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Choice, Expenditure and Satisfaction of International Tourists to Kenya: A Structural Equation Modelling Approach

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Abstract: *Consumer satisfaction is an essential concept in customer relationship management in all types of (tourist) organizations. This paper investigates the determinants of tourists' satisfaction in Kenya and their significance in tourism policy formulation. Data was collected for a total of 1,566 respondents in 2003-2004 by interviewing departing international tourists who had just concluded their holidays in Kenya. Satisfaction was analyzed by considering the valuation of attractions visited, concerns after experiencing the tourism commodity at the destination, and the assessment of quality and value for money. A LISREL model was estimated due to the presence of latent variables. The main findings of the study are that tourist expectations concerning attractions and their perception of quality and value determine satisfaction more than personal and trip attributes.*

Keywords: *Tourism, Satisfaction, Attractions, Kenya, LISREL*

1. INTRODUCTION

Kenya lies along the East Coast of Africa covering an area of 586,350 square kilometres with an estimated population of 30 million people. The economy of the country is predominantly dependent on agriculture and the policy is now to establish and expand the industrial base and service sector. The country aims at joining the Newly Industrialized Nations (NIC) status by the year 2020. In the Service sector, Tourism is currently the second largest contributor to the economy after agriculture. According to World Travel and Tourism Council (WTTC) estimates, tourism in Kenya contributes 8% to GDP, provides employment for 470,000 people or 1 in every 15 jobs and generated 20% of total exports in 2001.

Despite increased competition from other destinations, Kenya is still one of the foremost tourist destinations in Africa. Tourism in Kenya is mainly based on natural attractions that include wildlife in its natural habitats as well as beaches. Approximately 10% of the country is utilized for conservation of wildlife and bio-diversity. Game viewing is popular since most visitors to Kenya are predominantly interested in seeing "the big five" (the Elephant, Rhino, Lion, Buffalo, and the Leopard) and other smaller and unique game. Safari is a popular product that has enabled the country to continue attracting a growing number of visitors.

In the 1960's the goal of the Kenyan government was to encourage specialized groups from the upper segment of the market to visit the country for big game hunting expeditions and beach tourism. Given the potential significance of the tourism sector, the Government formulated Sessional Paper No.8 of 1969 on the Development of Tourism in Kenya that defined the growth targets. The number of tourists visiting the country was to be increased by offering experiences that made tourists satisfied and made them to rate the destination highly. The document also outlined the areas where the Government planned to participate jointly with the private investors in developing the tourist industry in order to enhance the quality of tourism product on offer and its value for money.

The focus was shifted in the 1970's to target the middle income segment of the market to visit coastal resorts which today account for over 60% of visitors to Kenya. Tourists took advantage of the inclusive package tour arrangements to visit the country in large numbers giving rise to mass tourism in Kenya. This resulted in over-concentration of tourist activities in some parts of the country, notably along the coast and in some National Parks and Game Reserves. Currently, the goal is to encourage up-market tourists due to their spending levels and patterns, and the tendency to utilize less inclusive travel packages. Inclusive travel packages, as noted in several government publications, determine

leakage of tourism revenue from the economy. Package travellers usually put great emphasis on quality and value of their experience at a given destination.

The main objective of this research is to identify the determinants of tourist satisfaction. Knowledge of the satisfaction process is expected to help in policy formulation and implementation. In order to influence the satisfaction of consumers, the antecedents of satisfaction need to be established accordingly. Section 2 of the paper presents theoretical discourses, considerations and variables adopted for the analysis while section 3 presents the applied satisfaction model based on structural equation modelling. Empirical results are given in section 5. Subsequently, Section 6 presents the conclusion and summary of the paper.

2. THEORETICAL CONSIDERATIONS

Satisfaction reflects the degree to which an experience evokes positive feelings (Rust & Oliver, 1994). It is an overall response due to the use of a product or service (Oliver, 1981). Hunt (1977) describes it as "an evaluation of an emotion" that reflects the degree to which a customer believes that the possession and/or use of a service evokes positive feelings (Fornell, 1992). Satisfaction involves a comparison between expectations and experience. According to Bultena & Klessig (1969: 349), a satisfaction experience "is a function of the degree of congruency between aspirations and the perceived reality of experiences". From a cognitive outlook, Hunt (1983: 459) states that "satisfaction is not the pleasurableness of the experience, it is the evaluation rendered that the experience was at least as good as it was supposed to be".

In the context of tourism, satisfaction is a consequence of the entire experience of a holiday including all its components of attractions, accommodation and transport. Overall satisfaction is considered to be the result of gaps between expectations and perception/experience of the entire holiday (Oliver, 1996). The process resulting in satisfaction is based on expectation, perception (experience) and disconfirmation. Most researches on tourism satisfaction have used this paradigm. This paradigm is a contrast approach in which satisfaction is a function of an initial standard or reference point and some discrepancy from the initial reference point (Williams, 1989).

The contribution of expectations and disconfirmation to satisfaction judgement can be described by two main models (Oliver, 1996). These are the *perceived performance hypothesis* and the *disconfirmation of expectations hypothesis*. Under the first model, it is assumed that expectations more than the discrepancy between expectations and actual experiences determine satisfaction. According to the second model, disconfirmation (discrepancy between expectations and actual experiences) has greater impact on satisfaction than expectations. With respect to this model, contrast effects are predicted under which outcomes are contrasted to expectations. A meta-analysis of customer satisfaction research shows that expectation disconfirmation is the best predictor of satisfaction (Szymanski & Henard, 2001). For our approach, tourists have expectations of the services and commodities designed to satisfy their needs. Expectations may not be met (negative disconfirmation), may be exceeded (positive disconfirmation), or may be matched (zero disconfirmation) through the consumption of services. Disconfirmation of expectations determines the level of satisfaction (Swan & Trawick, 1981).

Disconfirmation is traditionally derived from differences between two separate scales, one rating expectation and the other rating perceived experience. In order to avoid the effects of time-lag, the difference between expectations and perception is measured directly. In this case, one single question concerning subjective disconfirmation is applied (Oliver, 1980, Swan & Trawick, 1981; Churchill & Surprenant, 1982; Bearden & Teel, 1983; Oliver & Bearden, 1985; Cadotte et. al., 1987; Oliver & Desarbo, 1988; Tse & Wilton, 1988). The results of these studies show that direct subjective disconfirmation has greater correlation with satisfaction than indirect approaches that use the calculation of differences.

3. SURVEY

International tourists leaving Kenya by air mainly depart from Jomo Kenyatta international airport (JKIA) in Nairobi or Moi international airport in Mombasa. The survey was conducted at the two airports. Both chartered and unchartered flights were targeted in order to capture a wide variety of tour-packages adopted by tourists for travel. Only tourists visiting for holiday purposes were sampled for the survey as they departed the country. Data was collected from international tourists who visited

Kenya between April 2002 and March 2003 the following year. The sampling design defining the target population and the sampling plan was put in place in order to obtain a sample that could provide consistent and reliable information on the population under study.

The universe of respondents consisted entirely of international tourists visiting Kenya for holiday purposes. This study concentrated on this segment of visitors that forms over 78% of departures. A daily survey period of three weeks in each quarter of the year was adopted to generate a random sample. All departing aircrafts were sampled by interviewing every fifth tourist in the queue (at the immigration section). The unit for the collection and presentation of the tourism statistics was the individual *tourist*. With regard to expenditure statistics, the leader of the travel party was interviewed in addition to the respondent in order to assist in apportioning expenses incurred commonly by the group.

An exogenously stratified random sample was used as sampling strategy. The tourist population was stratified by tourism seasons of November to January, February to April, March to July and April to October. Given that arrivals are almost evenly distributed throughout the year, relatively similar numbers of questionnaires were administered in each quarter. In the case of scheduled flights, departure schedules were used to cover all possible routes emanating out of Kenya during the research period. Every fifth person in the queue at the passport section was approached. One thousand five hundred and sixty six tourists were interviewed. The response rate was about 90 per cent of the planned questionnaires.

4. MEASURES AND HYPOTHESES

For this study, satisfaction was considered as a latent variable indicated through ranking of holidays in terms of cost (RANKING) and experience (EXPERIEN), and listing the current destination among favourite alternatives in order of preference (FAVORITE). Several variables were considered as co-determinants of satisfaction, either directly or indirectly through disconfirmation. Concerns arising during holidays (POST-CONCERNS) and importance of attractions as motivation for travel (ATTRACT) were considered direct determinants while quality (QUALITY) and value (VALUE) were considered indirect ones operating via disconfirmation.

4.1. Quality

Product quality is significant in determining satisfaction (Baker et. al. 2002; Petrick, 2002; Zeithaml, 1988). Attributes involved in quality assessment were the various aspects of accommodation, transport, meals, tour-guidance, shopping facilities, quality of attractions, etc. Direct questions concerning the disconfirmation of quality expectations were asked concerning each attribute.

4.2. Value

Value for money is a direct antecedent of satisfaction (Cronin et. al. 2000; Oh, 1999; Tam, 2000; Spreng et. al., 1993; Chang & Wildt, 1994; Jayanti & Ghosh, 1996; Zeithaml, 1988). High levels of perceived value generally result in higher levels of customer satisfaction (Bojanic, 1996). With regard to the value for money of facilities and attractions, unrealistic expectations may exist, thus affecting satisfaction negatively. Value for money was measured by single questions regarding disconfirmation of expectations concerning the attributes (cf. Appendix, Question 2). Ratings of disconfirmation were considered as indicators of overall value for money in our model. Quality and value for money have positive influence on satisfaction (Oliver 1980, 1993; Halstead et. al., 1994; Oliver and DeSarbo, 1988;, Montfort et. al. 2000; and Tse and Wilson, 1988). However, some studies did not conclusively find a positive relationship (Westbrook, 1981, Bearden and Teel, 1983; Oliver and Bearden, 1983, and Swan and Oliver, 1991).

4.3. Attraction Importance

Motivation for travel as indicated by attractions' importance is a central concept in understanding satisfaction and generally tourism behaviour (Ross & Iso-Ahola, 1991). The success of a destination's image is dependent on its attractiveness that is largely dependent on its physical attributes. The image of a destination is an important element in its selection. There are a number of elements that can contribute and enhance the general attractiveness of a destination. These include

pleasant climate, friendly people, low cost of living and the ease of accessibility (Mill and Morrison, 2002).

Physical attractions at a destination include natural and man-made attractions. Natural attractions encompass the wildlife (fauna and flora), scenery such as the rift valley and mountains, beaches along the coast of the country with the Indian Ocean and around inland lakes such as Lake Victoria. Man-made attractions are basically in the realm of cultural tourism where heritage, way of life and traditions are the main items. High ratings of attractions by visitors are likely to influence satisfaction positively. Hence, ranking of the importance of attractions in making the decision to visit Kenya was used to elicit satisfaction. That is, importance ratings of attractions with respect to weather, culture, wildlife, scenery, beaches, sports and other issues were considered as determinants of satisfaction.

4.4. Post-Concerns

Concerns about a destination can have further impact on satisfaction. Concerns can be considered as worries associated with certain destinations and are likely to influence satisfaction negatively. The effect of post-concerns on satisfaction is likely to be profound since they are discovered and experienced. The level of post-concerns was measured with regard to a number of issues, including crime, health, political instability, racial conflicts, poverty, people's hospitality, accommodation standards, shopping facilities, quality of attractions, banking services, transportation and commuting, and others. Concerns regarding these issues were considered as indicators of overall perceived experience in our model. Post concerns have been found to have a direct negative effect on satisfaction (Rust and Oliver, 1994).

4.5. Personal Characteristics

Iso-Ahola (1982) identified other variables that influence tourist satisfaction including age, gender, income, and knowledge of travel resources. Some studies have found tourist and trip characteristics to be significant in influencing satisfaction (Mason & Himes, 1973; Pickle & Bruce, 1972; and Westbrook & Newman, 1978). Satisfaction is expected to decrease with age (ξ_5). Young travellers are more likely to have high a priori expectations. With increasing age, individuals learn how to cope with situations under different circumstances (Pickle and Bruce, 1972; Campbell, 1976). Hence, older travellers are likely to place more realistic expectations on their holidays due to their experience in travelling.

Satisfaction is likely to increase with socio-economic status (ξ_9) due to more realistic expectations based on the knowledge and experience as to what is achievable in given situations (Pickle & Bruce, 1972). Lower socio-economic status may lead to too high expectations which are likely to be disconfirmed, thus inducing dissatisfaction.

Higher income individuals are expected to be experienced travellers who would put lower a priori expectations on holiday experiences. Therefore, income (ξ_8) will be related positively to satisfaction (Mason and Himes, 1973; Veenhoven, 1994).

Gender (ξ_7) is likely to influence satisfaction because female tourists have more realistic expectations given the task-oriented attitude to holidays (Ryan, 1998). Generally, females report more satisfaction with social contacts (Veenhoven, 1994) because they have better social skills.

Some studies failed to find significant relationships between age (Mason & Himes, 1973) or education (Gronhaug, 1977) and satisfaction. Satisfaction was found to increase with age (Pickle & Bruce, 1972) and personal competence (Westbrook & Newman, 1978). Satisfaction was also observed to decrease with education (Pickle & Bruce, 1972; Veenhoven, 1994) and total family income (Mason & Himes, 1973).

4.6. Trip Attributes

Group size (ξ_{10}) is expected to be positively associated with satisfaction due to the feeling of security in groups especially in unusual environments. The group is internally able to assimilate negative experiences easily and to foster the positive ones. According to portfolio theory, aggregation into groups reduces risks of being disappointed or dissatisfied with experiences (Tideswell and Bill, 1999). Length of stay (ξ_{11}) is likely to be negatively associated with satisfaction due to decline in novelty, discovery and enthusiasm as one gets familiar with a new environment.

4.7. Tour-Packages

All-inclusive package (AIP) tours are different from basic package tours, i.e., free independent travel (FIT) due to differences in composition. These packages are, however, limited in flexibility and are usually for a single destination. Some individuals put more value on being independent than on incurring lower costs, and hence will be more satisfied on free-independent travel arrangement. Generally, we expect all-inclusive packages to offer greater satisfaction.

4.8. Level of Expenditure

Expenditure incurred by tourists during their holidays can be decomposed into prepayments (pre-trip) and on-trip expenses.

4.9. Preferences

Various researchers have established empirical constructs explaining tourist preferences. Tourists preferences have been based on a set of external and internal factors (Murphy, 1985; Moutinho, 1987; Godall, 1991). External factors include cultural norms and values, family and reference groups, financial status and social class while internal factors encompass personality, lifestyle, learning and motivations.

Travel product preferences and travel related behaviour significantly influences choices of attractions visited (Wong and Kwong 2004). Several models have been established, that explain travel related behaviour (Clawson & Knetsh, 1966; Schmoll,1977; Mayo & Jarvis, 1981; Mathieson & Wall, 1982; Murphy, 1985; Jafari, 1987; Moutinho, 1987; Middleton, 1988). These models significantly explain the Cognitive (decision- making process), Evaluative (tourism experience), and lastly (conative) components of tourist behaviour.

Table 1 presents the latent variables and their indicators, and the hypothesized impacts of explanatory variables on satisfaction. Important rating concerning the weather, culture, wildlife, scenery, beaches, sports etc were considered as determinants to satisfaction.

Table1. *Measurement of the Variables*

Latent Variable	Indicators	Latent Variable	Indicators	Latent Variable	Indicators
Satisfy (η_1)		**Value** (ξ_3)		**Age**(ξ_5)	Age(x_{33})
	Ranking (y_1)		Accval(x_{15})	**Agesq**(ξ_6)	Agesq(x_{34})
	Favorite (y_2)		Mealval(x_{16})	**Gender**(ξ_7)	Gender(x_{35})
	Experien (y_3)		Transval(x_{17})	**Income**(ξ_8)	Income(x_{36})
Attract (ξ_1)			Tourval(x_{18})	**Socio-economic Status**(ξ_9)	Education position(x_{37})
	Weather(x_1)		Souvval(x_{19})	**Group Size**(ξ_{10})	Grpsize(x_{38})
	Culture(x_2)		Servalue(x_{20})	**Length of Stay**(ξ_{11})	Lenstay(x_{39})
	Wildlife(x_3)		Airptval(x_{21})		
	Scenery(x_4)	**Postcon** (ξ_4)			
	Beaches(x_5)		Crime2(x_{22})		
	Sports(x_6)		Health2(x_{23})		
	Others(x_7)		Instabil2(x_{24})		
Quality (ξ_2)			Raconflt2(x_{25})		
	Accqlty(x_8)		Poverty2(x_{26})		
	Mealqlty(x_9)		Hspity2(x_{27})		
	Transqlt(x_{10})		Accomm2(x_{28})		
	Tourqlt(x_{11})		Shopping2(x_{29})		
	Souvqlty (x_{12})		Attract2(x_{30})		
	Servqlty(x_{13})		Comerce2(x_{31})		
	Airptqlt(x_{14})		Transpt2(x_{32})		

All latent exogenous variables are positively related to satisfaction except Post-concerns, Age and Length of stay

5. LISREL MODEL

Since we aim at estimating both latent constructs and relationships between the constructs, we use the LISREL model. The LISREL model is made up of two related submodels: A latent variables measurement model, which represents the relationships between the latent variables and their observable indicators, and a structural model, representing the relationships between the latent variables.

Let $y = (y_1, y_2,..., y_p)^T$ and $x = (x_1, x_2,... x_q)^T$ be vectors of observable endogenous and exogenous variables, respectively.[1] Furthermore, let $\eta_1 = (\eta_1, \eta_2,..., \eta_m)^T$ be a vector of latent endogenous variables and $\xi = (\xi_1, \xi_2,..., \xi_n)^T$ a vector of latent exogenous variables. Finally, $\varepsilon = (\varepsilon_1, \varepsilon_2,... \varepsilon_p)^T$ and $\delta = (\delta_1, \delta_2,..., \delta_q)^T$ are defined as vectors of measurement errors of y and x, respectively.

The relationships between the observed and latent variables are given in the latent variables measurement models (1) and (2)

$$y = \Lambda_y \eta + \varepsilon \quad (1)$$

$$x = \Lambda_x \xi + \delta \quad (2)$$

Where Λ_y and Λ_x are (p × m) and (q × n) matrices of regression coefficients (also called factor loadings). The structural model consists of a set of relationships among the latent variables:

$$\eta = B\eta + \Gamma\xi + \zeta \quad (3)$$

Where B is an m × m coefficient matrix with β_{ij} representing the effect of the j-th endogenous variable on the i-th endogenous variable; Γ is an m × n coefficient matrix with γ_{ij} representing the effect of the j-th exogenous variable on the i-th endogenous variable; ζ is a random vector of residuals

In connection with models (1) – (3), the following notation is introduced. The covariance matrices of ε and δ, which need not be diagonal, will be denoted by θ_ε (p × p) and θ_δ (q × q) and the covariance matrices of ξ and ζ, by φ (n × n) and Ψ(m × m). It is possible to estimate intercept terms of the equations (1) – (3). Such parameters may be of interest in the comparison of different, mutually exclusive, samples. In such analysis, the intercept terms hardly provide any information. Therefore, the assumption is made here that both the observed and the latent variables are centralized. Formally:

$$E(y) = 0; E(x) = 0; E(\eta) = 0; E(\xi) = 0 \quad (4)$$

Thirdly, the following standard assumptions are made:

$$E(\varepsilon) = 0; E(\delta) = 0; E(\zeta) = 0$$

$$E(\eta\varepsilon^T) = 0; E(\xi\delta^T) = 0; E(\eta\delta^T) = 0; E(\xi\varepsilon^T) = 0; E(\varepsilon\delta^T) = 0 \quad (5)$$
$$E(\zeta\xi^T) = 0; E(\zeta\delta^T) = 0; E(\zeta\varepsilon^T) = 0$$

In (4) and (5) "0" denotes a vector or matrix of appropriate order.

Fourthly, multiple observable variables for a latent variable are often preferable and necessary so as to provide a tool for identification (Folmer, 1986). Besides, one single observable variable may be an indicator of more than one latent variable.

The problem of multicollinearity arises as a consequence of the occurrence of (highly) correlated explanatory variables. It usually leads to the increase of the estimated variances of the estimators of the coefficients of the collinear explanatory variables, so that one may be led to drop variables incorrectly. By means of the possibility to handle observable and latent variables simultaneously within one model framework, as in the LISREL case, the consequences of multicollinearity can be mitigated. This can be seen as follows. Collinear explanatory variables, which are indicators of a given latent variable, are dependent variables in one of the latent variables measurement models (1) and (2) and therefore are not removed from one of these models because of their collinear nature. Furthermore, in the structural model the latent variables appear instead of their corresponding observable variables. Therefore, collinear variables are included in the model in spite of the fact that they are collinear.

[1] The superscript "T"denotes the transposed vector or matrix

5.1. Estimation

Estimation of a LISREL model comes down to minimizing the distance between the sample covariance matrix $Z^T = (\gamma^T, X^T)^T$ and the theoretical covariance matrix $\sum$ which can be expressed in terms of the eight model matrices Λ_Y, Λ_X, β, Γ, Φ, Ψ, Θ_ε and Θ_δ.[2] The vector of unknown parameters in $\sum$ is denoted π.

In order to be able to draw inferences for the vector π from the variance-covariance matrix of the observable variables, the structure of $\sum$ has to be such as to allow a unique solution of π from $\sum$. Thus, the vector π has to be uniquely determined by $\sum$; in other words, the model has to be identified. A necessary, though not sufficient, condition for identification is that the number of distinct elements in $\sum$ is at least as large as the number of independent parameters to be estimated.

Seven methods of estimating model parameters are available in the LISREL program, i.e., Instrumental Variables (IV), Two-Stage Least Squares (TSLS), Unweighted Least Squares (ULS), Generalized Least Squares (GLS), Maximum Likelihood (ML), Generally Weighted Least Squares (WLS) and Diagonally Weighted Least Squares (DWLS). The first two methods are limited-information techniques and are usually adopted to provide starting values for the other techniques. Maximum Likelihood provides consistent and efficient estimators under the assumption of multivariate normality and is relatively robust against moderate departures from the latter. GLS provides similar results to ML when the multivariate normality assumption holds and is also relatively robust against violations of the latter. ULS is the only scale-dependent method whereby changes in the scale of one or more observed variables result in changes in estimates that do not reflect the scale of transformation. Unlike the scale-free methods such as ML and GLS, the changes in the parameter estimates under ULS may only reflect the change in the scale of the observed variables being analyzed. ULS is therefore less appropriate when variables are measured in different units. WLS and DWLS are designed to avoid assumptions concerning the distribution of the observed variables. They are called asymptotic distribution-free estimators. The asymptotic covariance matrix is needed to obtain estimates by WLS while asymptotic variances are required for DWLS. ML is the most frequently used estimation method. In the case of models where all the indicators are ordinal or have few categories, estimation techniques such as WLS become necessary. Below we discuss the Maximum Likelihood technique in detail.

Maximum Likelihood has been the 'traditional' estimator of LISREL models. The maximum likelihood procedure is based on minimization with respect to the unknown parameters of the non-negative function:

$$F = \tfrac{1}{2}\left[\log|\Sigma| + tr\left(S\Sigma^{-1}\right) - \log|S| - (p+q)\right] \tag{6}$$

by means of a modification of the Fletcher-Powell algorithm. In equation (6) $|.|$ stands for the determinant and *tr (.)* for the trace of the matrix concerned. When ξ, ζ, ε and δ are multinormally distributed (and thus the observed variable, *z*), then:

$$F' = -\tfrac{1}{2}M\left[(p+q)\log 2\pi + \log|\Sigma| + tr\left(S\Sigma^{-1}\right)\right] \tag{7}$$

is the log-likelihood function of the sample in the case of independent observations. The maximum likelihood procedure also produces an estimate of the covariance or correlation matrix of the estimators, which can be used for model judgement purposes. Although an estimate of the covariance or correlation matrix of the estimator is produced whatever sample matrix has been analyzed, the covariance or correlation matrix of the estimators is only valid when a sample covariance matrix has been analyzed

A necessary condition for the maximum likelihood procedure to give 'genuine' maximum likelihood estimates is the normal distribution of the observed variables. However, the distribution of the

[2] When the model contains censored or ordinal variables, the covariance matrix used for estimation should be based on canonical, polychoric or polyserial correlation instead of Pearson correlation.

observables is usually unknown in practice. Maximum likelihood under normality (i.e., application of maximum likelihood under the assumption of normality whereas the distribution actually deviates from normality) may, however, be defended on the basis of the fact that it usually leads to a reasonable fitting function and to estimators with acceptable properties for a rather wide class of distributions. Under quite weak distributional assumptions, maximum likelihood under normality is consistent and asymptotically normal. In the case of deviation from normality the standard errors and judgement statistics produced by the LISREL programme should be interpreted cautiously.

Finally we observe that sample size plays an important role in estimating and interpreting LISREL results as well as the estimation of sampling errors. Minimum sample sizes recommended in the literature range between 100 and 200 (Hair et al. 1995). The sample size also influences the number of parameters to be estimated. As a rule of thumb the sample size should be at least five times the number of parameters and with an absolute minimum of fifty respondents.

5.2. Model Judgement and Model Modification

The purpose of model judgement is to judge how well an estimated model fits to the sample data. Various aspects of a LISREL model may be considered in this connection.The statistics provided by the LISREL programme are related to:

- Individual parameters
- Separate equations of the latent variables measurement models and the structural model;
- The latent variables measurement model for the endogenous and the exogenous variables jointly;
- The structural model;
- The model as a whole (i.e. the overall fit)

6. EMPIRICAL RESULTS

6.1. Descriptive Statistics

Table 2 provides the descriptive statistics for the segmented and aggregate/pooled market.

Table2. *Descriptive Statistics*

	All-inclusive Tour-Package	**FIT**	**Pooled**		**All-inclusive Tour-package**	**FIT**	**Pooled**
Satisfy				**Value**			
Ranking	2.631 (0.532)	2.571 (0.571)	2.616 (0.542)	Accval	2.135 (0.49)	2.076 (0.471)	2.120 (0.486)
Favorite	2.459 (1.844)	2.514 (1.921)	2.473 (1.863)	Mealval	2.090 (0.525)	2.030 (0.507)	2.075 (0.521)
Experien	4.402 (0.673)	4.365 (0.742)	4.393 (0.691)	Transval	1.999 (0.411)	2.008 (0.458)	2.001 (0.423)
Attract				Tourval	2.099 (0.504)	2.035 (0.448)	2.083 (0.491)
Weather	2.344 (0.673)	2.292 (0.711)	2.331 (0.683)	Souvval	2.023 (0.44)	2.018 (0.446)	2.022 (0.442)
Culture	2.470 (0.57)	2.453 (0.565)	2.466 (0.568)	Servalue	2.032 (0.384)	2.068 (0.399)	2.041 (0.388)
Wildlife	2.218 (0.58)	2.252 (0.609)	2.227 (0.588)	Airptval	1.974 (0.372)	2.003 (0.345)	1.981 (0.365)
Scenery	2.672 (0.51)	2.577 (0.566)	2.648 (0.526)	**Postcon**			
Beaches	2.255 (0.661)	2.335 (0.668)	2.275 (0.663)	Crime2	1.913 (0.638)	1.960 (0.662)	1.925 (0.644)
Sports	1.587 (0.585)	1.589 (0.611)	1.587 (0.591)	Health2	2.194 (0.636)	2.159 (0.649)	2.185 (0.64)
Others	1.590 (0.586)	1.710 (0.608)	1.620 (0.593)	Instabil2	1.790 (0.619)	1.804 (0.653)	1.793 (0.628)
Quality				Raconflt2	1.667 (0.615)	1.685 (0.627)	1.672 (0.618)

Accqlty	2.201 (0.582)	2.128 (0.583)	2.183 (0.583)	Poverty2	2.352 (0.656)	2.398 (0.634)	2.363 (0.651)
Mealqlty	2.155 (0.595)	2.098 (0.618)	2.140 (0.601)	Hspity2	1.595 (0.659)	1.690 (0.668)	1.619 (0.663)
Transqlt	1.982 (0.499)	1.985 (0.559)	1.983 (0.515)	Accomm2	1.741 (0.668)	1.776 (0.687)	1.750 (0.673)
Tourqlt	2.182 (0.603)	2.123 (0.584)	2.167 (0.598)	Shopping2	1.706 (0.612)	1.750 (0.644)	1.717 (0.62)
Souvqlty	2.082 (0.47)	2.071 (0.532)	2.079 (0.486)	Attract2	1.651 (0.653)	1.753 (0.666)	1.677 (0.657)
Servqlty	2.040 (0.433)	2.081 (0.475)	2.050 (0.444)	Comerce2	1.666 (0.621)	1.768 (0.649)	1.692 (0.629)
Airptqlt	1.997 (0.445)	2.038 (0.422)	2.008 (0.439)	Transpt2	1.861 (0.647)	1.899 (0.655)	1.870 (0.649)

NB: standard deviations are in brackets

Differences between all inclusive packages travellers and independent travellers in terms of Motivations to travel, value assessment, Quality and satisfaction were extremely small. A likelihood ratio test (LR) was conducted in order to test the null hypothesis that the covariance structure of the all-inclusive model and that of the free independent travel model were different. The likelihood ratio was equal to 0.310 (df= 52; $p<.05$). The hypothesis was rejected and hence the pooled sample was used for further analysis as given in the following sections.

6.2. LISREL Estimates

6.2.1. Overall Fit

A comparatively well-fitting model is indicated by a chi-squared value that approximates the degrees of freedom as stated in the previous chapter. In practice ratios of the chi-squared to degrees of freedom of 5 (Wheaton et al., 1977) or even 2 (Carmines and McIver, 1981) have been used as thresholds. This ratio for the pooled model was 3.974 as calculated from the minimum fit function value and the respective degrees of freedom for the model.

The other goodness of fit statistics also indicated a reasonable fit. For instance, the root mean square error of approximation (RMSEA) of 0.0498 was within acceptable range. Brown and Cuddeck (1993) suggested that RMSEA value of about or below 0.05 indicate a close fit of the model in relation to degrees of freedom, and values of 0.08 or below indicate a reasonable fit. Goodness of fit statistics showed that high relative amounts of variances and covariances were accounted for by the model. For instance, the goodness of fit index (GFI) was 0.884.

6.2.2. Measurement Model

Most of the constructs were well captured by their respective measures (see Table 3). The reliabilities of the various constructs were satisfactory: 0.690; attractions, 0.440; quality, 0.629; value for money, 0.673; concerns during holidays, 0.852 and socio-economic status, 0.391. However, the reliabilities are slightly lower than the desirable level of 0.6 in the case of attractions and socio-economic status (Bagozzi & Yi, 1988). As a conclusion, the indicators provide reliable measurements of the latent variables and hence the model is valid and generally reliable for testing the stated hypotheses.

Table3. *Measurement Model (Pooled)*

	Coefficient	**R^2**		**Coefficient**	**R^2**
Satisfy			**Value**		
Ranking	1.000 (0.000)	0.565	Accval	1.000 (0.000)	0.501
Favorite	2.315 (0.149)	0.257	Mealval	0.979 (0.048)	0.417
Experien	1.181 (0.067)	0.486	Transval	0.425 (0.036)	0.119
Attract			Tourval	0.836 (0.043)	0.344
Weather	0.077(0.073)	0.001	Souvval	0.458 (0.036)	0.128
Culture	1.003 (0.080)	0.228	Servalue	0.494 (0.030)	0.193
Wildlife	1.000(0.000)	0.282	Airptval	0.212(0.029)	0.040
Scenery	1.527(0.122)	0.564	**Postcon**		
Beaches	0.588(0.079)	0.058	Crime2	1.000(0.000)	0.058

Sports	0.214(0.066)	0.010	Health2	1.353(0.144)	0.106
Others	0.001(0.065)	0.0001	Instabil2	1.586(0.158)	0.140
Ses			Raconflt2	2.039 (0.194)	0.239
Educat	0.107(0.051)	0.029	Poverty2	0.717(0.131)	0.028
Occupt	1.000(0.000)	0.839	Hspity2	3.165(0.328)	0.500
Quality			Accomm2	3.364(0.347)	0.549
Accqlty	1.000(0.000)	0.403	Shopp2	3.106(0.320)	0.550
Mealqlty	1.002(0.057)	0.370	Attract2	3.716(0.378)	0.700
Transqlt	0.289(0.041)	0.043	Comerce2	3.205(0.329)	0.569
Tourqlt	0.893(0.053)	0.303	Transpt2	2.961(0.309)	0.457
Souvqlty	0.613(0.042)	0.211			
Servqlty	0.481(0.038)	0.157			
Airptqlt	0.240(0.034)	0.040			

NB: Standard errors in brackets

6.2.3. Structural Equation Model

Quality, attractions, value assessment, post-concerns, income and gender, and to a lesser extent group size were significant predictors of satisfaction (see Table 4). Attractions, value for money assessment, gender, and income and group size had positive associations with satisfaction. On the other hand, age and concerns had negative impacts on the level of satisfaction.

Table4. *Estimated structural equation parameters: Aggregate market*

Variable Name	**Coefficient**	**T-value**
Attract	0.412	(7.352)
Postcon	-0.354	(-3.914)
Value for money	0.244	(6.068)
Quality	0.666	(19.231)
Age	0.069	(1.515)
Agsesq	-0.082	(-1.558)
Gender	0.062	(2.640)
Income	0.015	(1.766)
Ses	-0.016	(-1.051)
Grpsize	0.008	(1.904)
Lenstay	-0.017	(-0.368)
$\mathbf{R}^2 = 0.219$		

The importance of attractions was a significant determinant of satisfaction. This implies that the higher the importance placed on attractions, the more satisfied tourists will be. This finding is consistent with the literature. Motivation for travel as indicated by attractions' importance is a central concept in understanding satisfaction and generally tourism behaviour. Post-concerns had a direct negative effect on satisfaction. Product quality is significant in determining satisfaction.

The notion of value for money as a direct antecedent of satisfaction was also supported by the current study. Consequently, the observation that high levels of perceived value generally result in higher levels of customer satisfaction is consistent with our results.

Personal characteristics and trip attributes that were found to influence satisfaction significantly were gender and, at 10% level of significance, group size and income. Their effects on satisfaction were positive. Gender, income and generally trip attributes were also significant in related past studies.

Age, socio-economic status and length of stay were not statistically significant in this study. The non-significance of these variables in the current study may have been be due to high similarities in expectations or experiences with regard to the respective variables.

7. SUMMARY AND CONCLUSION

The purpose of this paper was to identify the main determinants of satisfaction and to test for satisfaction differences between free independent travellers and all inclusive package travellers. The descriptive statistics showed minor differences in preferences and choice. The formal test allowed for pooling.

The pooled model showed the variables that significantly influenced satisfaction were attraction preferences, concerns, and quality and value disconfirmation assessments. Among the personal and trip attributes, only gender was significant whereby female tourists were more satisfied than their male counterparts. Group size and income were significant at 10% level of significance.

8. POLICY RECOMMENDATIONS

Based on the conclusions made in the study, several recommendations were made. Tourist satisfaction can be achieved by targeting high yield, large group travellers. However, since tour-packaging does not significantly influence preferences, expenditure levels and satisfaction of Tourists, other bases of differentiation ought to be adopted. Quality and value of tourism products need to be enhanced.

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