerable extent, been under researched (Larsen, 2007; Connell & Meyer, 2004).

Davao City (the more developed neighbor of Samal Island) has already evolved significantly since the first time they staged the Kadayawan festival. However, the focal point of this study is the Island Garden City of Samal or simply Samal Island.

Samal Island became a city; it was declared a tourism estate, during the administration of President Fidel V. Ramos, 12 years ago. With the declaration of Samal Island, as a

tourism estate, the development of the mariculture farm, mangrovetum and the creation of the Aundanao fish sanctuary, through the effort and initiative of the local government had geared towards tourism traffic. However, it is not clear whether these improvements that were introduced have attracted tourists and elicited a favorable attitude towards development.

Thus, the study was undertaken to find out which attributes of the island destination being studied, which significantly predicts an attitude in making proper recommendations to enhance and to improve continuously a favorable attitude towards the island destination, the Island Garden City of Samal.

**Statement of the Problem**

The study was conducted to determine the attitude of foreign and Filipino tourists towards the Island Garden City of Samal. Specifically, this study answered the following questions:

1. What is the demographic profile of local and foreign tourists who traveled to the Island Garden City of Samal?
2. What model best predict to the attitude of local and foreign tourists towards the island destination?
3. Do the demographic variables of local and foreign tourists significantly influence the relationship between the attributes of a destination and the attitude of tourists?
4. Is there a significant difference in the attitude towards an island destination among local and foreign tourists?

The study sought to test the following null hypotheses:

$H_{01}$: There is no model that best predict the attitude of local and foreign tourists towards an island destination.

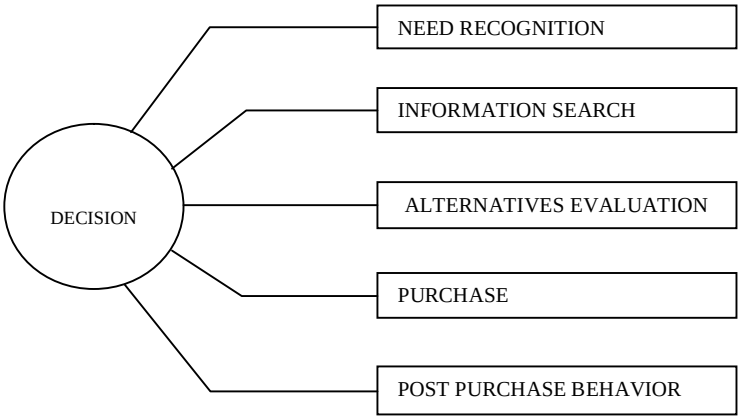
$H_{02}$: The demographic characteristics of local and foreign tourists do not influence the relationship between the attributes of a destination and the attitude of local and foreign tourists towards the destination.

$H_{03}$: There is no significant difference in the attitude towards an island destination among local and foreign tourists.

**Theoretical and Conceptual Framework**

The study is anchored on the theory that a consumer, when contemplating of purchasing a product or a service will go through a decision making process to be able to make the best choice among competing products available (Lamb, Hair, & McDaniel, 2000). As summarized in Figure 1.

Figure 1:
Consumer Decision-Making Process (Source: Lamb, Hair, & McDaniel, 2000)

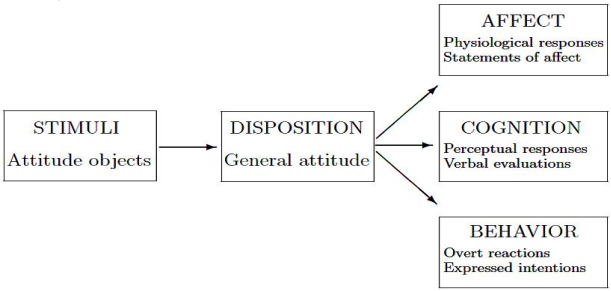



The process starts when a consumer feels a certain need. In order to satisfy the need, the consumer then looks for products or services that correspond to the felt need based on his or her reckoning. The model suggests that it is likely in the process of searching for information and data, that the consumer finds more than just one product or service available in the market. Hence, the consumer will be engaged in a process that evaluates the competing alternatives.

Another model, which complemented the operationalization of study variables, is the Tripartite Model of Attitude developed by Rosenberg & Hovland (1960) as cited in Byrka (2009). The model embodies the process a consumer goes through in coming to a decision to engage or purchase a certain product or service. It fortified the concept that the products or services are stimuli that elicit responses from consumers who avail or experience them. This model played a vital role in the formulation of hypothesis that island

destination attributes predict the attitudes of tourists who had an experience with the various attractions in the island.

Figure 2:
Diagram of the Tripartite Theory of Attitude (Source: Byrka, 2009)




The Tripartite Model of Attitude suggests that environmental stimuli represent attitude objects that elicit dispositions – referred to as general attitude. The model, further, classifies general attitudes to be affective, cognitive or behavioral in nature. The affective attitude, further, consists of evaluations and feelings that are either verbally expressed or detected as physiological reactions to an attitude object. Cognitions are perceptual responses in relation to environmental stimuli which could be manifested through verbal evaluations. Lastly, behavioral responses can be either expression of behavioral intentions observed acts (Ajzen, 2005). All the three types of responses are considered as external, observable cues to infer a latent attitude construct (Byrka 2009).

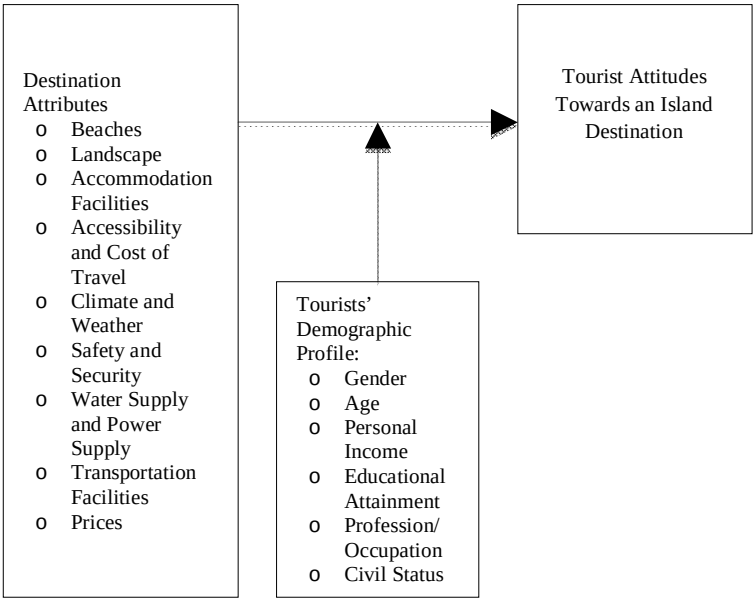
By way of conceptual framework, the two models served as theoretical underpinnings in the formation of the conceptual framework for this study are presented in Figure 3. In this work, the evaluation of alternatives and actual purchases are embodied in the external forces which are represented by the attributes of a destination. The tourist attitudes towards an island destination, after having had an experience with the attractions therein, are conceptualized to capture the post-purchase behavior in the consumer decision process model.

It must be noted, though, that tourist attitude toward an island destination, which is the outcome variable in the conceptual framework, pertains to the affective component of the general attitude – constructed in Byrka's model. It does not cover the cognitive and behavioral components; hence, it shall

deal with physiological responses manifested through statements of affect.

Figure 3

Conceptual Framework Showing the Relationships of the Variables




The attributes, included in the model, came from the result of the focus group discussion, for the purpose of finalizing the set of attributes, which will reflect the attractors of the island destination being studied.

The outcome variable, *tourist attitude*, is referred to as the predisposition of the individual to evaluate a particular object in a favorable or unfavorable manner (Katz, 1960). This evaluative nature of attitude is an agreement arrived at by modern-day researchers (Eagly & Chalken, 1993). Accordingly, it has to be inferred on the basis of tangible responses to an attitude stimulus (Ajzen, 2005). The attitude stimulus referred to in the conceptual framework is the island destination attributes.

## Methodology

The present work employed a correlational design in testing the proposed model depicting the relationship of island destination attributes and tourist attitudes toward the destination. With this design, the attitudes of tourists toward

the island destination, which is the outcome variable, were regressed with the island destination attributes, which are predictor variables. The moderating effect of the identified demographic variables was also investigated using this approach.

A cross-sectional approach to data gathering was employed. The data pertaining to the predictor, moderator and outcome variables, as indicated in the framework, were therefore collected in one setting. The survey was the main method of gathering the needed data.

This study was conducted in the Island Garden City of Samal (IGaCoS). The island is a coastal paradise at the heart of Davao Gulf with 118 kilometers of coastlines and with 9 clusters of islets. It is part of Davao Del Norte, which was established by virtue of R.A. 8471. It has a total land area of 30,130 hectares; inhabited by approximately 92,000 people (City Planning & Development Office – LGU IGaCoS, 2008).

There are 46 registered beach resorts in IGaCoS; an average of 800 tourists who are visiting the island. Because of the city's developments, particularly in the tourism sector, it is considered uniquely "urbanizing" community in a rural setting (City Planning & Development Office – LGU IGACOS, 2008).

The tourists, whether local or foreign, have been to at least three out of the following attractions of the island namely: Blujaz waterpark and resort, Maxima resort, Bat cave, Hagimit falls and any other resort that is operating on the island. Blujaz water park boasts of a giant slide that is touted to be the biggest in Mindanao. Maxima resort has a long slide that juts out into the sea where one would land when going through it. The Bat cave is the home of the largest colony of fruit eating bats, and the Hagimit falls has three tiered cascading waterfalls which make a suitable place for swimming.

The respondents of the study were the foreign and Filipino tourists who visited and experienced the IGaCoS. From this population, individuals who have visited at least three island attractions were selected to participate in the survey. The island attractions referred in the survey were: bat cave, Hagimit falls, Maxima resort, Blujaz water park and any of the beach resorts.

Since it was difficult to determine the population of inbound tourists who had experienced with the attractions

within the island, a sample size determination formula for the unknown populations was utilized.

The formula of Black (2010) and Roberto (2002) states that $n = Z^2\left(\frac{p(1-p)}{e^2}\right)$, where:

$n$ = is the sample size

$Z$= is the value under the normal curve for an identified level of confidence

$p(1–p)$ = is the maximum data variation

$e$ = is the margin of error

Working on the formula, the sample size is:

$$n = \frac{(1.96)^2(0.25)}{(0.05)^2} \quad (1)$$

$$n = \frac{3.8416(0.25)}{0.0025} \quad (2)$$

$$n = 384.16 \approx 385 \quad (3)$$

It is suggested that an estimated 20% non-response rate should be considered. In the computation made below, a range of between 385 and 482 tourists were asked to participate in the survey.

$$n = \frac{385}{0.8} \quad (1)$$

$$n = 481.25 \approx 482 \quad (2)$$

The actual number of foreign (n=152) and Filipino (n=240) tourists was 392. After the sample size was determined, the sample selection was employed the purposive sampling approach was used. We have one or more specific predefined groups. The first action taken was to verify if the respondents, in fact, had met the criteria. The purposive sampling is useful, for situations, where you need to reach a targeted sample quickly. With purposive sampling, the opinions of the respondents were taken.

The selection was done by assigning research assistants to identify some strategic points in the island, where the

probability of tourists, having visited at least three attractions is high. The research assistants were tasked to ask some prospective tourists who have entered the attractions covered in the study.

The researcher had developed the data gathering instrument; it consisted of three parts: Part 1, was intended to gather information about the demographic profile of the respondents, (information about the age, gender, household income, educational attainment and civil status of the respondents were asked in this part); Part 2, was a 7-point bi-polar scale that is patterned from Lehman, Gupta & Steckel (1998), which was intended to measure tourists' perceptions about the attributes of the island destination. A response of 7 would indicate that they "tremendously like" to the description of the attribute. On the other hand if they answer 1, it means that they "tremendously dislike" to the description of the attribute; and Part 3, was designed to measure tourists' attitudes towards the island destination; this part of the instrument also had employed a bi-polar scaling (Lehman, Gupta, & Steckel, 1998). The respondents were asked to respond from 7-point scale where 7 is "*tremendously like"* and 1 is "*tremendously dislike*".

In determining the attitude of tourists towards the island destination, the means were interpreted using the scale formulated by the researcher.

| **Mean** | **Description** |
|---|---|
| 1 to 1.4 | Tremendously dislike |
| 1.41 to 2.8 | Dislike |
| 2.81 to 4.2 | Neither dislike nor like |
| 4.21 to 5.6 | Like |
| 5.61 to 7 | Tremendously like |

The instrument was tested for validity and reliability. The validity of the instrument was established through expert validation. Three experts with PhD degrees, in the field of measurement and evaluation indicated the content validity of the instrument. Moreover, the matrix below contains the results of reliability analysis:

Reliability Indices of the Attributes and Attitudes Scales:

| Scale | Cronbach α | Description |
|---|---|---|
| Water and power supply | .94 | Excellent |
| Beaches | .92 | Excellent |
| Accommodation facilities | .92 | Excellent |
| Landscape | .89 | Good |
| Safety and security | .88 | Good |
| Transportation facilities | .87 | Good |
| Accessibility and cost to travel | .86 | Good |
| Prices | .86 | Good |
| Climate and weather | .86 | Good |
| Overall attributes | .98 | Excellent |
| Attitudes | .94 | Excellent |

The classification of Cronbach's coefficient α values used by Chang & Fisher (2003) & Garson (2007) was considered in this study. It can be said that the Beaches (α=0.92), Accommodation facilities (α=0.92), Water and power supply (α=0.94) subscales had "excellent" reliability. The reliability of the other subscales of the destination attributes instrument could be construed as "good". The overall destination attribute scale, as well as attitude scale, had "excellent" reliability of (α=0.98) and (α=0.94) respectively.

A Focus Group Discussion (FGD) was conducted for the purpose of determining critical island destination attributes as predictor variables. A total of 8 individuals participated in the FGD. The group consisted of resort owners, managers and officers of the various attractions in the island. The subscales included in the island destination attributes scale were an output of the content analysis conducted over the FGD data.

Items in the survey instrument were then written. When the final form of the questionnaire was prepared, three experts were then asked to evaluate the instrument for content validity. After the content validity of the questionnaire, research assistants were then recruited and trained to administer the questionnaire. The actual data gathering then ensued in the research locale. The research assistants went into the different attractions covered in the study. Foreign and local tourists encountered in the attractions who consented to participate in the study were made to complete the survey instrument.

The completed questionnaires were collected and prepared for encoding and tabulation. Responses from the questionnaires were processed and encoded using the MS

Excel. Data encoders were hired to perform the task. The researcher reviewed the MS Excel database to ensure that the encoding was properly done following the designed template.

The profile of the respondents and the attributes of the island destination were analyzed using descriptive statistics, particularly, the mean, standard deviation, frequency and percentages.

The null hypothesis, if the attributes of the island destination do not significantly predict the attitudes of tourists toward the destination, was tested using multiple linear regression analysis. The hypothesis on the moderating effects of the demographic variables towards the relationship between island destination attributes and tourist attitudes was also tested using multiple linear regressions. The stepwise method was employed in entering the predictor variables in the model. The null hypotheses were tested at 0.05 level of significance.

Multiple stepwise regression analysis is a statistical technique that can be used to analyze the relationship between a single dependent (criterion) variable and several independent (predictor) variables. The objective of multiple regression analysis is to use the independent variables whose values are known to predict the single dependent value selected by the researcher (Hair et al., 2005). In this study, the main effects of regression variates were generated using the uncentered data. On the other hand, the moderated regression variates were generated using centered data. Centering was done by subtracting the mean of a variable from each of the observation in that variable. The data transformation approach is noted to arrest multicollinearity issues that usually occur in moderating effects analysis (Hair et. al., 2005). Furthermore, the variates for both the main effects and moderating effects analysis were further validated by employing the split-sample procedure. This was done by splitting the samples into two, either by random, odd-even and 1st half-2nd half methodology. Rigonan (2003), in his study on sustainable model of eco-tourism in the province of North Cotabato, used split sample test for model validation. In his study on the attraction of Davao City malls and shoppers' preferences, Te (2007) also used split sample procedures for data validation.

**Results and Discussions**

As shown in Table 1, a majority of the foreign (44.1%) and Filipino (49.6%) tourists are aged 31 to 45 years old. This profile could be attributed to the fact that the tourists who responded in the survey were either the parent families who visited the island for a short vacation. And usually parents are within this age range. The foreigners (21.7%) and Filipinos (37.5%) aged 30 years old and below are usually those who come with their friends to explore the island and have some adventure. It is observed that this group is usually composed of young professionals and some college students. These are the relatively young group of tourists who could afford the expenses while staying on the island. While there are foreigners (8.6%) who belonged to the oldest age bracket, none of the Filipino tourists belonged to this group. This small group of foreign tourists is those who usually come to the destination for a short vacation with either their Filipino wives or fiancées.

Table 1:
Age profile of the respondents

| Age | Foreigner | | Filipino | | Overall | |
|---|---|---|---|---|---|---|
| | *f* | % | *F* | % | *f* | % |
| 30 and below | 33 | 21.7 | 90 | 37.5 | 123 | 31.4 |
| 31 to 45 | 67 | 44.1 | 119 | 49.6 | 186 | 47.4 |
| 46 to 60 | 39 | 25.7 | 31 | 12.9 | 70 | 17.9 |
| 61 and above | 13 | 8.6 | 0 | 0 | 13 | 3.3 |
| Total | 152 | 100 | 240 | 100 | 392 | 100 |

Table 2 shows the gender and nationality of the respondents. However, when the distribution was examined separately between foreign and Filipino tourists, it can be seen that there are more males among the foreigners (71.7%). The plurality of males among foreign tourists as observed was consisted of those who came and visited the destination with their Filipino fiancées. There were occasions that female foreigners were observed with their partners and families, but rather, was seldom. Observably, when Filipino tourists would come in groups, usually, there were more females than males; this is true, particularly, among the group of young professionals and college students – As the result indicated, among the local tourists who participated in the study, 65% of the respondents were females and 53% were males.

Table 2:
Gender profile of the respondents

| Gender | Foreigner | | Filipino | | Overall | |
|---|---|---|---|---|---|---|
| | *F* | % | *F* | % | *f* | % |
| Female | 43 | 28.3 | 156 | 65 | 199 | 50.8 |
| Male | 109 | 71.7 | 84 | 35 | 193 | 49.2 |
| Total | 152 | 100 | 240 | 100 | 392 | 100 |

The frequency and percentage on the civil status are shown in Table 3 as observed, a majority of the foreigners were single (69.1%). This finding further clarified that, a majority of the foreign tourists who came in the island destination were males; they visited some places with their Filipino wives and fiancées.

Among the locals, although, evenly distributed in terms of civil status, more than half of them were married (52.5%). This could be due to the addition of facilities that promote family bonding and quality time such as the giant slides in some beach resorts in the island.

Table 3:
Civil status profile of the respondents

| Civil status | Foreigner | | Filipino | | Overall | |
|---|---|---|---|---|---|---|
| | *f* | % | *F* | % | *f* | % |
| Single | 105 | 69.1 | 114 | 47.5 | 219 | 55.9 |
| Married | 47 | 30.9 | 126 | 52.5 | 173 | 44.1 |
| Total | 152 | 100 | 240 | 100 | 392 | 100 |

In terms of educational attainment as shown in Table 4, the majority of the respondents finished either a bachelor or vocational courses (75.5%). However, this is more pronounced among the Filipino tourists (82.9%) than among the foreigners (63.8%). This general observation could be attributed to the possible expenses on the part of the local and international tourists.

Those who did not finish a vocational or college degree are most likely self-employed or engaged in certain businesses which described the group of local tourists. Moreover, a minority of the foreigners (36.2%) were undergraduates. Noticeably, none of the foreign respondents have pursued graduate studies while a small percentage of the Filipinos did (2.9%).

Table 4:
Education profile of the respondents

| Education | Foreigner | | Filipino | | Overall | |
|---|---|---|---|---|---|---|
| | *F* | % | *f* | % | *f* | % |
| College undergrad | 55 | 36.2 | 34 | 14.2 | 89 | 22.7 |
| College/vocational grad | 97 | 63.8 | 199 | 82.9 | 296 | 75.5 |
| Masters/Doctorate | 0 | 0 | 7 | 2.9 | 7 | 1.8 |
| Total | 152 | 100 | 240 | 100 | 392 | 100 |

In Table 5, the majority of tourists are practitioners of their professions (42.9%); businessmen (36.2%); a small percentage are handling managerial positions (6%); and the rest are engaged in occupations other than those specified in the survey (15%). Looking at the data, it can be seen that foreign tourists are more into business (52.6%) while the Filipinos are into professional practices (51.7%).

In general, the occupational profile of the respondents suggests that they have a stable source of income.

Table 5:
Occupation profile of the respondents

| Occupation | Foreigner | | Filipino | | Overall | |
|---|---|---|---|---|---|---|
| | *f* | % | *f* | % | *f* | % |
| Business | 80 | 52.6 | 62 | 25.8 | 142 | 36.2 |
| Professional | 44 | 28.9 | 124 | 51.7 | 168 | 42.9 |
| Manager | 8 | 5.3 | 17 | 7.1 | 25 | 6.4 |
| Others | 20 | 13.2 | 37 | 15.4 | 57 | 14.5 |
| Total | 152 | 100 | 240 | 100 | 392 | 100 |

The income profile of the respondents is shown in Table 6. Most of the respondents have the highest income bracket (68.9%). However, this is largely influenced by the foreign tourists who all reported to have more than $20,001 income per month (100%). Around 25% of the Filipinos have reported with the monthly income of PHP 25,001 to 50,000; less than 10% of them received a monthly income of PHP 25,000 and below.

Table 6:
Income profile of the respondents

| Income | Foreigner | | Filipino | | Overall | |
|---|---|---|---|---|---|---|
| | *f* | % | *f* | % | *f* | % |
| PHP 8,000 and below or $ 3,000 and below | 0 | 0 | 3 | 1.3 | 3 | .8 |
| PHP 15,001-25,000 or $ 5,001-8,000 | 0 | 0 | 21 | 8.8 | 21 | 5.4 |
| PHP 25,001-40,000 or $ 8,001-12,000 | 0 | 0 | 59 | 24.6 | 59 | 15.1 |
| PHP 40,001-50,000 or $ 12,001-20,000 | 0 | 0 | 39 | 16.3 | 39 | 9.9 |
| PHP 50,001 and above or $ 20,001 and above | 152 | 100 | 118 | 49.2 | 270 | 68.9 |
| Total | 152 | 100 | 240 | 100 | 392 | 100 |

The stepwise search procedure, in multiple regression analysis, yielded Model 4 (without moderating variables) as the best model for all tourists (foreign and Filipino) with the highest R Square of 0.815, and the highest Adjusted R Square of 0.813, as shown in Table 7. The indicated R Square value means that 81.5% of the variability in *tourist attitude* can be explained by the independent variables in the model. Furthermore, it can be observed that the value of the Adjusted R Square is very close to the model R Square value; this means that the model can be expected to have no insignificant independent variable (Black 2006).

As indicated in the table, Model 4 also had the lowest variance, as shown by its Standard Error of the Estimate which is 0.34332. This means that in terms of predictability and accuracy, Model 4 performed better compared to all the other three models (Models 1, 2, and 3) as generated by the stepwise search procedure (Black, 2006; Neter, Wasserman, & Kutner, 1990; Gujarati, 1995; Berenson, Levine, & Krehbiel, 2009).

Table 7 also yields a Durbin-Watson Statistic of 1.675, which indicates an acceptable level of serial correlation of residuals. The value of Durbin-Watson statistic ranges from 0 to 4. As a general rule, the residuals are not significantly correlated if the Durbin-Watson statistic is approximately 2, and an acceptable range is 1.50 to 2.50 (Neter, Wasserman, & Kutner, 1990; Gujarati, 1995).

Table 7:
Model 4 Summary

| Model | R | R Square | Adjusted R Square | Standard Error of the Estimate | Durbin-Watson |
|---|---|---|---|---|---|
| 4 | .903 | .815 | .813 | .34332 | 1.675 |

Table 8 indicates that Model 4 has a highly significant F value of 425.256 at $\alpha = 0.05$. This means that at least one of

the independent variables is significant in the model (Black, 2006). This result also implies that the variance explained by the Model 4, which is equal to 82% as indicated by the model $R^2$ is significantly greater than 0 (see Table 7). This further implies that the model has explained a significant amount of variance in the attitude of the tourists toward the destination.

Table 8:
ANOVA

| Model 4 | Sum of Squares | Df | Mean Square | F | P-value |
|---|---|---|---|---|---|
| Regression | 200.494 | 4 | 50.124 | 425.256 | .000 |
| Residual | 45.614 | 387 | .118 | | |
| Total | 246.109 | 391 | | | |

Table 9 shows that all the independent variables in namely, *water and power supply (p-value = 0.000), prices* (p-value = 0.000), *climate and weather* (p-value = 0.002), *and beaches* (p-value = 0.006), are highly significant at $\alpha = 0.05$. This means that these variables can significantly predict the dependent variable, which is the *tourist attitude;* this, their inclusion in the model did not occur by chance (Black, 2006; Berenson, Levine, & Krehbiel, 2009).

Table 9:
Coefficients

| Model 4 | Unstardardized Coefficients, B | t | p-value | VIF |
|---|---|---|---|---|
| (Constant) | 1.128 | 9.603 | .000 | |
| Watpow | .196 | 4.252 | .000 | 6.756 |
| Price | .333 | 8.651 | .000 | 4.174 |
| Climawe | .143 | 3.157 | .002 | 7.251 |
| Beach | .107 | 2.784 | .006 | 5.325 |

The results do not support the rejection of the null hypothesis on the main effects of attributes of the attractions to the attitude of the tourists on the entire destination. Only the component of the hypothesis indicating the insignificance of water and power supply, prices, climate and weather, and beaches, as predictors of destination attitude, is rejected

It is good to note that no Variance Inflation Factor (VIF) value exceeds 10 in Model 4. This means that there is no severe multicollineariy problem in the model (Black, 2006; Berenson, Levine, & Krehbiel, 2009; Neter, Wasserman, & Kutner, 1990; Gujarati, 1995).

The regression variate (Hair, Anderson, Tatham, & Black, 1995) of the Model 4 is shown below:

**attitude=1.128+0.196watpow+0.333price+0.143climawe+0.107beach Eq. 1**

It also shows that each independent variable in Model 4 has a positive t value; hence, all have positive regression slopes or partial regression coefficients, as shown by Eq. 1. This means that each independent variable is positively correlated with *tourist attitude*. This further means that the higher the rating a tourist gives to any of the four independent variables in Model 4, his or her attitude toward a destination becomes more positive.

If any tourist, regardless of the effects of the moderating variables, gives the minimum mean ratings for all attributes of a destination in Model 4, his or her attitude is implied as:

**attitude = 1.128 + 0.196 (1.25) + 0.333 (1.50) + 0.143 (1.50) +0.107 (1.25)**
**= 2.22075**

This could mean an attitude of dislike towards the destination.

If the same conditions are applied to any tourist, but instead of giving the minimum mean ratings, he or she gives the maximum mean ratings *(see Table 10)* for all attributes of a destination in Model 4, his or her attitude is implied as:

**attitude = 1.128 + 0.196 (7.00) + 0.333 (7.00) + 0.143 (7.00) + 0.107 (7.00)**
**= 6.581**

This implies an attitude of tremendously like.

Eq. 1 should be interpreted with caution if the mean ratings used are outside of the values in Table 10.

The strength of each independent variable, as a predictor of *tourist attitude,* varies. The independent variable with the highest absolute t value is *prices* (8.651); while *beaches* have the lowest (2.784). This means that the strongest predictor to *tourist attitude* is, therefore, *prices* and the weakest, is *beaches*.

Table 10:
Descriptive Statistics for Overall Data

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Watpow | 392 | 1.25 | 7.00 | 6.1735 | .97812 |
| Price | 392 | 1.50 | 7.00 | 6.0051 | .92024 |
| Climawe | 392 | 1.50 | 7.00 | 6.3087 | 1.03290 |
| Beach | 392 | 1.25 | 7.00 | 6.1027 | 1.03865 |
| Valid N (listwise) | 392 | | | | |

Furthermore, the histogram of residuals and the normal probability plot of residuals show that the probability distribution of the residuals is approximately normal. As per observation, the histogram is nearly a bell-shaped curve, and that, the normal probability plot is relatively close to being a straight line.

Moreover, the residual plot is relatively linear and the variances of the errors are about equal for each value of the independent variables; hence, the error terms do not appear to be related to adjacent terms. The error variance in Model 4 are, relatively constant and, henceforth, the assumption of homoscedasticity for residuals is met. (Black, 2006; Neter, Wasserman, & Kutner, 1995)

The main effects regression variates were validated using split-sample procedures. Cumulatively, the split sample results confirmed the significance of destination attributes as predictors of attitude. In particular, the destination attributes that were found to be significant predictors of attitude, among Foreign and Filipino tourists, were water and power, prices, climate and weather and beaches.

Multiple regression analysis yielded Model 3, as generated by the stepwise search procedure, is the best model for foreign tourists among the three models (Models 1, 2, and 3). From Table 11, Model 3 has the highest R Square and the highest Adjusted R Square values, being 0.800 and 0.796, respectively. The R Square value means that the about 80% of the changes in *tourist attitude,* as the dependent variable in Model 3, can be attributed to the independent variables. The small difference between the values of R Square and Adjusted R Square means that Model 3, being the best model, can be expected to have no insignificant independent variables.

Moreover, Model 3 has the smallest Standard Error of Estimate value which is 0.36919. The Durbin-Watson statistic

obtained in Table 4.5 is 2.058, which is again within the acceptable range of 1.5 to 2.5. This means that there is no significant serial correlation between the residuals.

Table 11:
Model 3 Summary

| Model | R | R Square | Adjusted R Square | Standard Error of the Estimate | Durbin-Watson |
|---|---|---|---|---|---|
| 3 | .894[c] | .800 | .796 | .36919 | 2.058 |

Table 12 shows that the Model 3 has at least one significant independent variable, as indicated by its F value of 197.274, which is highly significant at $\alpha = 0.05$. This result suggests that the variance, in the attitude of tourists explained by the Model 3, which is amounting to 80% (as indicated by the model $R^2$), is significantly higher than 0.

Table 12:
ANOVA

| Model 3 | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 80.667 | 3 | 26.889 | 197.274 | .000[c] |
| Residual | 20.173 | 148 | .136 | | |
| Total | 100.840 | 151 | | | |

Table 13 indicates that Model 3, being the best model, has only three independent variables which are highly significant at $\alpha = 0.05$. They are *prices* (p-value = 0.000), *climate and weather* (p-value = 0.000), *and transportation facilities* (p-value = 0.004). The regression variate in Model 3 is shown below:

**attitude = 1.149 + 0.317 price + 0.281 climawe + 0.170 transpo Eq. 2**

Each variable has a positive partial regression coefficient, which means that they are all positively correlated with the *tourist attitude* as the dependent variable in the regression variate. This is further confirmed by the t values which are all positive.

Table 13:
Coefficients

| Model 3 | Unstardardized Coefficients, B | T | Sig. | VIF |
|---|---|---|---|---|
| (Constant) | 1.149 | 5.121 | .000 | |
| Price | .317 | 4.686 | .000 | 5.459 |
| Climawe | .281 | 4.861 | .000 | 5.251 |
| Transpo | .170 | 2.962 | .004 | 1.792 |

However, unlike the overall model (Eq. 1), the *climate and weather* of Model 3 (t value = 4.861) has the strongest predictor of *tourist attitude* followed by *prices* (t value = 4.686). The two variables vary by only a margin of 0.175. This implies that the *price* ranks as the second strongest predictor variable; nevertheless, it is significantly important because the difference between their t values is only 3.6% of the t value of *climate and weather*. The weakest predictor of *tourist attitude* in Model 3 is *transportation facilities* (t value = 2,692).

The same with the model generated using all the tourists, the results of the regression generated among foreign tourists support the rejection of the null hypothesis, that the price, climate and weather and transportation do not significantly predict the attitude of the tourists on the entire destination.

If a foreign tourist, regardless of his or her profession, as well as, income, civil status, and gender gives the minimum mean ratings *(see Table 14)* for all attributes of destination in Model 3; his or her attitude is implied as:

**attitude = 1.149 + 0.317 (2.50) + 0.281 (1.50) + 0.170 (2.00)**
**= 2.703**

This implies an attitude of dislike towards the destination.

Table 14:
Descriptive Statistics for Foreigner Data

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Price | 152 | 2.50 | 7.00 | 5.8257 | 1.03660 |
| Climawe | 152 | 1.50 | 7.00 | 6.0049 | 1.19168 |
| Transpo | 152 | 2.00 | 6.25 | 5.1036 | .70149 |

On the other hand, if a foreign tourist, regardless of his or her profession, the income, civil status, and gender give the

maximum mean ratings in all attributes of destination in Model 3; his or her attitude is implied as:

**attitude = 1.149 + 0.317 (7.00) + 0.281 (7.00) + 0.170 (6.25) = 6.3975**

This could mean an attitude of tremendously like.

Eq. 2 should be interpreted with caution if the mean ratings used are outside of the values in Table 14. Furthermore, Table 13 also reveals that the Model 3 has no serious multicollinearity problem. This is indicated that the values of the Variable Inflation Factor (VIF) are all below 10.

The error variances in Model 3 are relatively constant, as shown by the residual plot, which is nearly linear and shows that error variances are about equal for each value of the independent variables. This means that the error terms do not appear to be related to adjacent terms, and henceforth, the assumption of regression analysis, that the residuals have significantly constant variances, is met.

Moreover, the histogram of the residuals and the normal probability plot indicates that the residuals are approximately normally distributed because the histogram closely resembles a bell-shaped curve and the residual plot is nearly a straight line.

Table 15 shows that the best model for Filipino tourists (without moderating variables) is Model 5, which has the optimum R Square and Adjusted R Square values; being 0.868 and 0.865, respectively. Moreover, Model 5 bested all the other models, Models 1 to 4, in terms of the value of the Standard Error of the Estimate which is 0.25525. The stepwise search procedure also generated a Durbin-Watson statistic value of 1.866 for Model 5. The assumption of regression analysis, that the residuals are not significantly autocorrelated, is met, because the Durbin-Watson statistic value is within the acceptable range of 1.5 to 2.5.

Table 15:
Model 5 Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|---|---|---|---|---|---|
| 5 | .932[e] | .868 | .865 | .25525 | 1.866 |

Table 16 yields Model 5 as a highly significant model (F value = 307.077; p-value = 0.000) at $\alpha = 0.05$.

Table 16:
ANOVA

| Model 5 | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 100.034 | 5 | 20.007 | 307.077 | .000[e] |
| Residual | 15.246 | 234 | .065 | | |
| Total | 115.279 | 239 | | | |

**attitude=0.576+0.261watpow+0.334price+0.115land+0.108 access Eq. 3**

The linear combination of independent variables shows that each independent variable is positive and significantly correlated with *tourist attitude*. This positive correlation confirmed the partial regression coefficients and the t values of the independent variables, which are all positive.

Furthermore, *water and power* (p-value = 0.000), *prices* (p-value = 0.000), *landscape* (p-value = 0.000), and *accessibility and cost of travel* (p-value = 0.006) are highly significant at $\alpha = 0.05$, as shown in Table 17. As observed, the strongest predictor of *tourist attitude* in Model 5 is *prices* (t value = 8.462); while *accessibility and cost of travel* (t value = 2.769) is the weakest. In all the main effect models, price as a destination attribute was found to be the strongest predictor of tourist attitude. These results rejected the null hypothesis, which suggests that water and power, prices, landscape and accessibility, and cost to travel as attributes of the attractions do not significantly predict the attitudes of the overall destination.

Table 17
Coefficients

| | | | | | | P | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | **(Constant)** | .576 | .169 | | 3.412 | **.001** | .243 | .908 | | | | |
| | **Watpow** | .261 | .048 | .307 | 5.485 | **.000** | .167 | .355 | .888 | .338 | .130 | .181 | 5.530 |
| | **Price** | .334 | .039 | .395 | 8.462 | **.000** | .256 | .412 | .878 | .484 | .201 | .260 | 3.848 |
| | **Land** | .115 | .033 | .142 | 3.544 | **.000** | .051 | .179 | .754 | .226 | .084 | .354 | 2.827 |
| | **Access** | .108 | .039 | .113 | 2.769 | **.006** | .031 | .185 | .771 | .178 | .066 | .339 | 2.950 |
| | **Transpo** | .098 | .046 | .078 | 2.148 | **.033** | .008 | .188 | .700 | .139 | .051 | .426 | 2.348 |

If a Filipino tourist, regardless of his or her profession, as well as, income, civil status, and gender; gives the minimum mean ratings in all attributes of a destination in Model 5, his or her attitude is implied as:

**attitude = 0.576 + 0.261 (1.75) + 0.334 (1.50) + 0.115 (1.25) + 0.108 (2.00)**
**= 1.8935**

This implies an attitude of dislike towards the destination.

Table 18:
Descriptive Statistics for Filipino Data

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Watpow | 240 | 1.75 | 7.00 | 6.3385 | .81547 |
| Price | 240 | 1.50 | 7.00 | 6.1187 | .82041 |
| Land | 240 | 1.25 | 7.00 | 6.0198 | .85378 |
| Access | 240 | 2.00 | 7.00 | 6.1000 | .72637 |

If the same Filipino tourist, instead of the minimum mean ratings, gives the maximum mean ratings *(see Table 18)* in all attributes of a destination in Model 5, his or her attitude is implied as:

**attitude = 0.576 + 0.261 (7.00) + 0.334 (7.00) + 0.115 (7.00) + 0.108 (7.00)**
**= 6.302**

This could mean an attitude of tremendously like

Eq. 3 should be interpreted with caution if the mean ratings used are outside of the values in Table 18. Moreover, it also indicates that there is no significant multicollinearity problem, in Model 5, because the values of the Variable Inflation Factor are all below 10.

The histogram of the residuals and the normal probability plot again indicates that the normality assumption of regression analysis for error terms is met. The residual plot, on the other hand, confirms that there is a significant homoscedasticity in the residuals. Therefore, this satisfies that the assumptions of regression analysis or error variances are constant.

The succeeding results pertain to the moderating effects analysis involving both the foreign and Filipino tourists.

Table 19 shows that the R Square Change of 0.002 and F Change of 4.502 are both significant (p-value = 0.035) at $\alpha = 0.05$ (Hair, Anderson, Tatham, & Black, 1995; Black, 2006; Berenson, Levine, & Krehbiel, 2009). Furthermore, Model 14 has the highest R Square and Adjusted R Square values, being 0.849 and 0.844, respectively; it has also the least Standard of Estimate value which is 0.31329.

Furthermore, Table 19 also shows that there is no significant serial correlation of error terms, as indicated by the Durbin-Watson statistic value of 1.678, which is again within the acceptable level of 1.5 to 2.5. The assumption of regression analysis, that the residuals are independent, is significantly satisfied.

Table 19:
Model Summary

| Model | R | R Square | Adjusted R square | Standard Error of the Estimate | Change Statistics | | | | | Durbin-Watson |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df 1 | df 2 | Sig. Change | |
| 14 | .921[n] | .849 | .844 | .31329 | .002 | 4.502 | 1 | 379 | .035 | 1.678 |

The result of ANOVA, as given in Table 20, shows that Model 14, with F value equals 177.377, is highly significant at $\alpha = 0.05$. This implies that the amount of variance in attitude of tourists, as explained by the model, is significantly greater than 0.

Table 20:
ANOVA

| Model 14 | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 208.911 | 12 | 17.409 | 177.377 | .000[n] |
| Residual | 37.198 | 379 | .098 | | |
| **Total** | **246.109** | **391** | | | |

Table 21 shows the statistically significant regression coefficients of the independent variables, some of which represent the moderating (or interaction) effects (Hair, Anderson, Tatham, & Black, 1995; Black, 2006; Berenson, Levine, & Krehbiel, 2009) of *profession*, *income*, *civil status*, *gender*, and *nationality* as proposed in the conceptual framework. The regression variate is shown below:

**attitude = - 0.028 + 0.136 dwatpow + 0.206 dprice + 0.230 dclimawe**
**+ 0.198dbeach – 0.209dwatpow_dmgr +0.533dprice_dinc40**
**+ 0.118 dprice_dcstatus + 0.510 dprice_dinc15**
**Eq. 4 + 0.115 dprice_dgender – 0.163 dprice_dnation**
**– 0.529 dbeach_dinc40 + 0.292 dbeach_dnation**

As observed, all the independent variables begin with the letter "d" which means that their values were centered, and thereafter, included in the stepwise search procedure of multiple regression analysis with moderating (or interaction) effects. The centering procedure was implemented because it reduces the occurrence of multicollinearity problems in multiple regression analysis with moderating (or interaction) effects. Centering means subtracting the mean from the value of a variable, leaving deviation scores. There are advantages to be gained from centering independent variables. It can make, otherwise, uninterpretable regression coefficients, and the other, is it reduces multicollinearity among predictor variables (Aiken & West, 1991).

Table 21:
Coefficients

| Model 14 | Unstardardized Coefficients, B | t | P-value | VIF |
|---|---|---|---|---|
| (Constant) | -.028 | -1.591 | .112 | |
| Dwatpow | .136 | 2.977 | .003 | 7.914 |
| Dprice | .206 | 5.163 | .000 | 5.347 |
| Dclimawe | .230 | 4.913 | .000 | 9.287 |
| dprice_dinc40 | .533 | 5.780 | .000 | 1.799 |
| dbeach_dinc40 | -.529 | -5.384 | .000 | 1.602 |
| dwatpow_dmgr | -.209 | -3.400 | .001 | 1.105 |
| Dbeach | .198 | 5.001 | .000 | 6.744 |
| dprice_dcstatus | .118 | 3.015 | .003 | 1.316 |
| dprice_dinc15 | .510 | 3.978 | .000 | 1.219 |
| dprice_dgender | .115 | 2.524 | .012 | 1.688 |
| dbeach_dnation | .292 | 4.443 | .000 | 4.660 |
| dprice_dnation | -.163 | -2.122 | .035 | 5.112 |

Modeling with moderating (or interaction) effects usually involves more independent variables in the analysis than in modeling without moderating (or interaction) effects. The regression variate in Eq. 4 indicates the following:

1. The moderating (or interaction) effects of *profession, income, civil status, gender,* and *nationality* to the relationship of *water and power supply, prices, climate and weather,* and *beaches* to *tourist attitude* are highly significant at $\alpha = 0.05$.
2. The magnitude of the effect of *water and power supply* on *tourist attitude* varies negatively as a function of the moderating variable *profession* (for manager only).
3. The magnitude of the effect of *prices* on *tourist attitude* varies positively as a function of *income* (for income level PHP 40,001 to PHP 50,000 only).

4. The magnitude of the effect of *prices* on *tourist attitude* varies positively as a function of *civil status* (for married only).
5. The magnitude of the effect of *prices* on *tourist attitude* varies positively as a function of *income* (for income level PHP 15,001 to PHP 25,000 only).
6. The magnitude of the effect of *prices* on *tourist attitude* varies positively as a function of *gender* (for male only).
7. The magnitude of the effect of *prices* on *tourist attitude* varies negatively as a function of *nationality* (for Filipino only).

Furthermore, the results support the rejection of the null hypothesis that the profession, income, civil status, gender, and nationality of the tourists do not moderate the relationship of the attraction attributes and their overall island destination attitude.

Furthermore, the regression variate in Eq. 4 implies that the attitude towards a destination of a tourist, who is a manager by profession, has an income level of PHP 40,001 to PHP 50,000, married, male, Filipino, and who gives the minimum mean ratings for all attributes of a destination in Model 14 will be:

**attitude = - 0.028 + 0.136 (1.25) + 0.206 (1.50) + 0.230 (1.50) + 0.198 (1.25) – 0.209 (1) + 0.533 (1) + 0.118 (1) + 0.510 (0) + 0.115 (1) – 0.163 (1) – 0.529 (1) + 0.292 (1)**
**= 1.2005**

This implies an attitude of tremendously dislike.

The variate in Eq. 4 also implies that the same tourist who gives the maximum mean ratings in all attributes of a destination in Model 14 will be:

**attitude = - 0.028 + 0.136 (7.00) + 0.206 (7.00) + 0.230 (7.00) + 0.198 (7.00) – 0.209 (1) + 0.533 (1) + 0.118 (1) + 0.510 (0) + 0.115 (1) – 0.163 (1) – 0.529 (1) + 0.292 (1)**
**= 5.519**

This implies an attitude of like towards the destination.

If a tourist has the same characteristics as mentioned in the foregoing discussions, except that he or she has an income level of Php 15,001 to Php 25,000, and who gives the minimum mean ratings in all attributes of a destination, his or her attitude is implied as:

**attitude = - 0.028 + 0.136 (1.25) + 0.206 (1.50) + 0.230 (1.50) + 0.198 (1.25) – 0.209 (1) + 0.533 (0) + 0.118 (1) + 0.510 (1) + 0.115 (1) – 0.163 (1) – 0.529 (0) + 0.292 (1)**
**= 1.7065**

If a tourist has the same characteristics but gives the maximum mean ratings in all attributes of a destination, his or her attitude is implied as:

**attitude = - 0.028 + 0.136 (7.00) + 0.206 (7.00) + 0.230 (7.00) + 0.198 (7.00) – 0.209 (1) + 0.533 (0) + 0.118 (1) + 0.510 (1) + 0.115 (1) – 0.163 (1) – 0.529 (0) + 0.292 (1)**
**= 6.025**

If a tourist does not possess any of the characteristics, cited in the preceding discussions, and he or she gives the minimum mean ratings in all attributes of a destination, his or her attitude is implied as:

**attitude = - 0.028 + 0.136 (1.25) + 0.206 (1.50) + 0.230 (1.50) + 0.198 (1.25) – 0.209 (0) + 0.533 (0) + 0.118 (0) + 0.510 (0) + 0.115 (0) – 0.163 (0) – 0.529 (0) + 0.292 (0)**
**= 1.0435**

If the same tourist gives the maximum mean ratings, instead of the minimum mean ratings in all attributes of a destination, his or her attitude would be:

**attitude = - 0.028 + 0.136 (7.00) + 0.206 (7.00) + 0.230 (7.00) + 0.198 (7.00) – 0.209 (0) + 0.533 (0) + 0.118 (0) + 0.510 (0) + 0.115 (0) – 0.163 (0) – 0.529 (0) + 0.292 (0)**
**= 5.362**

The moderated regression variates were also validated using split-sample procedures. Cumulatively, the split sample results confirmed the significance of the moderators namely: income, gender, occupation/profession and nationality. In particular, the variables moderated the relationships between water and power, prices, climate and weather and beaches to tourist attitude on various split samples generated.

Table 22 shows that Model 3 is the best attitude model with moderating variables for foreign tourists, among all the models generated by multiple regression analysis, with interactions through the stepwise search procedure. The R Square Change of 0.012 and F Change of 8.776 are both significant (p-value = 0.004) at $\alpha = 0.05$. Furthermore, Model 3 has the highest R Square and Adjusted R Square values, being 0.800 and 0.796, respectively. It has also the least Standard of Estimate value which is 0.36919. These all confirm that Model 3, as a predictive model for *tourist attitude*, is the best model, among the three models generated by regression analysis, where the moderating variables are included in the search

procedure. However, it should be noted that the Model 3 does not contain any significant moderating variable.

Furthermore, Table 22 also shows that there is no significant serial correlation of error terms, as indicated by the Durbin-Watson statistic value of 2.056, which is again within the acceptable level of 1.5 to 2.5. The assumption of regression analysis, that the residuals are independent, is significantly satisfied.

Table 22:
Model Summary

| **Model** | **R** | **R Square** | **Adjusted R square** | **Standard Error of the Estimate** | **Change Statistics** | | | | | **Durbin-Watson** |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df 1 | df 2 | Sig. Change | |
| 3 | .894 | .800 | .796 | .36919 | .012 | 8.776 | 1 | 148 | .004 | 2.058 |

The result of ANOVA, as given in Table 23, shows that Model 3, with an F value equals 197.274, is highly significant at $\alpha = 0.05$. As with the previous models, Model 3 has a significant amount of variance in the attitude of the foreign tourists.

Table 23:
ANOVA

| **Model 3** | **Sum of Squares** | **df** | **Mean Square** | **F** | **Sig.** |
|---|---|---|---|---|---|
| Regression | 80.667 | 3 | 26.889 | 197.274 | .000 |
| Residual | 20.173 | 148 | .136 | | |
| **Total** | **100.840** | **151** | | | |

Table 24 shows the statistically significant regression coefficients of the independent variables. As observed, there are no moderating variables, as proposed in the conceptual framework included in the stepwise search procedure of regression analysis. Table 24 further indicates that Model 3, being the best model, has only three independent variables which are highly significant at $\alpha = 0.05$. They are *prices* (p-value = 0.000), *climate and weather* (p-value = 0.000), *and transportation facilities* (p-value = 0.004). The model is very similar to Eq. 2 because of the absence of moderating variables. Only the value of the regression constant differs, i.e.,

1.149 as shown in the previous result, and 0.132 as shown in Table 24. The rejection of the null hypothesis, which indicates the insignificance of the moderating effects of the demographics to the relationship of attraction attributes and destination attributes, is not supported by the results derived from foreign tourists.

Table 24:
Coefficients

| Model 3 | Unstardardized Coefficients, B | t | Sig. | VIF |
|---|---|---|---|---|
| (Constant) | .132 | 4.072 | .000 | |
| Dprice | .317 | 4.686 | .000 | 5.459 |
| Dclimawe | .281 | 4.861 | .000 | 5.251 |
| Dtranspo | .170 | 2.962 | .004 | 1.792 |

The regression variate, as indicated by Table 24 is shown below:

**attitude = 0.132 + 0.317 dprice + 0.281 dclimawe + 0.171 dtranspo Eq. 5**

Each variable has a positive partial regression coefficient, which means that they are all positively correlated with the *tourist attitude* as the dependent variable in the regression variate. As observed in the Table, the t values are all positive; same as in Eq. 2, Eq. 5 where the *climate and weather* have the t value = 4.861, as the strongest predictor of *tourist attitude* followed by *prices* (t value = 4.686). The two variables vary by only a margin of 0.175; this implies that *price* ranks second as the strongest predictor variable. Nevertheless, it is significantly important because the difference between their t values is only 3.6% of the t value of *climate and weather*. The weakest predictor of *tourist attitude* in Model 3 is *transportation facilites* (t value = 2.692).

If a foreign tourist, regardless of his or her profession, as well as, income, civil status, and gender gives the minimum mean ratings in all attributes of a destination in Model 3, his or her attitude is implied as:

**attitude = 0.132 + 0.317 (2.50) + 0.281 (1.50) + 0.170 (2.00) = 1.686**

An attitude of “dislike” towards the destination.

On the other hand, if a foreign tourist, regardless of his or her profession, as well as, income, civil status, and gender, gives the maximum mean ratings in all attributes of a destination in Model 3, his or her attitude is implied as:

**attitude = 0.132 + 0.317 (7.00) + 0.281 (7.00) + 0.170 (6.25) = 5.3805**

An attitude of "like" towards the destination.

Eq. 5 should be interpreted with caution if the mean ratings used are outside of the standard values. Furthermore, it also reveals that Model 3 has no serious multicollinearity problem – as indicated in by the fact that the values of the Variable Inflation Factor (VIF) which are all below 10.

The error variances, in Model 3, are relatively constant as shown by the residual plot, which is nearly linear. The error variances have an equal value to the independent variables; this means that the error terms do not appear to be related to adjacent terms, and henceforth, the assumption of regression analysis, that the residuals have significantly constant variances, is met.

Moreover, the histogram of the residuals and the normal probability plot indicates that the residuals are approximately normally distributed because the histogram closely resembles a bell-shaped curve and the residual plot is nearly of a straight line.

Table 25 shows that among the models generated by multiple regression analysis with interactions through the stepwise search procedure, Model 7 is the best attitude model with moderating variables for Filipino tourists. The R Square Change of 0.008 and F Change of 15.824 are both highly significant (p-value = 0.000) at $\alpha = 0.05$. Furthermore, Model 7 has the highest R Square and Adjusted R Square values, being 0.888 and 0.885, respectively. It has also the least Standard of the Estimate value which is 0.23561. These all confirm that Model 7, as a predictive model for *tourist attitude*, is the best model with some of the moderating variables.

Furthermore, Table 25 also shows that there is no significant serial correlation of error terms, as indicated by the Durbin-Watson statistic value of 1.707, which is again within the acceptable level of 1.5 to 2.5. The assumption of regression analysis, that the residuals are independent, is significantly satisfied.

Table 25:
Model Summary

| Model | R | R Square | Adjusted R square | Standard Error of the Estimate | Change Statistics | | | | | Durbin-Watson |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df 1 | df 2 | Sig. Change | |
| 7 | .942[g] | .888 | .885 | .23561 | .008 | 15.824 | 1 | 232 | .000 | 1.707 |

The result of ANOVA, as given by Table 26, shows that Model 7, with F value equals 263.533, is highly significant (p-value = 0.000) at $\alpha = 0.05$.

Table 26:
ANOVA

| Model 7 | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 102.401 | 7 | 14.629 | 263.533 | .000[g] |
| Residual | 12.878 | 232 | .056 | | |
| **Total** | **115.279** | **239** | | | |

Table 27 shows the significant regression coefficients of the independent variables, some of which represent the significant moderating (or interaction) effects of *educational attainment* and *income.* The null hypothesis, suggesting that the moderating effects of educational attainment and income of the tourists to the relationship of attraction attributes and destination attributes, is not significant, and also, rejected among Filipino tourists.

Table 27:
Coefficients

| Model 7 | Unstardardized Coefficients, B | t | Sig. | VIF |
|---|---|---|---|---|
| (Constant) | .003 | .223 | .824 | |
| Dwatpow | .254 | 5.532 | .000 | 6.043 |
| Dprice | .246 | 6.065 | .000 | 4.764 |
| Dland | .201 | 6.830 | .000 | 2.717 |
| dprice_dcollu | -.149 | -2.519 | .012 | 1.196 |
| dland_dinc40 | -.294 | -4.907 | .000 | 1.325 |
| Daccess | .166 | 4.215 | .000 | 3.540 |
| dprice_dinc40 | .275 | 3.978 | .000 | 1.542 |

The regression variate, as is shown below:

**attitude = 0.003 + 0.254 dwatpow + 0.246 dprice + 0.201 dland + 0.166 daccess – 0.149 dprice_dcollu**
**Eq. 6 + 0.275 dprice_dinc40 – 0.294 dland_dinc40**

The regression variate, in Eq. 6 indicates the following:

1. The moderating (or interaction) effects of *educational attainment* and *income* to the relationship of *water and power supply*, *prices*, *landscape*, and *accessibility* to *tourist attitude* are highly significant at $\alpha = 0.05$.
2. The magnitude of the effect of *prices* on *tourist attitude* varies negatively as a function of the moderating variable *educational attainment* (for college undergraduate only).
3. The magnitude of the effect of *prices* on *tourist attitude* varies positively as a function of *income* (for income level Php 40,001 to Php 50,000 only).
4. The magnitude of the effect of landscape on *tourist attitude* varies negatively as a function of *income* (for income level Php 40,001 to Php 50,000 only).

Furthermore, the regression variate in Eq. 6 implies that the attitude towards a destination of a Filipino tourist, who is a college graduate and has an income level of Php 40,001 to Php 50,000, gives the minimum mean ratings in all attributes of a destination in Model 7 will be:

**attitude = 0.003 + 0.254 (1.75) + 0.246 (1.50) + 0.201 (1.25) + 0.166 (2.00) – 0.149 (1) + 0.275 (1) – 0.294 (1) = 1.23175**

This could mean that his attitude is on "tremendously dislike."

The variate in Eq. 6 also implies that the same Filipino tourist who gives the maximum mean ratings for all attributes of a destination in Model 7 will be:

**attitude = 0.003 + 0.254 (7.00) + 0.246 (7.00) + 0.201 (7.00) + 0.166 (7.00) – 0.149 (1) + 0.275 (1) – 0.294 (1) = 5.904**

This could mean that his attitude is on "tremendously like."

If a tourist does not possess any of the characteristics cited in the preceding discussions, he or she gives the minimum mean ratings in all attributes of a destination; his or her attitude is implied as:

**attitude = 0.003 + 0.254 (1.75) + 0.246 (1.50) + 0.201 (1.25) + 0.166 (2.00) – 0.149 (0) + 0.275 (0) – 0.294 (0) = 1.39975**

If the same tourist gives the maximum mean ratings, instead of the minimum mean ratings for, in attributes of a destination, his or her attitude would be:

**attitude = 0.003 + 0.254 (7.00) + 0.246 (7.00) + 0.201 (7.00) + 0.166 (7.00) – 0.149 (0) + 0.275 (0) – 0.294 (0) = 5.242**

Eq. 6 should be interpreted with caution if the mean ratings used are outside of the standard values. Furthermore, it also reveals that Model 7 has no serious multicollinearity problem; meaning, the values of the Variable Inflation Factor (VIF) are all below 10.

Again, the plot is nearly linear that shows the error variances have equal value to the independent variables. This means that the error terms do not appear to be related to adjacent terms, and henceforth, the assumption of regression analysis that the residuals have significantly constant variances is met.

Moreover, the histogram of the residuals and the normal probability plot indicates that the residuals are approximately normally distributed because the histogram closely resembles a bell-shaped curve and the residual plot is nearly of a straight line.

The attitudes of foreign and Filipino tourists were compared using t-test for independent samples (see Table 28). This was conducted to determine if locals and foreigners have significantly different attitudes despite having experienced the same destination. The results revealed that there is a significant difference on the overall attitudes toward the island destination ($t=-7.36$, $p<.05$). In particular, the local tourists with ($M=6.33$, $SD=.18$) have expressed a more positive attitude compared to their foreign ($M=6.04$, $SD=.16$) counterparts.

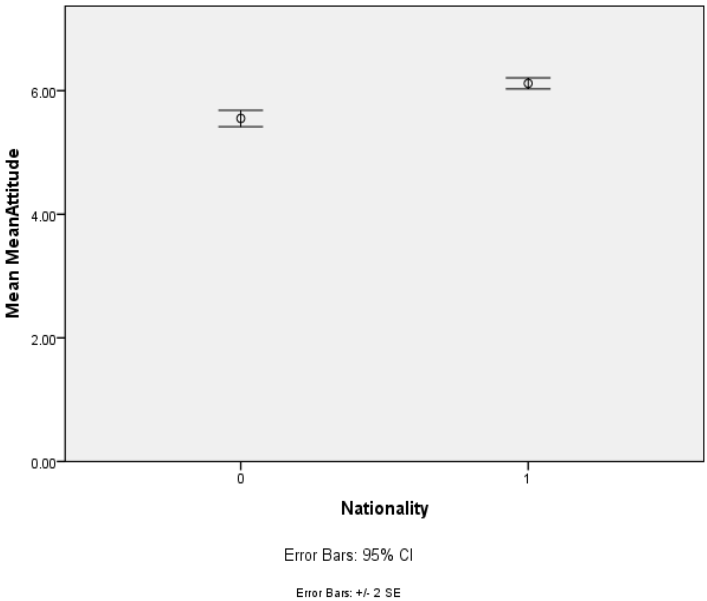
The result confirmed the preceding results using a multiple stepwise regression, that the set of destination attributes, which predicted the attitudes of the foreign tourists, were different from the one that predicted the Filipino tourist attitudes.

Table 28:
Comparison of attitudes of foreign and Filipino tourists

| | **F** | **p** | **T** | **Df** | **p** |
|---|---|---|---|---|---|
| Equal variances assumed | 18.571 | .000 | -7.356 | 390 | .000 |
| Equal variances not assumed | | | -7.094 | 283.29 | .000 |

**GGraph**

The g-graph shows the position of the means of the two independent groups (foreign and Filipino tourists) on the mean attitude axis. This is a graphical presentation of the difference between the means of the groups being compared.




**Conclusion and Recommendations**

Based on the results of the regression analyses, the destination attributes can significantly predict tourists' attitude as confirmed in the present study. It should be noted that the different destination attributes predict the attitudes of foreign and Filipino tourists.

In particular, higher ratings on the destination attributes of IGaCoS particularly in terms of its water and power, accessibility and cost to travel, prices, landscape and transportation facilities, resulted to a more positive destination attitudes among the Filipino tourists. On the other hand, a higher attribute rating in terms of climate and weather, prices and transportation facilities, resulted to a more positive destination attitudes among foreign tourists. The attitudes of tourists toward the destination are influenced by the quality of the attributes of the island, particularly in terms of water and power supply, prices of goods and services related to their stay

in the island, climate and weather and the features of the beaches.

Certain demographic variables also moderated the relation of destination attributes and tourists' attitude. But the moderating effects on the demographics, among the Filipino tourists were found significant when the overall data were analyzed. In particular, Filipino tourists' perception on goods and services has a positive attitude toward the destination, particularly, among the undergraduates whose monthly income of between Php 40,001 to Php 50,000. On the other hand, tourists' appreciation of the natural landscapes within the island tends to elicit negative attitudes toward the destination, particularly those who receive a monthly income of Php 40,001 to Php 50,000.

The recommendations drawn based on the finding and conclusions.

*Policy or program-related*

1. The local government of IGaCoS, the Tourism Council, and the resort and other tourist spots owners in the island may give priority in the development plans of the destination strategies for: (a) further improving the water and power supply; (b) adjusting the prices of goods and services; and (c) building facilities that make the beaches more attractive to both local and foreign tourists considering that these are the destination-specific attributes that predicted the attitude of tourists that visit the island. The local government may install a water system that could provide potable water to its constituency considering that the current water supply is independently sourced out by majority of the establishments and households. The electricity supply within the island should also be stabilized considering current supply fluctuates from time to time.
2. Development initiatives that bridge access and travel cost issues may also be considered by the local government since these factors significantly influence the overall experience of tourists. This is especially true among those who come from the locality of Davao. One initiative that the government may consider is to improve the road conditions within the island. Improving the road conditions could attract businessmen to invest on public transportation. This in turn could significantly lower current transportation costs asked by motorcycle operators who are the ones being tapped by tourists who travel

within the island. Moreover, the presence of other modes of public transportation (e.g., jeepneys) may also offer better safety and comfort for the tourists that may wish to travel in order to visit the different attractions in the island.

3. Terrains going to natural landscapes and vistas (e.g., Hagimit Falls and various caves) within the island may also be improved by the local government. This could provide better access even to those tourists who may opt to have a shorter stay within the destination. This is supported by the results indicating the significance of landscapes and accessibility as significant predictors of tourists' attitudes.
4. Owners and proprietors may consider configuring the features of the resorts and other attractions in the island to equally cater to the needs of foreign tourists. This is to bridge the gap in the attitude towards the island between the Filipino and foreign tourists.

*Research-related*

1. Market segmentation studies may also be carried to provide the local government and resort owners a profile of the tourists that visit their establishments. With this, tourism programs and resort policies related to pricing, access and safety may be identified to address the needs of a specific market segment.
2. Causal models involving the demographic variables that were found to have significant moderating effects in the present study could be tested using appropriate design and statistical tools (e.g., structural equation modeling). This could further enrich the evidence on the causality of the variables involved in the study. By testing causal models, the indirect effects of the demographic variables could be specifically tested.
3. The present research instrument was validated using the content validity approach. Future research studies may consider subjecting the present data gathering instrument to factor analysis to enhance its validity by empirically determining the constructs it measures.
4. Mix-method research approaches may also be employed to mitigate possible drawbacks in conducting quantitative studies. Future studies may integrate interviews or focus groups to probe the authenticity of the destination attributes that predict tourists attitudes for both the foreign and Filipino samples.

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