CHAPTER 4

RESEARCH METHODOLOGY

Describes that methodology adopted for the study is scientific. Discuss about survey instruments, variables and items, sampling methodology, data collection, and analysis techniques.
4.1. INTRODUCTION

This chapter discusses the research design and the methodology adopted to meet various objectives of the study. Also, it elaborates on the research design used in the present study including development of research tools, validation of instruments, details of sample, data collection procedure, and the statistical techniques employed for data analysis.

An ideal research is a strategy of enquiry, that progress from basic assumptions to research design and data collection (Myers 2009). It is generally interpreted as an appropriate process or technique, which are conducted in the quest for solutions to prevailing issues or answers to complex questions posed in the inquiry. Being a process, it often involves defining a research objective and selection of the suitable techniques that will help to resolve problems. According to Williams et al., (1996), the credibility of the findings of any research solely depends on the methodology adopted. Researchers choose both quantitative and qualitative
methods, depending on the nature of the study and its methodological foundation (Brysman and Burgess, 1999).

Considering the nature and methodology of the study, this research methodology chapter is divided into two sections. First part deals with the methodology of testing the structural model linking Responsible Tourism (RT), Perceived Destination Sustainability, and Quality of Life (QOL) of local residents and the second part discusses the instrument development process of the construct-Responsible Business. The research process involved two phases. First phase was literature review, identification of variables, confirmation of hypotheses, and development of theory. Second phase was exploratory on Responsible Business including scale design, questionnaire design, and data collection consisting of literature review, interview and expert consultation, and focus groups.
PART 1

4.2. RESPONSIBLE TOURISM, DESTINATION SUSTAINABILITY, AND QOL – STRUCTURAL MODEL

4.2.1 Survey Instrument

The survey instrument is related to three sections; Responsible Tourism, Destination Sustainability, and Quality of Life (QOL) of local residents. In the final structural model, the variable ‘Responsible Tourism’ is an exogenous variable and all other variables are endogenous.

**Responsible Tourism Practices:** The scale on responsible tourism practices in the tourism destination consisted of 13 items adopted from the Kerala Declaration on Responsible Tourism (Venu & Goodwin, 2008). This variable utilized to measure the perception of local community about tourism practices using a 5-point Likert type scale consisting of statements seeking the extent of agreement of respondents. The anchors include: a) Strongly Disagree, b) Disagree, c) Neutral, d) Agree, and e) Strongly Agree.

**Perceived Destination Sustainability:** The sustainability of the destination perceived by local residents consisted of four dimensions viz. economic sustainability, social sustainability, cultural sustainability, and environmental sustainability. These scales were adopted from ‘Making Tourism More Sustainable; A Guide for Policy Makers’ published by United Nations Environment Program and World Tourism Organization (UNEP & WTO, 2005).
It was also measured using a 5-point Likert scale seeking the extent of agreement towards items reflecting the perception of community towards destination. The anchors include: a) Strongly Disagree b) Disagree c) Neutral d) Agree, and e) Strongly Agree.

**Quality of Life (QOL):** QOL dimensions (life domains) are Material Well-Being, Community Well-Being, Emotional Well-Being, and Health and Safety Well-Being. Scale of QOL adopted from a study ‘Impacts of Tourism on the QOL of Residents in the Community’ by Kim (2002) in Virginia. The items from Andrew and Withey, (1976), Ciccherchia, (1996), Cummins, (1996), and Sirgy, (2001) were adopted and tested by Kim in the same context. Five-point Likert Scale of QOL used anchors very dissatisfied to very satisfied, and strongly disagree to strongly agree for statements depending up on its nature. Three items were used to measure QOL in general. The first two items were measured on a five-point Likert-type scale with anchors very dissatisfied, dissatisfied, mixed feeling, satisfied, very satisfied, and the third item was measured with five different semantic statements (Andrew & Withey, 1978, Kim, 2002; Sirgy et al; 2001, and Walker et al; 1990).

Face validity of the construct was done through an expert validation procedure. All the items of the variables were framed after consultation with tourism experts in academics and industry.
4.2.2 Sources of Instrument for Data Collection

Standardized scales were adopted for the study. Variables, number of items and sources are given in table 4.1.

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>No. of Items</th>
<th>Adopted from</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsible Tourism</td>
<td>13</td>
<td>(Goodwin &amp; Venu, 2008).</td>
</tr>
<tr>
<td>Economic Sustainability</td>
<td>6</td>
<td>(UNEP &amp; WTO, 2005).</td>
</tr>
<tr>
<td>Social Sustainability</td>
<td>8</td>
<td>(UNEP &amp; WTO, 2005).</td>
</tr>
<tr>
<td>Cultural Sustainability</td>
<td>5</td>
<td>(UNEP &amp; WTO, 2005).</td>
</tr>
<tr>
<td>Environmental Sustainability</td>
<td>6</td>
<td>(UNEP &amp; WTO, 2005).</td>
</tr>
</tbody>
</table>

The questionnaire was translated into Malayalam with the help of a Malayalam Professor and a grammarian. Both the Malayalam and English questionnaires were tested among 10 post graduates and all the items were found to have very good correlation. Questionnaire is attached as annexure 1.
4.2.3 Pilot Study

A pilot study was conducted in Kovalam by randomly collecting responses from 40 residents aged above 20, who reside in that place for more than 10 years. This pre-test provided an opportunity to find and correct the instrument. Certain questions, felt uncomfortable, ambiguous and unclear by the respondents were either revised or reworded. Based on the total internal consistency assessment Cronbach’s alpha and composite reliability estimates, 4 questions found not reliable were removed from the scale finalized by the expert panel.

4.2.4 Data Collection and Sample

A self-administered survey questionnaire was used to collect data. Data were collected from any one of the individuals from the family of age twenty or above.

Destination Selection Criteria: The study was conducted at three major tourism destinations of Kerala, viz. Kovalam, Kumarakom, and Thekkady, which were officially declared as responsible tourism destinations in the year 2008. Beyond this, destinations were selected on the basis of resilience suggested by Rabeendran (2009) which includes the availability of plenty of natural resources, skilled manpower, supportive entrepreneurial community, strong local self governments, civil society organizations, multitude of micro enterprises, streams of professionals and academicians, responsible media, and responsive tourism industry that provide the state an ideal setting to implement and practice ‘Responsible Tourism’.
In this background, following criteria were decided in consultation with tourism academicians and professionals in the tourism sector to select destinations.

1. There should be specified influential area of tourism activity
2. There should be sufficient natural resources or attractions
3. There should be sufficient tourist inflow (minimum 1000 foreign travelers/year)
4. There should be strong entrepreneurial community (presence of all major types of classified hotels/resorts)
5. It should be resilient in any of the triple bottom line responsibility areas of Responsible Tourism (Social, economic, environment and cultural)

Brief analyses on the destination selection criteria are given in table 4.2

Table 4.2 Destination and Selection Criteria

<table>
<thead>
<tr>
<th>Destination</th>
<th>Resources/Attractions</th>
<th>FTA* (2012)</th>
<th>Classified Hotels</th>
<th>Resilience</th>
<th>Score**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kovalam</td>
<td>Beaches and Village tours</td>
<td>221435</td>
<td>38</td>
<td>Economic</td>
<td>68</td>
</tr>
<tr>
<td>Kumarakm</td>
<td>Backwater, Bird Sanctuary and Village Tours</td>
<td>4867</td>
<td>35</td>
<td>Social</td>
<td>65</td>
</tr>
<tr>
<td>Thekkady</td>
<td>Periyar Wild Life Sanctuary, Tribal Settings, and Boating</td>
<td>4988</td>
<td>35</td>
<td>Cultural and Environmental</td>
<td>89</td>
</tr>
</tbody>
</table>

*FTA - Foreign Tourist Arrival
** As per the Community Feedback Survey (Kerala Tourism, 2009) - Average score consists of employment opportunities, regional development and enterprise development (Source: Kerala Tourism Statistics, 2012. *approx.)
Influential area of tourism destination refers to the extent of reach of tourism activities or the probable span of influence of tourism on community. This was decided after discussion with destination management body consisting of local tourism officials, civil society organization representatives, and community members.

**Sample Selection:** Systematic random sampling methodology was used to select sample units (households). 20% of the residents in the span of influential area were considered for the study and decided to collect data from 490 households (160 from Kovalam, 150 from Kumarakom, and 180 from Thekkady). A total of 432 questionnaires were returned. Among these only 399 were found useful for the analysis.

**4.2.5 Data Analysis Techniques**

The study conceptualized a casual relationship between variables and functional relationship between the causal factors. The effect is predicted on the performance variable. Hence causal research is most appropriate (Hair et al; 2003). Structural Equation Modeling (SEM) is a statistical technique for estimating causal relationships. It is a confirmatory technique used to determine whether the model conceptualized for the research is valid for data. SEM was used in this study to establish relationship among the variables.

**Validity and Reliability Analysis:** A three level approach was adopted for data analysis. After removing missing values and outliers, normality was checked.
The first attempt was to identify the existence of distinct factors structure by performing an Exploratory Factor Analysis (EFA). For this purpose, the data were splitted into two and performed EFA. The second step was to confirm the evolved factor structure or the measurement models using Confirmatory Factor Analysis (CFA). It ensures the uni-dimensionality of the scales which measure each construct in the model. It helped to avoid interaction of the measurement and structural models that could affect the parameters associated with the hypothesized relationships between the constructs in the model. Hence, before testing the overall measurement model, the measurement uni-dimensionality of each construct was assessed individually (Sethi & King, 1994).

After fixing the uni-dimensionality of each construct, measurement model for each pair of constructs were estimated. Further, all the constructs were paired with each other ((Joreskog & Long, 1993, and Sethi & King, 1994). The principal advantages of the overall model fit measures are that it can evaluate the whole model. It will also indicate inadequacies which are not revealed by the fit of individual model components.

**Hypotheses Testing:** Multivariate data analysis was intended to test the hypotheses for the proposed antecedents and consequences. For this, Structural Equation Modeling (SEM) was utilized. According to Kim (2002), SEM allows simultaneous estimation of the measurement model that depicts the relation between observed indicators in each scale to the construct, giving factor loadings
for each observed indicator. Also, structural model that relates constructs to one another provides parameter values or path coefficients.

The scale then tested for Reliability, Convergent Validity, and Discriminant Validity. The structural model was tested using Warp PLS 2.0.
PART 2

4.3 RESPONSIBLE BUSINESS

4.3.1 Research Process

This study was undertaken to develop a context based self-reporting measure of Responsible Business in tourism hospitality accommodation units. In order to achieve this objective, the study was divided into two phases. The Phase I of the study was designed to generate most suitable items which reflect the variables of construct Responsible Business and its refinement, and Phase II was carried out to determine its internal consistency and factor validity (Khalid, 2004).

Phase I: Item Generation for the development of the construct Responsible Business.

As discussed in the theoretical framework, the concept Responsible Business is multidimensional construct consists of Governance and Management, Social Responsiveness, Product and Customer Focus, Environmental Performance, and Economic Responsibility. Details of the constructs and sub constructs (dimensions and sub-dimensions) are given as table 4.3.
Table 4.3 Dimensions of Responsible Business

<table>
<thead>
<tr>
<th>Dimensions and Sub-Dimensions of Responsible Business</th>
<th>Governance and Management</th>
<th>Social Responsiveness</th>
<th>Product and Customer Focus</th>
<th>Environmental Performance</th>
<th>Economic Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governance and Management</td>
<td>Transparency and Accountability; Responsible Management, Employee Welfare and, Human Resource Development</td>
<td>Policy against Discrimination and Exploitation, Community Development, Stakeholder Engagement, and Promotion of Art and Culture</td>
<td>Customer Satisfaction and Responsible Marketing</td>
<td>Resource Conservation, and Waste Management</td>
<td>Local Employment and Skill Development; and Local Enterprise Development</td>
</tr>
<tr>
<td>Social Responsiveness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product and Customer Focus</td>
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<tr>
<td>Environmental Performance</td>
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<tr>
<td>Economic Responsibility</td>
<td></td>
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</tbody>
</table>

The generation of items for these dimensions was materialized through the following steps (Khalid, 2004):

**Step I Expert Survey:** The first step in the development of the scale involved generation of indicators of the dimensions of the construct “Responsible Business”. Experts from (a) Academics, (b) Tourism Professionals, (c) Practioners, and literature were considered for item generation. Seven experts having at least twenty years of working experience from the above categories were selected in this stage. In order to collect indicators from all the above mentioned groups, an open-ended questionnaire (containing the definition of the construct and its five dimensions along with a brief on the back ground of the study) was distributed among the respondents (annexure. 3). Respondents were asked to “list at least five indicators/description for each dimension”. They were also provided with a few examples of indicators. Along with these, a detailed literature review and a subsequent content analysis were done to identify and
refine key indicators of the five dimensions of the construct - Responsible Business

**Step II Elimination of Items:** Items for each dimension were generated through expert survey and literature review. It was then pooled and removed all the redundant indicators. Based on the initial review, a primary list of indicators was prepared (annexure 4).

**Step III Relevancy Test:** The next step was to identify the relevance of each indicator. All the indicators were listed and again distributed among the experts. They were asked to rate these items on the basis of its relevance, applicability, and extent of practice in the industry (annexure 5). It used a five point Likert scale consisting of ‘not at all relevant’, ‘irrelevant’, ‘slightly relevant’, ‘relevant’, and ‘very relevant’. Collected data were analyzed and all the items below the threshold level of 3.5 were removed (Schwartz et al; 2006).

**Step IV Face Validity Test:** This step was to verify the conceptual classification of each dimension. A Performa (annexure 6) was prepared which included definitions of Responsible Business and its dimensions along with the list of indicators. The indicators were listed in a random manner. This Performa was distributed among fifteen researchers and asked them to “categorize the items to their relevant dimensions, keeping in view the definition of five dimensions”. Collected data were analyzed and either revised or removed the items below a threshold 4 (out of 5) which reflects lack of conformity and clarity (Schwartz et al; 2006).
Step V Content Validity Test: The fifth step was aimed at the selection of representative items for each dimension. A panel of experts was provided with the definition of the construct and dimensions along with the corresponding items (annexure 7). They were requested to choose the representative items for each dimension keeping in view of the respective definition by marking any of the anchors from ‘not at all relevant’ to ‘very relevant’. All the items having threshold less than 4 were removed and a final list was prepared. This was to prove the face validity between the specific dimensions and their component items.

These selected items were converted to statements with the help of experts. Finally, a questionnaire containing 51 items with five response categories (a) Disagree, (b) Slightly Agree (c) Agree (d) Strongly Agree (e) Very Strongly Agree was prepared. As this instrument is on Responsible Business practices and to be measured through a self reporting mechanism; the anchors selected assume existence of a minimum level of responsibility in order to minimize extrapolation.

Step VI Pilot Study: Finally, a pilot study was conducted in 30 classified hotels in Kerala to test the consistency of scale items followed by the main study (annexure 2).
4.4 SUMMARY

This chapter narrated the methods adopted to ensure that the study is scientific. In order to strengthen the theoretical foundation, it also substantiated the rationale for each decision regarding data collection strategy, sample size, questionnaire design, and analysis methods. As discussed, present study has both qualitative and quantitative approaches. The chapter was divided into two sessions; first part dealt with the structural model whereas the second part discuss the procedure of the development of the construct – Responsible Business in detail. The qualitative phase was conducted through expert opinion, literature review and content analysis, and quantitative part envisaged statistical analysis using software packages. Finally, it concluded with the proposed analysis of data and rationale for using each procedure.

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