Chapter 2
Review of literature and research methodology

In order to identify the key issues associated with tourism and its determinant, it would be worthwhile to glance into the available empirical literature in this context. Even though it is not possible to contain all the published and unpublished research on the topic yet an attempt has been made to include all the available work.

For better insights, and in the backdrop of the objectives of the present study, the chapter on review of literature has been divided into three sections. After introduction in section I, section II includes studies related with tourism and its determinants. In the section III research gaps, objectives, data and methodology, limitations of the present study have been presented.

2. Tourism and its determinants

Hauser & Urban (1986) in their study, *The Value Priority Hypotheses for Consumer Budget Plans*, hypothesized that consumer spending on durable goods (which also includes vacations) was done in an order of preference based on 'value priority' or 'net value priority'. According to them consumers made their budget allocation on the basis of marginal utility per dollar. The authors utilised data during the years 1983-1985 for actual 215 budget plans and employed linear programming. The measure used by them included reservation price, purchase probability, lottery order, and combination lottery prices. The hypothesis was tested using convergent linear programming and was not rejected and it matched budget plans of the respondents.

Um & Crompton (1992) in their study titled *The Roles of Perceived Inhibitors and Facilitators in Pleasure Travel Destination Decisions*, emphasised that destination choice decision is a three-stage process, involving an early evoked set, a late evoked set and a final destination decision. The objective of the study was to identify the roles of the perceived inhibitor and facilitators at two different stages of the decision process namely, evolution of an evoked set of destinations from an awareness set and selection of a travel destination from an evoked set of destination. The total sample of their study was of 359 undergraduate college students attending a professional development program at the university. Multi-item scales were developed by them to measure three personal and situational dimensions impacting travel decisions, namely need satisfaction, social agreement and travel ability.
The authors found that at the early stage of destination selection, magnitude of the perceived facilitators was a significant indicator in predicting which destinations evolved to late evoked set from early evoked set and at the later stage the magnitude of perceived inhibitors that was the significant indicator of destination selection. Their results suggested that choice was a satisfying behaviour driven by constraints rather than optimizing behaviour driven by attributes.

Bhardwaj (1998) in the edited book titled *Domestic Tourism in India*, compiled twenty-two articles on domestic tourism written by various researchers and academicians from India. The book consisted studies ranging from macro level to micro level data on specific destinations. The book was divided into four sections namely: domestic tourism: an overview, important issues in domestic tourism, domestic tourism and human resource management, case studies in domestic tourism. All the contributors of the book were Indian researchers and practitioners. The book is one of the few and early attempts to understand domestic tourism in India and its importance.

Aguiló Perez & Juaneda (2000) in the study, *Tourist Expenditure Determination in A Cross-section Data Model*, aimed to firstly, characterize the tourist expenditure per person per day at a specific destination by different tourist profiles via a cross sectional data. Secondly, it was aimed to estimate tourist income by differentiating the income spent at country of origin and at tourist destination. Lastly, the study aimed to create different tourist profiles so as to estimate difference in their expenditure profiles. The data for their study was obtained from a survey called Survey of Tourist Expenditure in the Balearic Islands. A sample of 5500 tourists was taken by them to create a model showing segmentation in tourist markets and utilised regression models. The authors estimated the tourist income spent at the destination. The results showed that factors like age, nationality, profession, type of accommodation and type of booking, etc. had an influence on tourist expenditure. The study also analysed different tourist profiles. The study implied that at business level such product strategies should be undertaken that focus should be on productivity in terms of expenditure and recommended that administration should promote campaigns that target consumers with superior level of expenditure.

Asensio (2002) in his work titled *Transport Mode Choice by Commuters to Barcelona’s CBD*, estimated the determinants of the mode choice of suburbanized commuters of
Barcelona, Spain. The paper also focuses on the values of travel time savings for commuters in public and private transport modes and has modelled choice elasticity with respect to different variables. The author has specified transport mode choice problem as a two-stage multinomial nested logit model with three alternatives private car, bus and rail. According to author, in the first stage, the alternatives were private car and public transport and if public transport had been chosen initially, a subsequent choice was made between bus and rail. The data was a sample of 1381 residents in Barcelona’s periphery who commute daily to the city centre and the sample has been obtained from the Enquesta de Mobilitat Quotidiana (EMQ), a travel survey carried out in 1996 by Barcelona’s Metropolitan Transport Authority. The author utilised monetary cost, travel time, waiting time, transfer distance, frequency, gender, head of household, access, density, distance and inclusive value as independent variables. The findings suggest that there has been a continuous increase in private car use with an increase in suburbanization, the mode’s share has risen by 10 percentage points in 10 years. He found that increasing suburbanization led to higher costs, times and distances, resulting in an increase in the probability of choosing rail at the expense of bus, while the share of private car remained unchanged. The author mentioned that the car choice elasticity was not responsive to price changes but was responsive to travel times. Therefore, he recommended that to increase the usage of public transport by commuters and reduce private car usage, travel times need to be focused and modified.

Eugenio-Martin (2003) in his study, Modelling Determinants Of Tourism Demand As A 5-Stage Process, A Discrete Choice Methodological Approach, analysed different attributes of tourism choice. The paper discussed that people with same socio-demographic backgrounds can choose different tourist destinations. According to author this was the result of a 5-stage decision process. In the first stage, consumers decided whether or not they wanted to travel within a period of time. Second stage, estimated the budget for tourism expenses. Third stage, decided frequency and length of stay of trips. At the fourth stage, decision was taken regarding the kind of destination to be visited. At fifth stage, the destination and the mode of transportation is decided. In the paper author modelled each of these stages and their relationship. According to author, each stage had its own methodology (logit model, probit model, maximum likelihood estimation, regression analysis, log-likelihood, etc).

Eilat & Einav (2004) in their research paper titled Determinants of International Tourism: A Three-Dimensional Panel Data Analysis, explored the determinants of international tourism through a discrete choice estimation technique applied to a large three-dimensional data set
of tourist flows. The dependent variable was created using data on annual origin-to-destination tourist flows between the years 1985-1998 by the authors. The dataset included all countries worldwide, both as origins and as destinations and was published by WTO. The authors used a standard multinomial logit technique to derive the results. It was observed by the authors that tourism to developed countries had a price elasticity of one while tourism to less developed countries was unresponsive to price fluctuations and political risk was also seen to be an important factor in tourism destination choice. According to authors, other factors like common border, common language and distance were all important in determining tourism flows and even fashions also seemed to play a role in tourism flows. The results of this study were seen to be more stable than those of the previous literature, since this study was carried out on a more detailed dataset with a rigorous estimation technique.

Naudé & Saayman (2005), in their study titled *Determinants of Tourist Arrivals In Africa: A Panel Data Regression Analysis*, examined the determinants of tourist arrivals in 43 African countries from European Union, Americas (US and Canada) and Africa itself. The data used by authors was based on a period of 1996-2000 from sources like World Trade Organisation, World Bank. The author analysed four dependent variables based on country of origin of the arrivals, namely, total tourist arrivals per year, arrivals from Europe, arrivals from Americas and arrivals from Africa. The authors employed single-equation regression models using OLS and first-step generalised method of moments. The authors also used panel data techniques (Static and Dynamic). Authors studied static panel data regression models by using generalised least square and dynamic panel data regressions by using Arellano-Bond first step generalised method of moments. The authors from cross-sectional data found that political stability (for international tourists), communication infrastructure and marketing (internet usage), level of development (urbanization rate), culture, wildlife and diversity of Africa determine tourist arrivals. The authors using panel data found that tourist arrivals were influenced by political stability, tourism infrastructure (hotel capacity), health risk (malaria) and culture & diversity of Africa. The results differed a little from both the techniques and the authors found that indicators like income in the origin country, cost of travel, and prices were found less significant. The authors recommended that to improve tourism overall stability of the continent should be improved and infrastructure for tourism should be improved.
Alegre & Pou (2006), in their study, *Length of Stay in the Demand for Tourism*, aimed to estimate the microeconomic determinants of the length of stay of tourists in one of the most popular sand and sun destination of Mediterranean called Balearic Islands. The data from the Tourism Expenditure Survey (from 1993-2003) by the regional government of Balearic Islands was utilised by the authors. The sample consisted of 24896 interviews and authors adopted discrete logit models. The authors found that age, nationality, type of accommodation, type of board, number of trips taken earlier to Balearics, package holiday, repeat visitation rate, travel motives, size of the party and daily price of the stay, determined the length of the stay. According to them, besides the travel motives (quality of hotels and beaches) and group size also had influencing effect on the length of stay. The authors recommended that commercial price policies and marketing campaigns should aim to attract tourists as longer length of stay will ensure higher earnings.

Alegre & Pou (2006a) in their study, *An Analysis of the Microeconomic Determinants of Travel Frequency*, examined the microeconomic determinants of frequency of travel. The paper also aimed to distinguish between determinants of participation decision and determinants of travel frequency. The paper also focused on the existence of habit persistence in tourism decisions. The data from Spanish Family Expenditure Survey, for the period 1987-1996(8318 households) was utilised by authors. The authors stressed that the dataset did not have data on number of trips taken by households and therefore frequency of travel was measured by number of quarters with positive tourist expenditure. The authors used count data model for the estimation of travel frequency and for explaining household’s variability in terms of a set of explanatory variables. The authors found that socio demographic factors can explain only participation decision and not frequency. The authors also estimated that previous years tourism demand decisions (suggesting evidence of habit of persistence) and disposable income (income elasticity less than one) influenced both participation decision and frequency. The authors also estimated that participation decision or probability of travelling was most effected by disposable income, previous year number of quarters with tourist expenditure, labour market participation and family composition, age and probability of travel. The authors in case of frequency of travel, found that family size, disposable income and previous year number of quarters with tourist expenditure influence travel frequency. The authors recommended that different marketing targets for participation decision and frequency of travel decision and stressed that policy decisions should aim at frequency of travel.
Barrosa & Correiab (2007) in their study, *Survival Analysis in Tourism Demand: The Length of Stay in Latin American Destinations*, analysed the determinants of the length of stay of Portuguese tourists in Latin America using survival models. The authors utilised budget, destination attributes, socio-demographic characteristics, information, return, temporal constraints, frequent traveller and expectations as explanatory variables and dependent variable was the length of stay (measured in days). The primary data from 442 individuals in August and September 2004 departing from Lisbon Airport was collected by authors. The authors employed traditional Cox proportional hazard model, logistic distribution model, and proportional hazard Weibull model. The authors found that results of these models are somewhat similar and budget, destination attributes, being younger, class status, group travel, having previously visited, expectations impact the length of stay. The authors recommended that policy should aim at influential households i.e. with younger people, having higher budgets, and booking their holidays in advance, and receiving destination information through word to mouth.

Chorus, Arentze, & Timmermans (2008) in their study titled *A Random Regret-Minimization Model of Travel Choice*, emphasised that travel choice is a regret minimization phenomenon rather than utility maximization. The authors were of view that travellers make a travel choice between travel alternatives with a view of minimizing their regrets of not having chosen the other alternatives. The authors collected the data using multimodal travel simulator, where participants could choose between travel alternatives with risky travel times and costs. The authors suggest that travel choice models are a non-compensatory or semi-compensatory. The authors found that the travellers who are not comfortable with their current travel choice situation may postpone their travel or search for information. According to authors the regret minimization model is straightforward and tractable and can be utilised to study travel behaviour.

Fredman (2008) in his study, *Determinants of Visitors Expenditures in Mountain Tourism*, examined and compared the spending patterns of visitors to the mountain region of Sweden. The data utilised by authors was collected through a two-section survey from four types of visitors i.e. downhill skiers, backpackers, snowmobilers and general visitors, between November 2000 to February 2001, from 3506 respondents. In the research, expenditure data were collected for both at mountain region and outside the mountain region. The author estimated the data using log-linear model for both expenditures at the destination and outside the destination. The author found that for expenditure at the destination, income and
length of stay were positively related to expenditures. The results showed that downhill skiers spend more and the backpackers less and students and people attending organised trips tended to have lower expenditures than others. The authors also estimated that people using commercial accommodation had higher expenditures. In model outside destination, the author estimated that most of the results were in sync with first model of at the destination except that males spend more outside the destination than females and downhill skiers spend less than general visitors. The author recommended that to increase the earnings the industry should develop summer tourism in the region and can increase the volume of tourists from abroad.

Martínez-Garcia & Raya (2008) in their study, *Length of Stay for Low Cost Tourism*, analysed the determinants of the length of stay of low-cost tourists and highlighted that low-cost tourists are different from traditional tourists. The study used the data collected through a survey carried out by Costa Brava Girona Board in 2005 to estimate the characteristics of travellers visiting Catalonia by means of low cost flights. The authors used econometric duration models. The authors estimated that the factors like tourist being from Ireland, Belgium or Holland and to lesser extent being from France, being over 50, having only primary education, travelling in summer and to a coastal destination, staying in camp sites, in a free accommodation or a rented property, self-employed, or being a mid or low-level employee had a significant effect on length of stay. The authors also found that income of the tourist, time restriction and prices also had an impact on the length of stay and urban destination generated shorter stays as compared to sun and sand destination.

Menezes, Vieira, & Moniz (2009) in their study, *Determinants of Length of Stay: A Parametric Survival Analysis*, analysed the factors impacting of length of stay of tourists visiting Azores (Portuguese Archipelago). In the study survival models were utilised to study effects of socio demographic and trip related characteristics of different tourists on the duration of stay. The authors utilised data of 400 respondents visiting three gateways of Azores in the summer 2003 and employed log-logistic models and Weibull models. The authors found that male tend to stay for shorter durations, German travellers stayed for many days, tourists who took charter flights had longer stays, all travel motives increased the duration of stay, and repeat visitors stayed for longer periods. However, they also revealed that education, profession, age, and being married had no impact or no clear effect on the length of stay of tourists. The study recommended that that these observable attributes should be the focused in designing marketing campaigns for tourism.
LaMondia, Snell, & Bhat (2010) in their study titled *Traveler Behavior and Values Analysis in the Context of Vacation Destination and Travel Mode Choices: A European Union Case Study*, aimed to create a joint model for vacation destination choice and mode of travel choice, for a large-scale tourism market of multiple origins and destinations and estimate the determinants influencing these two travel choices. The authors used the data from Eurobarometer October-November 1997, consisting of 2,298 individual holiday trips to the six most-visited countries of European Union: Germany, Greece, Spain, France, Italy, and the United Kingdom. The authors utilized multinomial logit model. The authors found that besides conventional determinants like personal characteristics, destination characteristics and trip characteristics, the travel choices were also influenced by holiday travel preferences and perceptions (travel planning, general criteria for choosing a holiday destination, products generally bought on vacation, and kinds of places generally visited on holiday). The authors found the important effects of nationality (individuals are likely to travel within their own country even after controlling for distance effects), traveller demographics, travel companionship arrangement, traveller preferences and perceptions, and trip/destination characteristics on holiday destination and travel mode choice. The authors recommended number of policies for marketing campaigns, modes of travel, destinations etc. The authors also stressed that time-to-time efforts should be made to collect more comprehensive information on individual tourists for better policies.

Wang & Davidson (2010) in their study, *A Review of Micro-Analyses of Tourist Expenditure*, reviewed twenty-seven micro economic studies on tourist expenditure. The study highlighted that there is a lack of work on micro economic analyses of tourism as compared to the macro economic analyses. The authors found that sample size in the reviewed studies ranged from 162 to 5000 observations, but in most studies, it was less than 1500. The data in all the reviewed studies was collected either by research teams set up for the specific purpose or some authorities for other purposes. The authors found that seventeen of these studies used multiple regression models, four used logistic regression and only two studies used simultaneous equation models to study tourist expenditure and other tourist decisions. The authors highlighted that some of the studies also employed Tobit regression, structural equation modelling, and path analysis. Furthermore, the authors also emphasised that most of the work was confined to few developed destinations like USA, UK, Canada, Spain, Norway, Finland, Australia, and Singapore. In the review, authors also pointed out that dependent variables in these studies included expenditure per person per
day, total travel expenditure, total party expenditure, party expenditure per day, pre-paid expenditure in the origin country, and expenditure in the destination and very few studies utilised more than one dependent variable for the analysis. The independent variables in these studies were largely categorised into economic, socio-demographic, psychological, and trip related characteristics influencing trips’ expenditure. As per their findings, economic variables largely consisted of income and price. The authors found that the significant socio-demographic variables were age, gender, education, occupation, marital status, place of residence, and nationality etc and the trip related variables included length of stay, nature of travel party and size, first/repeat visitors. The authors also stressed that the studies also included destination related and psychological factors and these were intangible and more internal to the travellers, but these factors did have an effect on the travel choices and expenditures. The authors recommended that micro-analyses of tourism expenditure from time to time can bring to the fore new facets of tourism and can assist in making pro-tourism policies.

Marcussen (2011) in his study, *Determinants of Spending by Danish Travellers*, pursued to identify the socio-demographic and trip related determinants of traveller spending. The author utilised the data from survey of 6500 Danish overnight travellers at mostly commercial accommodations in Denmark or abroad. The author studied the determinants by employing linear multiple regression analysis. In the study author undertook four dependent variables i.e. spending per person per night, spending per travel party per night, spending per person per trip and spending per travel party per trip and therefore the study included four regression analyses. The author had fourteen independent socio-economics, trip related and traveller’s characteristics like - purpose of travel, distance, length of stay, size of the party, packaging, mode of transport, type of accommodation, age group, and season. Gender was not found significant in any of the four models by the author and all other variables were significantly impacting expenditure. The authors further highlighted that business vs. leisure and domestic vs. international were two most relevant segmentation criteria.

Marcussen (2011b) in his study, *Determinants of Tourist Spending-in Cross Section Studies and at Danish Destinations*, firstly, did a meta-analysis review of around fifty tourism studies published during the period 1995 to 2009. Based upon this meta-analysis, the author prosed a conceptual model of determinants of tourist spending and highlighted that tourism demand and spending was a function of income, prices, and tastes. The author further emphasised that factors affecting tourism spending are usually divided into socio-
demographic characteristics and trip related characteristics and suggested that former was related to largely income and latter to prices and tastes. The author then used data of 11000 leisure visitors staying at commercial accommodations in Denmark and employed multiple regression analysis. The author brings to the fore that the factors like accommodation, length of stay, travel party, destination, travel distance, origin market, purpose of travel, mode of transport, activities, age groups, packaging, income, purchase channel, information sources, gender, first time vs repeat visitors, motives, and season significantly impact the tourist spending. The author recommended that these factors are crucial in explaining the variation in tourists spending.

Marcussen (2011c) in his study, *Understanding Destination Choices of German Travelers*, aimed to understand the destination choices of the German travellers, to uncover significant characteristics of main destinations from the point of view of German travellers and to consider methodological implication for destination marketing and management. The author used data from the German portion of a survey called DATELINE (Design and Application of a Travel Survey for Long Distance Trips Based on an International Network of Expertise) and data set included 37500 domestic and international long journeys. In this study three techniques of analyses namely; simple t-tests, multiple linear regression, and binomial logistic regression were employed by the researcher. The author found that duration of stay, temperature difference, coastline at the destination, mode of transport, travel distance, relative prices, travel party, origin region, and number of destinations visited were the most significant factor impacting the destination choice. The author recommended that destination marketing should be done by market segmentation, destination image, and destination positioning.

Saayman & Saayman (2011) in their study, *Socio-demographic and Behavioural Determinants of Visitor Spending at the Kruger National Park in South Africa*, aimed to estimate the impact of socio-demographic, psychological factors (effecting behaviour) influencing the visitor spending in Kruger National Park, South Africa. A sample of 2904 subject from 2001 to 2007 was used in this analysis. The authors employed cross-sectional regression analysis and pseudo panel data analysis. Stepwise least squares regression method was used by authors to include only important variables from the large number of variables. The authors found that out of all socio-demographic indicators, age and language had significant impact on spending. The researchers also found that behavioural indicators-number of people travelling together had also significant impact on spending and
motivational factors also influenced spending. The authors also emphasised that behavioural factors had the highest impact as they were more consistent over the years. The authors recommended that marketing strategy, focus on the richer region of the country, development of existing infrastructure at the park can enhance the tourist spending on the park.

Sultan & Khan (2011) in their study titled *Analyzing the Microeconomic Determinants of Travel Frequency Using the Com-Poisson Regression Model*, analysed the factors influencing the travel behaviour of the residents of the small island of Mauritius. In their work authors aimed at exploring the travel behaviour through the travel frequency of the residents. The primary data of their research was collected from 1000 respondents of Mauritius. The explanatory variables were categorized into three types namely, (i) spatial dimension (ii) the socio-economic dimension (iii) the personality dimension by the researchers and as the title of the study suggests the authors employed com-poission regression models. The results of the study indicate that age, gender, income, mode of transport, number of children, and qualification level had an influence on the travel frequency. The researchers further estimated that age and number of children had a negative impact on the travel frequency whereas the others influenced positively. The authors recommended that transport policies concentrating on travel frequency should be considered while formulating planning policies, which currently focus only on the activity approach.

Baikgaki & Daw (2013) in their study *The Determinants of Domestic Air Passenger Demand in the Republic of South Africa*, explored the patterns and determinants of the domestic air travel demand in South Africa from 1971-2012. The authors utilised the secondary data collected from three main provinces of Gauteng, Eastern Cape, and KwaZulu-Natal of South Africa from ACSA (Airport company of South Africa). The authors employed multiple regression method to develop models of air travel demand and the explanatory variables were income, airfares, population, GDP, consumption, expenditure, crude oil prices, and employment status. The authors estimated that these variables cause multicollinearity and therefore stepwise regression was applied using different combinations of the explanatory variables. The authors observed that explanatory variables truly affecting the domestic air travel demand were population, crude oil prices, household consumption, and airfares and out of these aforesaid mentioned variables, airfares had a negative while the other four had a positive effect on the domestic air travel demand in South Africa. The authors recommended that the airlines, airports, civil aviation
authorities, department of transport, and other stakeholders can formulate their policies accordingly.

Can (2013) in his doctoral thesis *Modelling Tourism Demand, Travel Mode Choice and Destination Loyalty*, explored three aspects of tourism demand, firstly, economic and non-economic factors influencing domestic tourist flow to Khanh Hoa province in the long-term and short-term. Secondly, characteristics of domestic tourists and the attributes of travel modes influencing choice of travel mode to Nha Trang, Khanh Hoa. Thirdly, to investigate how satisfaction and switching barriers influence destination loyalty. For the first objective researcher used general-to-specific approach, for the second objective multinomial probit model, and for third objective employed structural equation modelling. The secondary data for the research was acquired from the annually published Statistical handbook of Khanh Hoa province (2002-2011), Ho Chi Min stock exchange and General Statistics office of Vietnam. The researcher also undertook a primary survey for second and third objective in the Nha Trang city in March 2011 and November 2012, respectively. The author estimated that tourism demand was not only influenced by economic factors (like income and price) but also by non-economic factors (like weather and climate). The author also estimated that both characteristics of domestic tourists and the attributes of travel mode influence the travel mode choice. The author further established that destination loyalty was more determined by switching barriers and inhibitors than destination satisfaction itself. The author recommended managerial, marketing, and pricing policy to increase the tourism demand and also to improve the destination loyalty.

Wynen (2013) in his study, *An Estimation of the Determinants of Same day Visit Expenditures in Belgium*, examined the determinants of tourist expenditure of same day visits. The author defined same day visit as a visit that was performed not more than 20 km away from home and duration of visit was minimum 4 hours (including travel time), and visit was not to any friends, relatives, business trips or at holiday address. The secondary data for the research was collected by a tourism organization of Belgium on weekly basis over a period of July to December 2010. The author employed Tobit model and two-step Probit model and author observed that results of both the models were quite similar. The authors estimated that time and group size had a concave (inverted U shape) relationship and age had a convex (U-shaped) relationship with probability and propensity to spend. The researcher further estimated that education had a negative relationship and information about the destination had positive relationship with spending. The author also observed that
relaxing motive also lead to increase in probability and propensity to spend on a same day visit. The author recommended that to study the determinants of expenditure on tourism panel data can be highly advantageous.

Guillet, Lee, Law, & Leung (2011) in their study titled *Factors Affecting Outbound Tourists' Destination Choice: The Case of Hong Kong*, studied the trip characteristics, travel motivations and socio-demographic characteristics affecting the outbound tourist destination choices of Hong Kong residents. In the study the authors utilised different and an innovative dependent variable i.e. distance travelled from origin city to the main destination city. The authors collected primary data by phone survey over a period of 6 years from 2005 to 2010 with respondents of at least 18 years of age. The authors used three types of independent variables namely; socio-demographic characteristics (like respondent’s age, education level, gender, household size, and household income), trip characteristics (like expenditure during the trip, mode of travel, length of stay, and size of travel party) and travel motivations (like including to spend time with family and friends; to meet different people; to rest and relax; to get away from daily routine, and to discover new places and/or things). Using multiple regression, the authors estimated that the length of stay, trip expenditure, age groups, and travel party size had the most significant influence on destination choice. The authors further observed that trip characteristics were more influential on the destination choice as compared to travel motivations and socio-demographic characteristics. The author also highlighted that older population was more likely to travel as compared to the younger population. The authors recommended that destination management organizations and travel agents should design shorter trip packages for travellers travelling nearby destinations and longer trip packages for travellers travelling to faraway places.

Bédiová & Ryglová (2015) in their study *The Main Factors Influencing the Destination Choice, Satisfaction and the Loyalty of Ski Resorts Customers in the Context of Different Research Approaches* analysed the factors utilised in various methods and approaches to determine the destination choice, satisfaction and the loyalty of ski resorts customers. The authors highlight that the customer satisfaction was measured by multi-attribute models by different researchers. Five studies on the matter were compared and analysed by the authors. In the first reviewed study, means-end analytic approach was utilised and cluster analysis highlighted that variety of the hills and trails, snow conditions, social atmosphere, time and money savings, resort services, local culture and familiarity impacted travel choice. In the second reviewed study service quality at tourist destinations is measured and importance-
performance analysis was conducted. The study estimated that accommodation, ski shops, ski slopes, ski slope services, and tour operator services impact the destination choice, satisfaction and loyalty. In the third reviewed study, the authors explored choice and switching behaviour between Scottish ski centres by utilising conjoint analyses. The authors found that snow cover, type of ski slopes, availability of accommodation, travel distance and expenditure per day influence the destination choice. In the fourth reviewed study, the authors explored the relative importance of factors impacting regional ski destination with conjoint analysis. The authors assessed that snow condition, travel time, expected daily expense, trail variety, and variety of amenities influence destination choice, satisfaction and loyalty. In the fifth and last reviewed study, attributes of ski destination choice were explored utilised an exploratory factor analysis and confirmatory factor analysis. The authors estimated that downhill skiing services, cross-country skiing services, restaurants, social life, and spa services influence destination choice, satisfaction and loyalty.

Marrocu, Paci, & Zara (2015) in their study Micro-economic Determinants of Tourist Expenditure: A Quantile Regression Approach examined the determinants influencing the spending of tourists of Sardinia. The authors utilised the primary data of 1445 persons collected during April to October 2012. In the study the authors employed linear regression models and quantile regression models and dependent variable was expenditure per person. The authors categorised the explanatory variables into 4 broad categories namely; economic constraints, socio-economic characteristics, trip related characteristics, and psychographic characteristics. The authors estimated that income just like other studies had a positive relation with expenditure and in case of socio-economic factors-gender, age, and education were insignificant. The authors further estimated that the employed people spent more than students and unemployed people. Among the trip –related characteristics, the researchers estimated that size of the group and number of days spent significantly reduce the daily per person expenditure and accommodation costs tend to increase if the tourists choose lodging typologies. The authors also analysed that repeat visitors tended to spend more than first timers. The authors recommended that tourism was highly complex product as it was affected not only by the explanatory variables but also by the level of spending.

Mawioo & Kagiri (2015) in their study called, Strategic Factors Influencing the Destination Choice for Domestic Tourists in Kenya explored the strategic factors affecting the domestic tourism of Kenya. The authors explored the effect of community-based tourism, effect of infrastructure development, effect of safety and security, effect of price of a tour package
influences the destination choice for domestic tourists in Kenya. The authors collected primary data of 105 travellers and was analysed using multiple linear regression. The authors estimated that the influence of community-based tourism on the destination choice was prioritized by 73.7 per cent. The authors also estimated that 54.9 per cent felt developed infrastructure affected the destination choice and 59.2 per cent said that safety and security impacted the destination choice. Researchers also found that 68.4 per cent of persons experienced that pricing of tour packages influence the destination choice decision. The authors recommended that the government and other agents in the tourism market should inculcate these four influences into consideration while formulation of policies and market strategies.

Moeckel, Fussell, & Donnelly (2015) in their study titled *Mode of Choice Modelling for Long-Distance travel*, aimed at presenting a new approach to analysing long-distance travel mode choices as compared to conventional multinomial logit model. This data secondary data from the National Household Travel Survey (2002) of 45,165 trips of long distances of United States was utilised by authors. The researchers employed nested multinomial logit model or $R^3$ Logit model and split model, handling auto-level choices and transit-level choices. Auto model had four alternatives, namely, drive-alone, shared-2, shared-3 and shared-4 and transit model had three alternatives, namely, bus, rail and air and coefficients used in $R^3$ were heuristically derived rather than being estimated by researchers. The authors estimated that $R^3$ logit was sensitive to travel costs, distance, transit-station accessibility, service frequency, number of transfers, and parking costs. The authors further analysed that increased gasoline prices and improved bus service also impacts the mode of choice. The authors highlighted that these models were meant to contribute to analysing scenarios that affect the mode share for long-distance travel. The authors recommended improvements to enhance the capabilities of the model and suggested that since building long-distance travel infrastructure was a substantial process, it required a careful analysis before implementation.

Valek (2015) in the study *Tourism expenditure according to mode of transportation: A comparative study between 2009 and 2012*, explored the changing travel expenditure patterns of Slovenia, by comparing the travel mode and accommodation expenditure trends of 2009 (financial crisis) and 2012 (upturn). The main aim was to examine a tourist’s moving patterns, by observing the change in patterns of accommodation booking in the years 2009 & 2012 and by observing whether tourists travelling by different modes had different expenditures. The secondary data was acquired by researchers from the state tourism survey.
containing information from a sample of 497,466 foreign tourists who visited Slovenia in 2009 and 639,756 who visited in 2012. The authors employed analysis of variance to explore the differences between mean expenditure 2009 and 2012. The author estimated that a dramatic increase in transportation expenditure was observed between 2009 and 2012 and reasons observed were the increased fuel prices and implementation of the vignette tolling system on the Slovenian highways in 2009. Secondly, the author analysed that the general tourism expenditure on accommodation saw a down low, leaving aside the bookings made and paid through agencies by the tourists travelling via plane. The author highlighted that using different travel modes, tourists incur different expenditure on the total travel expenditure over time and thus deserve considerable importance in the field of travel research.

Losada, Alén, Domínguez, & Nicolau (2016) in their study, *Travel Frequency of Senior Tourists*, aimed to explore the determinants of the travel frequency of the senior citizens of Spain. The primary data was collected through a survey of 358 senior residents from March to May 2012 and negative binomial model was used by authors. The author used explanatory variables namely; socio-demographic variables (age, gender, household and employment status), and self-perceived factors (health, economic status and time available). The authors found that factors influencing the travel participation were not the same determining the travel frequency and neither did they behave in the same manner. The authors estimated that women tend to travel more frequently than men did and travel frequency was positively related to self-perceived economic status and negatively to self-perceived time available. The authors recommended that tourism policies should aim at capturing women travellers, since they had a greater life expectancy as compared to men and better economic status than before in Spain. The authors further recommended that operators should provide shorter and flexible packages so that seniors with less available time can travel more often.

Jannit & Aeka (2016) in their study titled *An Important Factors Influencing the Decision of International Tourists to Travel in Thailand*, explored the factors influencing the decision to travel in Thailand. The primary data was collected by authors in Bangkok during the first quarter of 2016. The authors analysed destination loyalty indicators and level of importance. The destination loyalty indicators revealed that the respondents rated the ability to recommend others to visit Thailand as the number one indicator of loyalty, followed by the ability to say positive things about Thailand. In level of importance, ten different factors
influencing the decision to revisit Thailand were ranked by the respondents. The authors estimated that three most important factors were safe place to stay, friendly people and clean food impacting travelling and least important factors were convenient transportation, clean country, and child friendly. The authors highlighted that these findings can be utilised to make more specific tourism marketing strategies and recommended that more in-depths studies are required to study this complex phenomenon of tourism.

Nair & Ramachandran (2016) in their study titled *Determinants of Domestic Tourism Growth in India*, analysed the determinants responsible for tourism growth at a destination in India. The study aimed at exploring three factors influencing the destination choice for sustainable growth of domestic tourism in India, namely, climate at the destination, prices and marketing of the destination. The primary data from 281 respondents from South India was by authors and regression analysis was employed. The authors observed that in order to promote a tourism destination, the image and marketing of the destination should be improved. Authors also observed that image of a destination could be improved by cashing its cultural, heritage or otherwise commercial side. The authors recommended that an increase in competition in the destination marketing along with innovative product prices would lead to tourism growth in a destination and by introducing affordable packages would also make destinations more attractive to tourists.

Falk & Katz-Gerro (2017) in their study titled *Modeling Travel Decisions: Urban Explorations, Cultural Immersion, Or Both?* explored the characteristics of city trip and culture trip as choice of travel. The authors used secondary information of 28,700 individuals from 32 European countries during “preferences of Europeans towards tourism” survey conducted in early 2014. The authors utilised bivariate probit models and explanatory variables used in the model consisted gender, age, occupation, country, and residential population size. The authors found that error terms in the two equations (i.e. of city and culture trip) were correlated indicating that culture motivated trips and city trips go hand-in-hand. The authors further observed that decision to select a city and cultural destination differed widely across socio-economic and demographic characteristics, size of the residential population, and country of residence. The author estimated that people with skilled occupations, students, pensioners, women, people living in cities and regions with high GDP had higher joint probability of choosing city and cultural trips and age was not a significant determinant in the travel choice except for retired individuals. The authors also highlighted that cross-country differences in undertaking city trips and cultural visits also
existed where western European countries had highest probability whereas south and southeast European countries had the lowest probability.

Jahanshahi, Daly, Patruni, & Rohr, 2017) in their study titled How Can We Model Travel Frequency? A Critical Review of Current Practice, made a critical analysis of travel models used for estimating travel frequency and suggested a model that accounted for the high number of zeros in the dataset on travel frequency. The study analysed that two major problems faced in examining travel frequency dataset were, firstly the data consisted of high number of zeros, which lead to difficulty in using simple linear regression or poisson regression and thus a more appropriate technique was required for travel frequency analysis. Secondly, the variables estimated as the determinants of travel frequency were not always consistent or reliable for forecasting. The paper aimed at producing an all-inclusive technique of travel frequency analysis by examining a large data set of 300,000 individuals taking 70,000 rail trips over a period of 18 years from 1995 to 2015. The data was acquired from GB Travel National Survey Data by the authors. In the study a comparison between hurdle type count models(stop-go) and zero-inflated count models is also done by authors. The authors estimated that socio-economic factors like personal income, occupation, age, and year influence the travel frequency. The authors compared the results of hurdle type count models and zero-inflated count models and recommended that zero-inflated count models provided more accurate variables for future forecasting.

Jing, Zhao, He, & Chen (2018) in their study titled Travel Mode and Travel Route Choice Behaviour Based on Random Regret Minimization: A Systematic Review, aimed to extensively review the literature on travel route choice and travel mode choice based on regret theory. The studies reviewed in this paper were from seven databases, namely ScienceDirect, Web of Science, Academic Search Complete, Pub Med, TRID, Eric, Cambridge Journals Online, for application of regret model to travel mode choice and travel route choice behaviour in March 2017. This paper makes an extensive review of sixteen empirical studies on travel mode and travel route choice behaviour from four main aspects, that were, (i) empirical issues: understanding current situation of travel mode and travel route choice (ii)influencing factors: understanding traveller attributes and alternative specific to estimate factors influencing travel mode and travel route choice, for travel forecasts, (iii)theory utilization: utilizing theories with different variables and parameters for developing a research basis, (iv)application of mathematical methods: for accurate analysis and rigorous results. After reviewing the sixteen studies, authors found that no single study
fulfilled all the four points and thus there was room for improvement. The authors also compared RUM with RRM and found that RRM had few advantages over RUM. Therefore, the authors recommended that RRM could serve better for analysing travel mode and route choice in the future.

3. Research Gaps, Objectives, Hypotheses and Research methodology

3.1 Research Gaps

On the basis of above review of literature, the forthcoming research gaps in the literature are identified:

- Temporal and spatial pattern of changing nature of domestic and international tourists is not much available in Indian context.
- There is dearth of empirical research in the field of tourism using household level data (micro-level data) especially in India. Empirical studies at aggregate level or macroeconomic analysis has been more focused upon by the researchers in India than the microeconomic analysis.
- Studies have focused largely on individual response data, collected through person to person questionnaire instead of collective household response data.
- Information on socio-economic profile of people opting for domestic or international tourism is not widely available.
- Information on various social, economic, and cultural determinants of various dimensions of tourism (like tourism expenditure, frequency of travel, duration of stay etc) has skipped the attention of researchers.
- The previous studies, if focused at all, mainly focused on the socio-economic characteristics of the households in India.
- The dataset for most studies on tourism have been small and limited to a city or region especially in case of developing world, perhaps due to the difficulty in acquiring such intensive data.
- A lot of travel choice studies performed so far have focused on forming better transport policies to avoid traffic congestion rather than formulating and facilitating tourism policies for creating better tourism markets, especially in India.

There is urgent need to bridge these gaps in the empirical literature for better understanding of nature and determinants of various aspects of tourism. However, due to time and resource
constraints, it is not feasible to include all the issues in an empirical exercise like present one. Nevertheless, the present study is a modest attempt to bridge the gap on some important issues. More specifically, the main objectives and proposed hypotheses are detailed in forthcoming sections.

3.2 Objectives

1. To study the nature of domestic tourism across various geographical regions and socio-economic groups in India.
2. To identify the determinants of decision to travel by Indians households.
3. To identify the factors that impact the travel expenditure, travel frequency, choice of destination, and choice of travel mode.

3.3 Hypotheses

1. Nature of domestic tourism innately related with socio-economic characteristics of households across India.
2. Socio-economic characteristics and trip related characteristics impact the decision to travel.
3. Socio-economic characteristics, trip related characteristics and attributes of destinations impact the travel expenditure, travel frequency, choice of destination, and choice of travel mode.

3.4 Data

The present study is based on household level information collected by the National Sample Survey Organisation (NSSO) during its 72th round on domestic tourism from 1st July 2014-30th June 2015. During the survey, detailed information on the choice of tourist destinations, mode of travel, expenditure on travelling and other related aspects, frequency of travel and duration of stay, etc. was collected from all over India by using multi-stage random sampling. Besides this information on travel, additional information on various household characteristics like occupation, caste, religion, size, etc. was also collected by NSSO. Information was also collected regarding age, gender, education and employment status of all family members of the sampled households. In this round information from 1,39,688 households and 6,45,852 individuals has been collected. In this round, three types of trips’ information were collected in detail. These were, a) Overnight trips completed during last 365 days from the date of survey. The leading purpose of this type of trips were
‘holidaying, leisure and recreation’, ‘health & medical’ and ‘shopping’. In the 139,688 households across India, 71899 overnight trips’ information was collected by NSSO. b) Overnight trips completed during last 30 days from the date of survey. The leading purpose of this type of trips were ‘business’, ‘social’, ‘religious & pilgrimage’, ‘education & training’ and others. In the 139,688 households across India, 189760 overnight trips’ information was collected by NSSO. As per NSSO, overnight trip refers to a travelling of household individual(s) for a duration of not less than twelve hours in two consecutive calendar days and of not more than 6 months outside his (their) usual environment. c) Same day trips completed in the last 30 days. As per NSSO, a domestic same-day trip defined as that trip which does not involve an overnight stay. In the 139,688 households across India, information on 103298 same day trips completed in the last 30 days was collected by NSSO. Keeping in mind, time, resources, and scope of the present study, the information collected on 71899 overnight trips performed during the last 365 days has been utilized for the present research.

3.5 Methodology

According to Eugenio-Martin (2003), to examine tourism demand, usually two points of view are considered. On the one hand, number of tourists that are expected to arrive to a particular destination is forecasted. On the other hand, tourist destination choice of the households of a particular region or country is studied. Households need to make multiple decisions before deciding where to travel. While for some people these decisions are perfectly planned, for other people these are improvised or hardly planned. Moreover, some people can decide all of them simultaneously or in different stages. For modelling purposes, it is assumed that tourists choose final destination into sub-stages. In this sense, there are five stages of tourism demand: participation decision; tourism budget decision; frequency and length of stay decisions; kind of destination decision; and mode of transportation choice. This methodology is a general framework applicable for a country, a region or a small town or village. Obviously, the larger the region analysed is, the more heterogeneity in data. In order to apply this kind of methodology two different types of datasets are required. On one hand, micro data on socioeconomic and demographic characteristics of a sample of population is required. This dataset usually include data on tourism trips, as for instance, places visited, number of trips, length of stay or expenditure on tourism. On the other hand, data on the attributes of destinations is required. It usually includes variables such as price indexes at destinations, development level or temperature at destination of
As discussed above, NSSO has collected detailed information on trip and traveller’s characteristics but it has not collected information on attributes of destinations. Therefore, present analysis relies largely on socioeconomic and demographic characteristics of households and individuals, trip’s characteristics, and traveller’s characteristics of sampled population across India. However, the decision to travel, travel frequency, choice of destination, mode of travel, and trip expenditure may be overlapping and inter-linked concepts but these are studied separately using different techniques and tools in the present study. The methodology to study these overlapping issues has been presented in detail in the forthcoming chapters, however, a brief synoptic view of these issues and tools to study is presented in the Graph 2.1.

**Graph 2.1: A brief synoptic view of the issues related to travelling and tools of study**

- **Decision to travel**
  1. Binary Choice models.
  2. Multinomial Choice models
- **Travel Frequency**
  1. Hurdle type Count Models.
  2. Zero-inflated Count models
- **Choice of Destination**
  1. Binary Choice models.
  2. Multinomial Choice models
- **Mode of Travelling**
  1. Binary Choice models.
  2. Multinomial Choice models
- **Travel Expenditure**
  1. Multiple Regression
  2. Tobit regression

Source: Synthesised from various studies mentioned in the review of literature above

### 3.6 Limitations of the study

Although an attempt has been made to study the domestic tourism in India in comprehensive manner in the present study, however, the study has forthcoming limitations:

1. The domestic tourism is analysed using data of overnight trips in the last 365 days. Although the data of overnight trips in the last 30 days and same day trips has been collected by NSSO but it has not been utilised to study the domestic tourism in India.
2. The travel frequency and length of stay at a destination can have bi-directional relationship. However, for simplicity in the present analysis, it is assumed that in each overnight trip the households’ stay is for optimal length and this allowed to focus solely on frequency patterns in the present research.

3. The review of literature suggests that destination’s attributes like mountains/hilly region, coastal area, beauty, and infrastructure also impact the choice of destination but this kind of data has not been collected by NSSO and cannot be utilised in the present research.

4. Mode of travelling are divided into ten groups namely: On foot, bus, train (railways), ship/boat, air, own motorised transport, own non-motorised transport, rental/hired motorised transport, rental/hired non-motorised transport, and others. As travellers can choose multiple mode of travel for the same trip, NSSO has differentiated between the major mode of travel and minor mode of travel. For the present research, the focus of the researcher has been major mode of travel. Moreover, in a single category like own motorised transport can include inexpensive two-wheeler or can include very expensive car. However, these things are ignored in the present analysis and therefore, the results should be understood by the readers carefully.

3.7. Organisation of the thesis

The present study has been organised in the following chapters:

Chapter 1: Introduction: In this chapter motivation and conceptual framework of the study have been presented.

Chapter 2: Review of literature: Review of selected empirical studies on tourism, on factors influencing travel behaviour, travel frequency, travel expenditure has been presented in this chapter. The research gaps, objectives, hypotheses, data and methodology, and limitations of the study have been presented in the chapter.

Chapter 3: Socio-economic profile and decision to travel in India: The socio-economic profile of the samples households and proportion of travellers across various socio-economic characteristics have been presented in this chapter.
Chapter 4: Determinants of households’ decision to travel in India: Different factors influencing the decision of households to travel within India are explored in this chapter.

Chapter 5: Travel frequency of overnight trips in India: Nature and its determinants: Nature of travel frequency of the households for overnight trips and its determinants are analysed in the chapter.

Chapter 6: Choice of destination of overnight trips in India: Nature and its determinants: Nature and determinants of choice of destination like within district, within state, or outside the states or travelling within country for international trips has been studied in this chapter.

Chapter 7: Choice of mode of travel for overnight trips in India: Nature and its determinants: The chapter deals with choices of mode of travel and factors influencing the choice of a particular mode of travel for tourism in India.

Chapter 8: Travel expenditure for overnight trips in India: Nature and its determinants: Determinants of travel expenditure for overnight trips are explored in this chapter.

Chapter 9: Summary and policy suggestions: Main findings of the study and policy suggestions emerging from the analysis are given in this chapter.