CHAPTER III
RESEARCH METHODOLOGY

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This chapter explains the methods and techniques adopted by the researcher to achieve the research objectives. The chapter presents the discussion of research questions and objectives that have laid the foundation of the conceptual model developed to identify the research parameters and address the knowledge gaps identified by the researcher. The discussion starts with objectives, and hypotheses, and then moves on to the research design, survey instrument construction, data collection method and process. Hypotheses are generated logically for the purpose of empirical validation. A brief discussion of the methods for testing the proposed model, as well as the statistical techniques used for data analysis, is provided.

To achieve the primary and secondary objectives of the study, a theoretical model was developed based on the shreds of evidence of relationships established in the literature. The model developed in this study is comprehensive which is not much research in the tourism context. In the context of tourism, limited literature that deals with decision- making on the intention to travel exists to date. It is also noteworthy that this study is the first of its kind in the Coimbatore district. The model constructed had six independent eWOM variables grouped into three constructs, namely –'eWOM Quality' and 'eWOM Quantity', grouped under 'Message Characteristics'; 'Source Credibility' and 'Homophily', grouped under 'Source Characteristics'; and 'Searchers' Intent' and 'Level of Involvement', grouped under 'Searchers' Characteristics'. The mediating variables, namely 'Perceived Usefulness', 'Attitude' and 'Trust', mediate the association between the independent variables and the dependent variable, 'Intention to Travel'. The 'Internet Usage Skills' was used as the control variable to test the robustness of the model in high and low Internet usage skill scenarios. The researcher adopted a descriptive research design and developed a structured questionnaire covering all the variables and dimensions of the research. To validate the scales, Confirmatory Factor Analysis was used. A stratified random sampling approach was adopted for data collection based on the age group of the respondents. 833 respondents who completed the survey served as the sample for the study. The conceptual model was put to the test using the empirical data. Cronbach's Alpha was used to determine the scales' reliability. Mean and measures

of dispersion were determined and inferences were derived. For testing the research model, structural equation modelling was employed using IBM AMOS. Regression and correlation analyses were performed to test the significance of causal relationships and associations between the variables. Anova (one-way) with Tukey's HSD and T- Test was also employed to measure the differences among various consumer cohorts with regard to specific demographic variables.

3.1 Generation of Research Questions

To address the research gaps identified in the literature and answer the assumptions in the theoretical model, the following research questions have been proposed for the purpose of the present study:

- What is the impact of electronic Word of Mouth (eWOM) on international tours and travel-related decision- making of the respondents from the study region?
- What is the rate of eWOM adoption in travel- related decision- making among the respondents?
- How will you compare the influence of eWOM on the intention to travel among various consumer cohorts from the study region?

3.2 Objectives of the Study:

The primary objective of the study is to analyse the impact of eWOM on international tours and travel-related decision- making, with special reference to the Coimbatore city.

To achieve this objective, the following secondary objectives have been framed:

- ➢ To study the impact of eWOM Characteristics (Source, Message and Searcher's Characteristics) on its Perceived Usefulness
- ➢ To analyze the influence of eWOM's Perceived Usefulness on Consumers' Attitudes and Trust towards eWOM
- ➢ To analyze the influence of Consumers' Attitudes and Trust towards eWOM on the Intention to Travel

> ➢   To analyze the mediating impact of consumers' Perceived Usefulness of eWOM, Attitude and Trust on the relationship between the independent variables and the Intention to Travel

> ➢   To analyze the influence of Consumers' Internet Usage Skills on eWOM adoption.

> ➢   To compare various consumer cohorts on their Perceived Usefulness, Attitude and Trust towards eWOM

3.3 Generation of Research Hypotheses

The research questions, proposed hypothesised model and study objectives provide a broad explanation of the possible relationships between the important constructs identified in the study. Theoretical pieces of evidence are sought to confirm these relationships, based on which the hypothetical relationships have been developed in a cause-effect manner. Some variables have been identified from the literature, and hypotheses have been developed for each of them individually to test the significance of relationships in the context of the present study. Based on the literature, research gaps identified, the conceptual model framed and the objectives of the research, the following 13 hypotheses were developed for the current study. Because the review of the literature revealed a clear relationship between the variables of the study, no statements have been proposed as null hypotheses.

3.3.1. Relationship between Message Characteristics and Perceived Usefulness

This hypothesis is framed to test the influence of message characteristics of eWOM on its perceived usefulness. eWOM quality is found to be the most salient characteristic influencing consumer perception (Sussman & Siegal, 2003). The persuasiveness of the arguments embedded in information messages reflects the user's perception of its value (Bhattacherjee & Sanford, 2006). According to the Information Adoption Model, the perceived quality of information that consumers receive influences their purchasing decisions. High-quality information is perceived to be more useful (Lin & Lu, 2000). The perceived usefulness of information increases as the quality of eWOM information in social media improves (Erkan & Evans, 2016). Information quality being

influential through eWOM has shown positive relation towards information usefulness, which indirectly impacts the purchase intention (Xue et al., 2018).

Erkan and Evans (2016)investigated the impact of eWOM in social media on consumer purchase intentions. According to the findings, the key factors for eWOM in social media that influence consumers' purchase intentions are information quality, credibility, usefulness, information needs and information attitude. Cheung et al. (2008) discovered that the dimensions of comprehensiveness and relevance have a significant impact on consumers' perceptions of the usefulness of a review. According to Chatterjee (2001), for the users who visit an online page, the number of reviews is especially important. As such, it has been proved that the number of reviews published on a website is proportional to the volume of online opinions posted on that website, which is regarded as a representative element of the product or service's popularity. According to Park et.al, (2011), the more reviews there are, the more messages users will process, resulting in a more positive tendency to return to the online store for future purchases. Hence, based on the literature review the following hypotheses are framed:

H1: The eWOM quality will have a significant positive impact on its Perceived Usefulness.

H2: The eWOM quantity will have a significant positive impact on its Perceived Usefulness.

H3: eWOM message characteristics will have a significant positive impact on its Perceived Usefulness.

3.3.2 Relationship between Source Characteristics and Perceived Usefulness

This hypothesis is chosen to test the impact of eWOM source characteristics on its perceived usefulness. The source credibility and homophily of eWOM are used to assess the source characteristics of eWOM. According to Aderonke& Charles K(2010), source credibility affects perceived usefulness and ease of use. Li (2013) found that source credibility influences cognitive and affective responses like usefulness and ease of use. Source credibility influences perceived usefulness (Chen et al., 2014). Kim et al.,(2016) discovered that customers who trusted a source felt it to be more useful when shopping online. Kim et al., (2018) proposed that homophily, tie strength and source credibility and their relationship to consumers' evaluations associated with perceived usefulness

influence eWOM effectiveness. Bachleda&Fathi (2016) suggest that personal word of mouth is usually given by the people known (i.e., friends, colleagues and family) and the information provided is more likely to be reflected in the activities of information seekers that are said to be more homophilous. Literature shows that travellers adopt eWOM due to its source characteristics and hence the hypotheses have been framed as below:

> *H4: The Source Credibility of eWOM will have a significant positive impact on its Perceived Usefulness.*
>
> *H5: The Homophily of eWOM will have a significant positive impact on its Perceived Usefulness.*
>
> *H6: The Source characteristics of eWOM will have a significant positive impact on its Perceived Usefulness.*

3.3.3. Relationship between Searchers' Characteristics and Perceived Usefulness

This hypothesis is decided to test the impact of searchers' characteristics on eWOM's perceived usefulness. The searchers' characteristics of eWOM are measured in terms of searchers' intent and level of involvement in eWOM. According to Fan & Miao (2012), involvement has a significant effect on perceived eWOM. Hussain et al.,(2020) suggested that customers' involvement in eWOM tends to place a higher value on the usefulness of the information provided. This affects consumers purchasing decisions. Literature shows evidence that the characteristics of searchers play a major role in the perception associated with eWOM's usefulness. Hence the research hypotheses have been framed as below:

> *H7: The Searchers' intent will have a significant positive impact on eWOM's Perceived Usefulness.*
>
> *H8: The level of involvement will have a significant positive impact on eWOM's Perceived Usefulness.*
>
> *H9: The searchers' characteristics will have a significant positive impact on the eWOM's Perceived Usefulness.*

3.3.4. Relationship between Perceived Usefulness and Attitude towards eWOM

This hypothesis is decided to test the impact of the perceived usefulness of eWOM on the attitude of the travellers towards the eWOM. Vermeulen &Seegers (2009) conducted an experimental study with 168 participants to determine the impact of online reviews on the attitudes of travellers towards hotels and revealed that exposure to online reviews enhanced hotel awareness, and that positive reviews improved the attitudes of travellers toward hotels. Previous research has shown that online travel reviews can influence travellers' decisions. The most important aspect in creating and preparing a foundation for consumer behaviour is consumer attitude. The researchers have studied this aspect of behaviour from various perspectives. Many have concentrated on its powerful and complex content, while others have investigated its certainty (Lemanski & Lee, 2012). The attitude towards the eWOM is formed by the travellers, and hence the research hypothesis has been framed below:

H10: Perceived Usefulness will have a significant positive impact on Attitude towards eWOM.

3.3.5. Relationship between Perceived Usefulness and Trust towards eWOM

The hypothesis is framed to test travellers' trust in eWOM based on the perceived usefulness of eWOM. The trust of tourists in eWOM refers to the extent to which eWOM recipients believe that other peoples' recommendation and information is credible and true. According to Kamtarin (2012), consumers tend to believe that eWOM sources will be helpful to them and they do not intend to exploit their situation. Ladhari & Michaud (2015) discovered that positive feedback can increase the level of trust that consumers have towards a hotel. Travellers who read hotel reviews have more trust in the hotel if the reviews are positive. Hence the research hypothesis has been framed below:

H11: The perceived usefulness of eWOM will have a significant positive impact on the trust towards eWOM.

3.3.6. Relationship between Attitude and Intention to Travel

The hypothesis is framed to test the impact of attitude towards eWOM on intention to travel. Ajzen (2001) asserts that the stronger the intention to engage in the behaviour, the more desirable the attitude toward the behaviour. There is a positive relationship between attitude and intention. Jalilvand et al.,(2012) found that destination image and tourist attitude have a significant relationship with travel intention. Hence from the literature review, the hypothesis is framed as:

H12: The attitude towards eWOM will have a significant positive impact on the intention to travel.

3.3.7. Relationship between Trust and Intention to Travel

To test the impact of trust in eWOM on the intention to travel, the following hypothesis has been formulated. According to Palvia(2009), trust influences purchase intentions, which in turn influences actual purchase behaviour and loyalty. An empirical study conducted by Ho and Chien (2010) with 471 Taiwanese respondents found that trust in the message has a positive effect on purchase intention. Roca et al., (2009)found that there is a positive and strong relationship between perceived trust and behavioural intention. Hence from the literature review, the hypothesis is framed as:

H13: The Trust towards eWOM will have a significant positive impact on the intention to travel.

3.4 Research Design

The research design, according to Kothari (2004), is "the arrangement of conditions for data collection and analysis in such a way as to combine relevance to the research purpose with feasibility." It serves as a strategy for achieving previously established research objectives. A research design includes a clear statement of the research problem, data collection techniques, the population studied, and data processing and analysis tools and techniques.

Based on a review of the literature and discussions with academic experts, the researcher proposed a conceptual model. The developed model and hypotheses are proposed to be tested and validated through a survey. As a result, the research design is descriptive. The descriptive study collects data to describe or define a subject. These

studies not only report the frequency of observations but also attempt to quantify the patterns of relationships that exist even when variables cannot be controlled. The research design is the conceptual framework within which the research is conducted.

3.5 Data Collection

Data collection is the process of gathering information from all relevant sources to solve the research problem, test the hypothesis (if using a deductive approach), and evaluate the results. Data collection methods are classified into two types: secondary data collection methods and primary data collection methods.

3.5.1. Primary Data

The study's primary source of information is the respondents' opinions. A structured questionnaire was used to collect data from respondents. The questionnaire includes demographic as well as study-related variables. The instrument employed an appropriate scaling technique; a five-point Likert scale to elicit responses from respondents, allowing researchers to assess the instrument's validity and reliability.

The primary data was collected from a sample of 833 international tour travellers who have travelled internationally during the last 5 years before COVID-19. The data collection took place during the period from March 2020 to March 2021. Initially, the survey instrument was distributed to 1000 people. Using stratified random sampling, the sample size of respondents belonging to Gen X, Y and Z was decided and data collection was done to meet this requirement. However, during the process of scrutinizing the filled questionnaires, it was discovered that 167 data points were missing from the total pool of 1000 responses. After conducting a meticulous data-cleaning process, the researcher was able to obtain 833 valid responses as the final sample, which is twice the required sample size.

3.5.2. Secondary Data

Secondary data is information that has previously been published in books, newspapers, magazines, journals, online portals, and so on. Despite the nature of the research topic in business studies, there is an abundance of data available from these sources. As a result, using an appropriate set of criteria to select secondary data for use in

the study is critical for increasing the levels of research validity and reliability. Sec ondary data collection methods have some advantages, including the ability to save time, effort, and money. The researcher reviewed indexed journals covering the themes associated with tourism and eWOM. Highly cited works from the 1990s till 2022 have been reviewed and insights were drawn.

3.6 Survey Design

3.6.1. Questionnaire Design

The questionnaire used in this study primarily comprised close-ended questions. The survey was distributed to the participants via Google Forms. To ensure clarity and accuracy, the responses provided by participants were carefully checked and verified. The responses were coded, and the data were entered into an Excel sheet for easy export to SPSS for further analysis. The rows in the spreadsheet represented cases, while the columns represented variables. After entering the data, the variables that measured the same construct were grouped and aggregated into a new variable. The raw data were prepared for analysis through these processes.

The questionnaire was developed after a thorough review of the literature and an examination of previously published questionnaires as well as existing questionnaires used in other studies relating to the theme. The questionnaire was divided into two portions. The first part was related to the different dimensions of the conceptual model such as eWOM quantity, eWOM quality, source credibility, homophily, searchers' intent, level of involvement, perceived usefulness, attitude, trust and intention to travel. The second portion dealt with demographic factors such as age, gender and income etc. Demographic questions were designed using nominal, ordinal and interval scales. The questions about the different factors like message characteristics, source characteristics, searchers' characteristics, perceived usefulness, attitude, trust and intention to travel were formulated using a five-point Likert scale. The 5-point Likert scale of agreeableness was coded as follows: 1 - Strongly disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, and 5 - Strongly agree. Another 5-point scale was coded as 1 – Never, 2 – Rarely, 3 – Sometimes, 4 – Often, and 5 – Always.

Table 3.1 Measurements Constructs – Scale and Source

Constructs	No. of items	Measurement Scales	Source
eWOM Quantity	5	Likert's 5 point agreeableness Scale	Cheung et al.,(2008)
eWOM Quantity	4	Likert's 5 point agreeableness Scale	Park et al., (2007) Line et al., (2013)
Source Credibility	6	Likert's 5 point agreeableness Scale	Filieri(2015)
Homophily	4	Likert's 5 point agreeableness Scale	Wu (2013)
Searchers' Intent	4	Likert's 5 point agreeableness Scale	Nirmanee (2016)
Level of Involvement	4	Likert's 5 point agreeableness Scale	Gretzel(2007)
Perceived Usefulness	4	Likert's 5 point agreeableness Scale	Gefen et al., (2003)
Attitude	4	Likert's 5 point agreeableness Scale	Jalilvand et al., (2012)
Trust	3	Likert's 5 point agreeableness Scale	Wu (2013)
Internet Usage	3	Likert's 5 point agreeableness Scale	Gretzel(2007)
Intention to Travel	10	Likert's 5 point agreeableness Scale	Jalilvand & Samiei(2012),Nirmanee (2016)

Apart from the major measurement constructs discussed in Table 3.1, appropriate items and scales to collect information regarding international tour experiences, the purpose of travel, frequency of social media usage, online activities during tour planning, and travel-related online reviews during different tour planning phases, travel related decisions, formats and medium of online reviews for travel, travel planning decision-

making style, the importance of information for travel review evaluation, travel related online review evaluation were used. The second segment of the questionnaire consisted of the demographic profile of the respondents such as gender, age, highest education, occupation, family income, marital status, and family size. The responses were collected from the respondents who travelled internationally from Coimbatore.

3.6.2. Pilot Study

A pilot study has been conducted to determine the key parameters that influence eWOM in decision- making. The sample for the pilot study was taken from 30 travellers who travelled internationally and have been using social networking sites for travel-related information. The reliability of the instrument was checked using Cronbach's Alpha indicator. The questionnaire was pre-tested by sending it to 30 people who could provide constructive feedback. The final draft was prepared after which it was reviewed by management specialists. The survey was carried out among the international tour travellers of Coimbatore city. Questionnaires were given to different age groups of international tour travellers like Gen-X, Gen-Y, and Gen-Z.

The questionnaire was revised to improve clarity and reduce response bias. Specifically, the placement of the questions was modified by moving the construct "Internet Usage" to a later position in the survey. This was done because some participants found it confusing to answer this question before the main variables. To avoid confusion and response bias, the questions related to the "trust towards the eWOM" construct were asked first, followed by the "Internet Usage" construct questions.

The results of the pilot study were encouraging and revealed that the responses showed patterns that reflected the hypothesized model developed. These minor modifications were made to improve the validity and reliability of the survey instrument.

3.7 Sampling Design

A stratified random sampling technique was adopted for the study. Stratified sampling can be carried out with either a proportionate or a disproportionate allocation method. Balanced allocation entails taking into account the sampling fraction in each stratum that is proportional to the total population. A method like this ensures that each stratum of the population is represented proportionately in the sample. After determining

the proportionate size of each stratum identified in the current study, the items are decided to be chosen at random to ensure compliance with probability rules. Every item assigned in each stratum has an equal chance of being chosen for the final sample. The researcher chose probability-based stratified random sampling with the proportionate allocation as the sampling design for the current study, (Kothari, 2004).

The researcher divided the total population of international tra vellers from Coimbatore into three different strata to understand the different decision-making perspectives of three different generations of the population. This design was chosen to capture a balanced view of the relationship between various constructs in different segments, allowing for a comprehensive understanding of eWOM adoption.

3.7.1. Population

The proposed study aims to investigate international tour travellers from Coimbatore city, encompassing all past and potential international travellers as the population of interest. To gain a deeper understanding of this population, the study will begin by examining their previous travel experiences and the type of activities they have engaged in before and during their travels. Furthermore, the study seeks to investigate the various factors that influence the decision- making process of international travellers from Coimbatore city.

Table 3.2 Statistics of International Travellers from Coimbatore during the period March 2019- March 2020

Year	Month	No. of travellers
2019	March	18,167
	April	20,209
	May	22,496
	June	22,396
	July	19,422
	August	20,005
	September	18,350
	October	19,969
	November	21,856

	December	24,329
2020	January	24,182
	February	16,947
	March	8,071
Total Travellers		2,56,399

The study being conducted is based on the population of international travellers from Coimbatore city during the period March 2019 to March 2020, which was obtained from the official statistics of the Airport Authority of India (Table 3.2). The study aims to gather information on the travel experiences of respondents in the last five years. However, due to the impact of the COVID-19 pandemic on international and domestic travel, there has been a significant decrease in the number of travellers around the world. Therefore, the researchers have decided to focus on the pre-COVID-19 phase for this study, as she believes it will provide a more accurate representation of the respondents' travel experiences before the pandemic that significantly altered travel patterns.

The study will explore how eWOM influences the choices that international travellers make regarding their travel plans, including the destinations they choose, the types of activities they engage in, and the accommodation options they select. Specifically, the study seeks to explore how they rely on electronic word-of-mouth (eWOM) when making decisions about international travel.

The study aims to investigate how different cohorts of consumers perceive and rely on eWOM when it comes to travel-related decisions. The study will explore whether consumers from different age groups and genders have varying levels of trust and reliance on eWOM. By comparing the perceived usefulness, attitude, and trust towards eWOM among different cohorts, the study seeks to understand the variations in the behaviour and decision- making processes of consumers. Specifically, the study has identified three cohorts of consumers, namely Gen X, Gen Y, and Gen Z, from the population of interest. These cohorts are defined based on their birth years and are expected to exhibit different preferences and behaviours when it comes to travel-related decisions. Through the study, it is expected that a deeper understanding of the role of eWOM in the travel decision- making process of different consumer cohorts will be gained.

Hence, the population of the study is 2,56,399 international travellers from Coimbatore city.

3.7.2. Sample Size Determination

The size of the sample is a critical factor in research design that can impact the ability to detect significant differences, relationships, or interactions. Choosing an appropriate sample size is crucial to ensure that the study results are reliable and representative of the population under investigation. A small sample size may not provide sufficient statistical power to detect significant effects, while an excessively large sample size may be impractical and inefficient. Choosing the best sample size is a n important aspect of research design because it requires careful consideration of several factors such as the research question, the level of precision required, and the variability of the data, (Peers, 1996).

The size of the sample for a study is dependent on multiple factors, including the size of the treatment effects that the researcher wants to measure and the variability of the observational units. Along with the research goals and population size, it is crucial to define three essential criteria for determining the sample size: the required level of precision, the level of confidence or risk, and the degree of variability in the attributes that are being measured. By determining these criteria and defining the appropria te sample size, researchers can ensure that their study results are reliable, accurate, and representative of the population being studied. Choosing the best sample size for a study ensures that there is enough power to detect statistical significance. The sample size is a critical step in the development of a planned research protocol (Suresh & Chandrashekara, 2012).

There are several strategies for determining the sample size. These include using census for small populations, imitating a sample size of similar studies, using published tables and applying formulas to calculate a sample size. When determining the sample size using a calculation, it is said that the sample size is a crucial factor when determining population parameters with a certain level of confidence. To ensure the reliability of the estimates, it is important to calculate the appropriate sample size based on the desired level of precision and confidence. This involves determining the range of values that the true population parameter is likely to fall within, also known as the confidence interval.

By choosing an appropriate sample size, we can increase the likelihood that the sample data accurately represents the population, thus allowing us to make more accura te inferences and conclusions about the population as a whole, (Israel, 1992).

The sample size used in the present study was determined based on a formula for sample size calculation, which took into account the population of international travellers from Coimbatore during the period of March 2019 to March 2020. By applying the sample size calculation formula we can find the sample size for the given population as below:

$$S = Z^2 \text{ x p x } \frac{(1-p)}{M^2}$$

Where;

S is the Sample size

Z is Z-score

P is the Proportion of Success

M is Margin of error

$$S = (2.58)^2 \text{ x } 0.5 \text{ x } \frac{(1-0.5)}{(0.05)^2}$$

$$= 6.6564 \text{ x } 0.5 \text{ x } \frac{0.5}{0.0025}$$

$$= 6.6564 \text{ x } 0.5 \text{ x } 200$$

$$S = 665.64$$

$$S = 665$$

To ensure that the study results are statistically significant and representative of the target population, the appropriate sample size was determined using the sample size calculation formula. The formula estimated that a minimum of 665 respondents would be required for testing the model of the present study. Therefore, it was concluded that the nearest end value of 665 would be the minimum sample size needed for the study to achieve its objectives effectively.

3.8 Statistical Design

Descriptive statistical analysis for the present research was performed using SPSS (Version 16). In data cleaning, descriptive statistics are essential. It aids in the summarization of large amounts of data into simpler and more meaningful forms. SPSS descriptive statistics aid in providing information about the distributions of variables under investigation. SPSS allows you to perform a variety of statistical procedures, including measures of central tendency, variability around the mean, deviation from normality, and information about the spread of the distribution and frequencies (Bell et al., 2003).

The descriptive analysis included the examination of data for frequencies, and data screening for normality through mean, standard deviation, skewness and kurtosis. Mean is the number that best summarizes the entire data set. Standard deviation is a useful measure of spread or variability used in statistics that shows how much the score in the data set clusters around the mean. Skewness is a measure of the asymmetry of a probability distribution for a real-valued random variable. Skewness can range from -3 to +3. The acceptable range of skewness for normality is from -1 to +1. Kurtosis determines whether the data are peaked or flat in compariso n to a normal distribution. Similar to skewness, the acceptable range of kurtosis for normality is between -1 to +1. Descriptive statistics were used to compute the frequencies, mean and standard deviation values of the constructs as well as other relevant factors such as tourist attitudes, and tourist behaviour, to identify common characteristics in the types of trips taken by tourists.

Following data summarization, the measurement scales used in the questionnaire to measure every dimension of the constructs involved in the hypothesized model were assessed for reliability and validity (Kothari, 2004).SPSS also makes it easier to perform reliability analysis, factor analysis, factor loadings, intercorrelations, and hierarchical multiple regression by calculating the R-Square Change, F-Change, and Standard Coefficient Beta for each step (Bell et al., 2003). The purpose of the reliability test is to ensure equivalence, stability and internal consistency (homogeneity). Validity refers to the extent to which the instrument measures what it desires to measure (Kothari, 2004). Scale reliability was measured using Cronbach's alpha. Cronbach's alpha indicates how consistent the responses are across the items on a scale. It is the average of the reliability

coefficients obtained for all possible item combinations when divided into two half- tests (Gliem & Gliem, 2003).

To enhance reliability and increase the alpha score, certain items that measured specific constructs were eliminated. Following statistically required reliability, the validity of the measurement scale was evaluated using confirmatory factor analysis (CFA). In a CFA, the model explicitly specifies the pattern of measurement item loadings on latent constructs. The fit of this pre-specified model is then examined (construct validity) to determine its convergent and discriminant validity. Each construct is distinguished from all others by discriminant validity. Correlatio n analysis between pairs of variables can be used to assess it. Correlation coefficients with significant values indicate that the variables represent the same concept. Convergent validity assesses the degree to which scores on one measure are related to scores on another, whether similar or dissimilar. Convergent validity is concerned with the magnitude and level of significance of standardized factor loading. (Anderson & Gerbing, 1988).

Confirmatory Factor Analysis (CFA) was used as a statistical tool for assessing construct validity and uni-dimensionality. CFA is considered a preferred tool over Exploratory Factor Analysis (EFA) because it provides stricter interpretations (Anderson & Gerbing, 1988). Once the reliability and validity of measurement scales are established using CFA, inferential analyses are performed to test the conceptual model. Inferential statistics is a branch of statistics that helps in concluding and, in some cases, making predictions about a population based on information obtained from a sample.

Inferential statistics are used to draw conclusions that go beyond the immediate data. For example, we use inferential statistics to try to infer what the population might think based on the sample data. On the other hand, we use inferential statistics to assess the likelihood that an observed difference between groups is reliable or that it occurred by chance in this study. Accordingly, we use inferential statistics to make generalisations from our data; whereas descriptive statistics simply describe and provide a summary of the key features of the data we are analyzing (Bell et al., 2003).

The conceptual model is then tested for causal relationships between the model constructs. A causal relationship refers to a dependence relationship between two or more sufficiently correlated variables.

3.8.1. Factor Analysis

Factor analysis refers to a set of techniques that are used to explore and understand how certain underlying concepts or constructs impact the results or responses obtained from several measured variables. There are primarily two types of factor analysis: exploratory and confirmatory. Exploratory factor analysis (EFA) is utilized to identify the nature of the constructs that are believed to have an impact on a particular set of responses. In contrast, confirmatory factor analysis (CFA) is used to verify whether a pre-specified set of constructs is affecting responses expectedly, (DeCoster & . Claypool, 2004).

3.8.1.1. Confirmatory Factor Analysis

Confirmatory factor analysis (CFA) is a sophisticated statistical method that is employed to assess and validate the internal structure of a survey questionnaire that has already undergone reliability testing. CFA is a type of factor analysis that is specifically designed to test hypotheses about the structure of a particular set of variables. CFA is particularly useful when researchers want to examine whether a set of observed variables can be accurately explained by a smaller number of underlying factors or latent variables. By testing a pre-specified model, CFA can help researchers confirm whether their theoretical assumptions about the relationships among variables hold up empirically, (Shek & Yu, 2014).

There are two criteria to test if the data are suitable for factor analysis. They are:

- Bartlett test
- KMO test

- **Kaiser- Meyer- Olkin Test**

The KMO (Kaiser-Meyer-Olkin) test evaluates whether the sample size in factor analysis is appropriate. When a KMO test value is greater than 0.5, indicates that the sample is suitable for proceeding with the analysis. If any pair of variables has a KMO value less than 0.5, it suggests that the variables have a weak relationship and may not be appropriate for the analysis, and dropping one of them may be necessary. In a good model, the off-diagonal elements, which represent the correlations between variables, should be small or close to zero, indicating that the variables are not highly corre lated with each other, (Tabachnick & Fidell, 2013).

- **Bartlett Test**

Bartlett's test for sphericity is a statistical method that measures how different the correlation matrix is from an identity matrix, which has 1s on the diagonal and 0s on the off-diagonal. If the correlation matrix is similar to an identity matrix, meaning that there is little correlation between variables, then factor analysis is not appropriate since any factor structure obtained would be due to chance or sampling error. Therefore, Bartlett's test helps to ensure that the correlation matrix has enough variability to be useful for factor analysis, (Tobias & Carlson, 1969).

According to Bartlett (1950), there are two significance tests to evaluate the suitability of a covariance or correlation matrix for factor analysis. The first test examines the significance of the correlation matrix, and if it is statistically significant, it suggests that at least one factor can be extracted from the matrix. The second test examines the significance of the residuals left after a certain number of principal components have been extracted. If the residuals are significant, it suggests that there is still some unexplained variance in the data that requires additional factors to be extracted. Therefore, both tests help in determining the appropriate number of factors to be extracted for the factor analysis. (Gorsuch, 1973).

Thus, both Bartlett's test for sphericity and the KMO (Kaiser-Meyer-Olkin) test is commonly used to evaluate the suitability of data for Confirmatory Factor Analysis (CFA). Bartlett's test assesses whether the correlation matrix has sufficient variability to be useful for factor analysis. The KMO test examines the sampling adequacy of the data, where a KMO value of at least 0.5 is typically considered suitable for CFA. By using both tests, researchers can determine whether the data is appropriate for CFA, identify the number of factors that can be extracted from the data, and assess the overall fit of the model. Therefore, Bartlett's test and KMO test are crucial for determining the suitability of data for CFA and ensuring that the analysis is valid and reliable.

The purpose of conducting this test was to validate the loading of the factors associated with the independent variables, specifically eWOM Quality, eWOM Quantity, Source Credibility, Homophily, Searchers Intent, and Level of Involvement. By employing this test, the researcher aimed to ensure the accuracy and reliability of the measurement model used in the study. Confirming the loading of these factors is essential as it establishes that the selected variables effectively capture the underlying constructs

they represent. This process ensures the robustness of the data analysis and strengthens the overall validity and integrity of the research findings.

3.8.2. Reliability Test

Reliability analysis is a statistical technique that enables the evaluation of the consistency and stability of measurement scales and their constituent items. This method calculates various measures of scale reliability commonly used in social science research and provides insights into the relationships between individual items in the scale. By conducting a reliability analysis, researchers can assess the quality of their measurement instruments and enhance the accuracy and validity of their findings.

By conducting reliability analysis, researchers can calculate several widely- used measures of scale reliability and gain valuable insights into the relationships between individual items within the scale. This information can help researchers to identify which items are most closely linked and contribute the most to the overall scale score, (IBM , 2014).

3.8.2.1 Cronbach Alpha

Cronbach's alpha is a widely used measure of internal consistency, which is a type of reliability that evaluates the consistency of items within a scale or measure. This measure is particularly useful when researchers are working with multiple Likert questions in a survey. Cronbach's alpha measures the extent to which items on a scale are interrelated and provide consistent responses. A high Cronbach's alpha value indicates a high degree of internal consistency among the items in the scale. Using Cronbach's alpha can be especially useful in research settings where the reliability of a measure is critical to the validity of the study's findings, (Laerd Statistics, 2018).

To provide evidence that the scale is uni-dimensional, researchers can perform additional analyses alongside measuring internal consistency. One such method is exploratory factor analysis, which helps to check the dimensionality of the scale. It's important to note that while Cronbach's alpha measures reliability or consistency, it's not a statistical test but rather a coefficient that can be used in conjunction with other tests to evaluate the validity of the scale.

The researcher has used this measure to test the scales' reliability and has identified the items that need to be modified and removed to improve the overall reliability of the scale.

3.8.3. Structural Equation Model

The present study employs Structural Equation Modelling (SEM) technique to explore the sequential relationship of the hypothesized relationships in the model. In the model developed in this research, there are independent variables and dependent variables, mediated by perceived usefulness, attitude and trust. The mediating variables represent an intervening variable through which the independent variables can influence the dependent variable (Baron & Kenny, 1986). The effect of the mediating variable can be investigated through path analysis and SEM strategies. Path analysis refers to a series of regression equations that estimate the direct and indirect pathways between independent and dependent variables. SEM strategies are based on maximum likelihood analysis and are necessary if the mode l includes unobserved variables or if the model includes reciprocal effects or has correlated residuals (Kim et al., 2001). The independent and dependent variables may have a direct relationship. The existence of such a direct relationship, however, is beyond the scope of this study. In other words, the model developed here is a full mediation model that assesses the indirect influence of independent variables on the dependent variable via a mediating variable. A moderating variable can strengthen, diminish, nullify, or otherwise change the relationship between independent and dependent variables. Moderating variables can alter the direction of this relationship as well. A moderating variable can be categorical (e.g., race) or continuous (e.g., weight), and it is only used in quantitative research, not qualitative. Moderating variables help explain the relationships between independent and dependent variables. These moderating variables, also known as simply moderators, provide additional information about the association between two variables in quantitative research by explaining what features can make that association stronger, weaker, or even disappear, (Hefner, 2017).

Structural equation modelling (SEM) has grown in popularit y across many disciplines over the last two decades, owing to its generality and flexibility. Structural equation modelling (SEM) encompasses such diverse statistical techniques as path

analysis, confirmatory factor analysis, causal modelling with latent variables, and even analysis of variance and multiple linear regressions. SEMs allow for both confirmatory and exploratory modelling, making them suitable for both theory testing and theory development. SEM is used to test 'complex' relationships between observed (measured) and unknown (latent) variables, as well as relationships between two or more latent variables. Structural equation modelling (SEM) SEM model is used to determine the model fit with considered variables. There are several goodness-of-fit indices. The overall fit measures, the goodness of fit statistic (GFI), adjusted goodness of fit of statistic, the normed fit index (NFI), comparative fit index (CFI), and root mean squared residual (RMR). CFA has been used as an interpretation of model fit indices.

The study used Structural Equation Modelling (SEM) to investigate the relationship between independent factors (eWOM Quality, eWOM Quantity, Source Credibility, Homophily, Searchers Intent, and Level of Involvement) and the intention to Travel. The analysis focused on the mediating role of Perceived Usefulness, Attitude, and Trust in eWOM adoption for travel- related decision- making. SEM was chosen as the analytical approach to comprehensively examine the complex interplay among these variables and provide a deeper understanding of their influence on travel intentions.

3.8.4. Normality Test

A probability distribution is said to be symmetric about the mean if the data points are evenly distributed on either side of the mean, creating a bell- shaped curve. Such a distribution is commonly referred to as a normal distribution. In a normal distribution, the data points close to the mean are more frequent in occurrence compared to those farther away from the mean. To determine if a dataset follows a normal distribution, statistical measures such as skewness and kurtosis are used. Skewness measures the degree of asymmetry in the distribution, with a value of 0 indicating perfect symmetry. Kurtosis, on the other hand, measures the degree of peakedness or flat ness of the distribution relative to the normal distribution, with a value of 3 indicating a normal distribution. Normality assessment is important in statistical analysis as many statistical tests assume that the data follow a normal distribution, (Latif, 2021).

Normality tests are commonly used to determine whether a data set is normally distributed or not. These tests are important because many statistical procedures rely on

the assumption that the data follows a normal distribution. While visual inspection of the data through graphs can give an initial indication of normality, it is often necessary to supplement this with formal tests (Ghasemi & Zahediasl, 2012).

The normality of data is commonly assessed by measuring skewness and kurtosis. Skewness is used to evaluate the symmetry of data, with an absolute value of 1.0 or lower indicating normality. However, if the sample size is large and the Critical Region (CR) for the skewness does not exceed 8.0, SEM using Maximum Likelihood Estimator (MLE) such as AMOS can be robust to skewness greater than 1.0. Therefore, researchers can proceed with further analysis (SEM) even if the data distribution is slightly non-normal. A sample size greater than 200 is generally considered large enough in MLE. The acceptable range for skewness could be up to +/-2, although some experts suggest a value of +/-3. Additionally, kurtosis is used to assess the degree of peakedness or flatness of data. SEM using MLE is also robust to violations of multivariate normality regarding kurtosis as long as the sample size is large. The acceptable range for kurtosis to be considered normally distributed is from −10 to +10. Based on the results obtained from measuring both skewness and kurtosis, it can be concluded that the data under analysis is "normal", (Latif, 2021).

There are several statistical tests used for the assessment of normality, and they all have different strengths and weaknesses. The mos t commonly used tests are the Kolmogorov-Smirnov (K-S) test, Lilliefors corrected K-S test, Shapiro-Wilk test, Anderson-Darling test, Cramer-von Mises test, D'Agostino skewness test, Anscombe-Glynn kurtosis test, D'Agostino-Pearson omnibus test, and the Jarque-Bera test. These tests examine various aspects of the data distribution, such as its skewness, kurtosis, and tail behaviour, and compare the observed data to what would be expected from a normal distribution. It's important to note that no single test is perfect, and different tests may give conflicting results depending on the data and sample size. Therefore, it's generally recommended to use multiple tests and to also rely on visual inspection to make a more informed decision about the normality of the data. Ultimately, the decision to assume normality or not should be based on a combination of formal tests and expert judgment, (Ghasemi & Zahediasl, 2012).

In this analysis, the entire model is examined using a multivariate normality test, which provides information about the skewness and kurtosis values. This normality test is

conducted individually for each factor included in the model to assess their distributional properties. The purpose is to determine whether the model conforms to a normal distribution and assess its overall fitness.

3.8.5. Regression

Regression analysis is a widely used statistical method for investigating the relationships between variables. It is a powerful tool that allows researchers to explore how one variable affects another, by analyzing the direction, magnitude, and statistical significance of their association. Regression analysis can be used to model complex relationships between variables, including linear and nonlinear relationships, and can be used to make predictions about future outcomes based on the observed data. Regression analysis provides a systematic way to study and quantify the relationships between variables, making it an essential tool for data analysis and research, (Sykes, 1993).

This analysis is used to examine the relationship paths between each of the independent variables (eWOM Quality, eWOM Quantity, Source Credibility, Homophily, Searchers Intent, Level of Involvement), the mediating variables (Perceived Usefulness, Attitude, and Trust), and the dependent variable (Intention to Travel). These relationship paths were estimated to investigate the quantitative effect of the causal relationships between them.

3.8.6. Correlation

Correlations are commonly used to measure the strength of the linear relationship between two variables, (DeCoster & . Claypool, 2004). Correlation analysis is a statistical method used to measure the strength of the relationship between two or more variables. It helps us to understand how changes in one variable are associated with changes in another variable. However, it is important to note that correlation does not imply causation The Correlations procedure is a statistical method that ca lculates three types of correlation coefficients: Pearson's correlation coefficient, Spearman's rho, and Kendall's tau-b, along with their respective significance levels. These correlation coefficients are used to measure the relationship between variables or rank orders, (Kafle, 2019).

However, before conducting a correlation analysis, it is important to screen the data for outliers, which can lead to inaccurate or misleading results. The evidence of a linear relationship between the variables should be established before calculating the correlation coefficient. These steps ensure the reliability and validity of the correlation analysis, (DeCoster & . Claypool, 2004).

In this study, the researcher employed a linear bivariate correlation method for analyzing the data. The linear bivariate correlation is a statistical technique used to measure the relationship between two variables. It helps to determine the strength and direction of the linear association between the two variables.

This method involves calculating a correlation coefficient, which is a numerical value between -1 and +1. A positive correlation coefficient indicates a positive association between the two variables, meaning that they tend to increase or decrease together. A negative correlation coefficient indicates an inverse relationship, meaning that as one variable increases, the other tends to decrease.

The strength of the correlation is measured by the absolute value of the correlation coefficient. A value close to +1 or -1 indicates a strong correlation, while a value close to 0 indicates a weak correlation. The significance of the correlation coefficient is determined by its p-value, which measures the probability that the correlation occurred by chance.

The correlation analysis was conducted in this study to assess how effectively the dependent variable 'Intention to Travel' can be predicted using a linear function of specific independent variables, namely 'eWOM Quality, eWOM Quantity, Source Credibility, Homophily, and Searchers Intent,' along with the mediating variables 'Perceived Usefulness, Attitude, and Trust.' The analysis also examines the positive nature and significance of the relationships between these variables.

3.8.7. Anova Test

ANOVA, which stands for Analysis of Variance, is a statistical method that is widely used for hypothesis testing. It is considered to be one of the most popular methods currently in use. ANOVA is a versatile tool that can cover a broad range of experimental designs, which makes it a valuable technique in the field of statistical analysis. It allows

researchers to test the significance of differences between multiple groups and can help in identifying the factors that contribute to those differences, (St»hle & Wold, 1989).

In statistical analysis, a one-way between-subjects ANOVA is used to determine if there is a relationship between a categorical independent variable and a continuous dependent variable, where each subject is only in one level of the independent variable. This technique tests whether the means of all the groups are the same, indicating whether there are any differences among the means. If there are, we know that the value of the dependent variable is influenced by the value of the independent variable. In ANOVA, the independent variable is referred to as a factor, and the different groups composing the independent variable are known as the levels of the factor. This type of ANOVA is also known as a single-factor ANOVA, (DeCoster & . Claypool, 2004).

After obtaining significant results from ANOVA, several post hoc tests are available for performing pair-wise comparisons while controlling for Type I errors. Some of the commonly used post hoc tests for ANOVA include the Duncan Multiple Range tests, Dunnett's Multiple Comparison tests, Newman-Keuls test, Scheffe's test, Tukey's HSD test, Fisher's LSD test, and Sidak. The researcher has chosen to use the independent t-test to test the significant relationship between dependent and independent variables and Turkey's HSD test to identify any significant differences between the means of specific groups when compared to each other.

3.8.7.1. Independent t-Test

A one-way ANOVA with two groups is equivalent to an independent-sample t-test, where the p-values are identical and the F statistic from ANOVA equals the square of the t statistic from the t-test. An independent-samples t-test, which is also referred to as a between-subjects t-test, is a statistical tool that is utilized to compare the average values of a particular target variable across two distinct groups. It is important to note that this test is appropriate only when the two groups being compared consist of completely different members. To execute an independent-sample t-test using SPSS, you will need to have a variable that represents the group membership, with distinct values assigned to each of the two groups being compared. This statistical technique enables researchers to determine whether there are significant differences in the mean values of the target variable between the two groups. This information can offer important insights into the

factors that affect the variable under consideration, which can be valuable in a variety of research contexts, (DeCoster & . Claypool, 2004).

The purpose of this t-test analysis was to examine and compare the mean values of Perceived Usefulness, Attitude, and Trust among respondents, specifically focusing on their gender and marital status. By examining these variables, valuable insights can be gained regarding potential differences or patterns related to gender and marital status, contributing to a deeper understanding of how these factors may influence perceived usefulness, attitudes, and trust in the context of eWOM adoption and travel-related decision-making.

3.8.7.2. Post Hoc Test with Turkey HSD

After conducting ANOVA to analyze the pattern of differences between means, it is common practice to perform pairwise comparisons, which involve comparing two means. (Abdi & Williams, 2010). According to Nanda et al, (2021), initially, the results of multiple test studies were concluded based on the alpha value and independent P value. However, John Tukey recognized a drawback associated with this process and developed the test that bears his name. The Tukey test compares the differences between means of values, instead of comparing pairs of values. This test is conducted by taking the absolute value of the difference between pairs of means and dividing it by the standard error of the mean (SE), which is determined by a one-way ANOVA test. The SE is calculated as the square root of the variance divided by sample size. The Tukey test is a post hoc test, which means that the comparisons between variables are made after the data has been collected. Overall, the Tukey test is a valuable tool for analyzing data and identifying significant differences between means.

Thus, the Tukey HSD test is a valuable tool for analyzing data in SPSS. It allows for pairwise comparisons between means and identifies significant differences between them. The HSD test can provide researchers with a more in-depth understanding of the data and can help draw meaningful conclusions. When conducting the Tukey HSD test in SPSS, it is important to ensure that the data meet the assumptions of ANOVA and that the test is appropriate for the research question at hand. Overall, the Tukey HSD test in SPSS is an important statistical tool that can enhance the rigour and validity of the analysis.

The researcher employed this test to compare the means of various demographic variables, including age, education, occupation, income, residence, and family size, among the respondents. The objective was to identify significant differences between these demographic factors. By conducting such a comparison, the researcher aimed to gain insights into the potential variations and associations among these variables. This analysis provides a valuable understanding of how demographic characteristics may influence the perceived usefulness, attitude and trust towards eWOM adoption and travel-related decision-making.

3.9. Chapter Summary

The chapter has explained the research questions based on the literature review and conceptual model developed by the researcher. The primary and secondary objectives of the study are detailed and hypotheses have been developed to be subjected to empirical testing. Literature was again reviewed during hypothesis development for the sake of clarity and to ensure the validity of the relationships to be enquired. The details of the methodology followed by the researcher during their investigation were explained. It may be noted that the research design for the purpose of the present study is descriptive. The researcher has employed stratified random sampling for primary data collection. Responses were collected from 833 respondents who travelled internationally before Covid-19. Secondary data were collected from available published literature from various indexed journals covering the themes associated with tourism and eWOM. Data were analysed using SPSS for descriptive and inferential statistical analyses. The hypothesized model was tested using SEM. SPSS AMOS (version 26) was used to test the significance of hypothesized model within the scope of the study.