Chapter 4

Research Methodology

Contents

4.1 Introduction

The nation's economy grows as a result of authentic enterprises, whereas counterfeit businesses stifle that progress. Items with sound brand popularity are easier for counterfeiters than items with modest brand popularity. One element of the economic facet that drives sustainable business growth involves thwarting the counterfeiting of items. Given that customer demand remains the predominant driver of a market, it is crucial to note that consumer demand for counterfeit goods represents one of the main motivating factors for the existence and expansion of a counterfeiting catastrophe.

Producing and selling counterfeit goods damages corporate goodwill and brand reputations, lowers earnings, devalues costs associated with R&D, and results in legal troubles. Counterfeit products give rise to lost tax revenue for the government, loss of sales and profit for the manufacturers of genuine products, loss of employment opportunities, health hazards, and other related risks for consumers, etc. Accordingly, the current study emphasizes the demand side of counterfeiting for tracking the perception of customers regarding counterfeits and the motives that facilitate the value considerations, attitude development, and intent to purchase the counterfeits in the context of non-deceptive counterfeit merchandise in Kerala.

4.2 Research Problem

Considering the fact that the market for counterfeit goods is booming and that consumers who purposefully buy counterfeit goods account for a sizable portion of losses, it is suggested that before businesses develop, execute, and promote advertising and marketing initiatives that may mitigate the demand for counterfeit goods, a more thorough knowledge of their consumers is essential to the success of their campaigns. All around the world, counterfeiting has expanded into a supplementary economic process. Consumers and counterfeiters continue to be driven by the desire to feast on major brands at only a portion of the price due to rapid globalization, advancements in e-commerce, and the growth of information technology. Although counterfeiting has been a problem for reputable manufacturers since the 1970s, it has been prevalent for a very long time. Reproduced items of a trademark brand that are almost comparable to or identical to real goods are considered counterfeits. This involves using trademarks, packaging, and labelling to falsely represent a product to be the original. The manufacturer himself may not be able to tell the difference between an authentic item and a counterfeit item.

The global dilemma facing branded goods is caused by the rising sales of counterfeit goods. The amount of counterfeit trade has increased from USD 650 billion to approximately USD 3 trillion during the past decade. Counterfeiting has cost the world economy 323 billion dollars in losses. According to the FICCI CASCADE (2023) Report, the illegal and counterfeit trade in the top five industries leads to 15.96 lakhs in terms of loss of actual employment opportunities. The anticipated tax revenue lost to the government as a result of these commodities is Rs. 58,521 crores, with the tobacco and alcoholic beverage sectors contributing approximately 49 percent of the total tax loss.

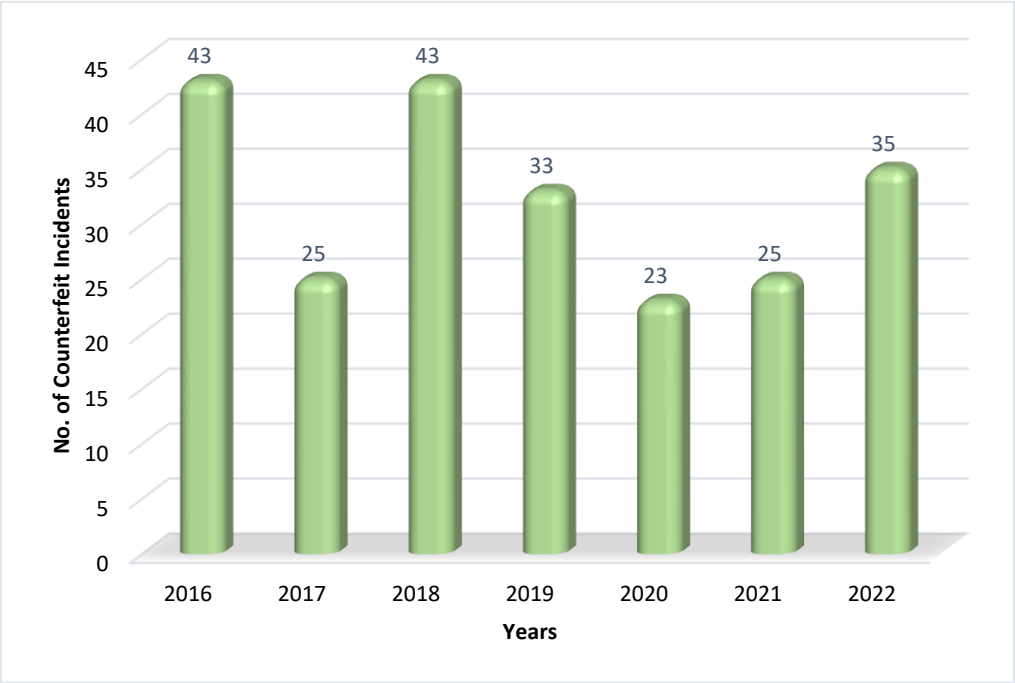
Mishra and Rana (2019) have opined that the Indian population, as well as the consumption of counterfeit goods in India, is increasing at a threatening rate. According to the FICCI (2021) Report, this unlawful commerce accounts for 10 percent of the total trade around the world. The consumer market for counterfeit goods is expanding at a 40 percent annual pace in India. According to the OECD/EUIPO (2022) Report, India is the world's 10th largest producer of harmful counterfeit goods. It also showed India's ranking as the eighth provenance economy

importing counterfeit goods into countries in the European Union, fifth in the trade of counterfeit goods through online channels, and seventh in the trafficking of counterfeit goods via marine routes. The General Trade-Related Index of Counterfeiting Economies (GTRIC-e) has determined the rankings. Moreover, India is on the Priority Watch List of Special 301 Report on Intellectual Property Protection and Enforcement released by USTR (United States Trade Representative).

According to earlier studies, thirty percent of customers deliberately buy counterfeit items (Phau et al., 2001; Tom et al., 1998). The fact that Kerala is a consumer state means that there are greater chances for unauthorized dealers and counterfeiters to take advantage of the state's consumers. The FICCI CASCADE Annual Report (2021) stated that during the pandemic period of coronavirus attack worldwide, the law enforcement entities of Kerala were able to seize a sizable amount of counterfeit sanitizers, fake and inferior quality masks, counterfeit PPE kits etc.

Figure 4.1

Counterfeit Incidents Reported in Kerala



Source: https://keralapolice.gov.in/crime-statistics/ipc-cases

The figure plotted above exhibits the number of counterfeit incidents reported in the state of Kerala from 2016 to 2022. The data has been drawn from the published official reports of crime statistics during the aforementioned time period by the Kerala police force. The figure showing counterfeit occurrences in 2017 displayed a decrease of 41.9 percent from 2016, whereas it was moved up again tremendously by 72 percent in the year 2018. Counterfeit incidents marked a fall in 2019 by 23.3 percent and a further decline of 30.3 percent in 2020. The data shows a decreasing trend during the pandemic time which was in contrary to the status of the Indian economy at the same period. 2021 signalled a hike of 8.7 percent and it got even exacerbated by 40 percent in 2022. The alarming upsurge in the cases of counterfeit goods over the past two years in Kerala has shown the urgent necessity to confront the threat posed by these activities.

One of the factors contributing to the growth of counterfeiting is the desire for counterfeit products among consumers. It is the reason why counterfeiting exists and flourishes in almost all economies (Ang et al., 2001). The scarcity of demand-side investigations in the state of Kerala regarding counterfeit consumption and the presence of the abovementioned problems and consequences of counterfeits makes it justifiable to conduct the study in Kerala. Therefore, it is significantly necessary to determine and examine the factors contributing to the attitude and purchase intentions of consumers towards counterfeit products in the State of Kerala. Hence, the study highlights the perception of customers regarding counterfeits, motivating forces or driving factors that leads to the customer attitude and intent to buy counterfeits along with the examination of mediating effect of attitude and perceived value as well as extraction of moderating effect of the novelty-seeking behaviour of the customers.

4.3 Research Questions

From the extensive literature, the researcher formulated the research questions which would form the base for framing the objectives of the study. Following are the research questions:

- What are the cognitive, affective, and social factors that motivate customers in Kerala to engage in the purchase of counterfeit products?

- What is the extent to which customers in Kerala perceive value, hold positive attitudes, and express purchase intentions towards counterfeit products?
- What are the effects of different motivating factors influencing counterfeit purchases on the development of attitudes and purchase intentions among customers in Kerala?
- Does the presence of a positive attitude and perceived value mediate the relationship between drivers of counterfeit buying and purchase intention?
- Does the level of novelty-seeking behaviour have a moderating effect on the relationship between price-quality inference, and perceived value and purchase intentions?

4.4 Research Objectives

The researcher identified the research gap from the existing literature in the context of counterfeiting and formulated the following research objectives:

- To investigate the cognitive, affective, and social drivers influencing the customers to purchase counterfeit products in Kerala.
- To examine the level of perceived value, positive attitude and purchase intentions of counterfeit products among the customers in Kerala
- To explore the effects of customer motives on attitude formation and purchase intentions towards counterfeit products in Kerala.
- To examine the mediating effect of positive attitude and perceived value on the association between drivers of purchasing counterfeits and purchase intentions.
- To extract the moderating effect of novelty-seeking behaviour on the influence of price-quality inference on perceived value and purchase intentions.

4.5 Major Hypotheses of the Study

A comprehensive examination of the literature forms the foundation for hypotheses. The relationships between the customer motives across socio-demographic factors as well as direct effect of the same on the attitude, perceived

value, and purchase intention have been hypothesized along with the mediation and moderation effects which are as listed below:

H1: Cognitive, affective and social drivers of the customers in Kerala that influence them to buy counterfeit products are at an average level.

H0: There is no significant difference between various socio-demographic factors of customers with respect to factors of cognitive, affective and social drivers of purchasing counterfeit products.

H0: There is no significant difference among the levels of perceived value, positive attitude and purchase intention of customers with regard to counterfeit products.

H0: There is no significant association between various socio-demographic factors of customers and the level of perceived value, positive attitude and purchase intention of customers with regard to counterfeit products.

H0: There is no significant association between the degree of driving factors of counterfeit product buying and the level of perceived value, positive attitude and purchase intention of customers with regard to counterfeit products.

H1: Cognitive, affective and social drivers of counterfeit product buying have a positive effect on customers' positive attitude and purchase intention.

H1: Positive attitude of the customers has a positive effect on purchase intention.

H1: Positive attitude and perceived value mediate the relationship between drivers of counterfeit products and purchase intention.

H1: Novelty seeking behaviour has a moderating effect on the strength of the relationship between price-quality inferences, and perceived value and purchase intentions.

4.6 Conceptual Framework of the Study

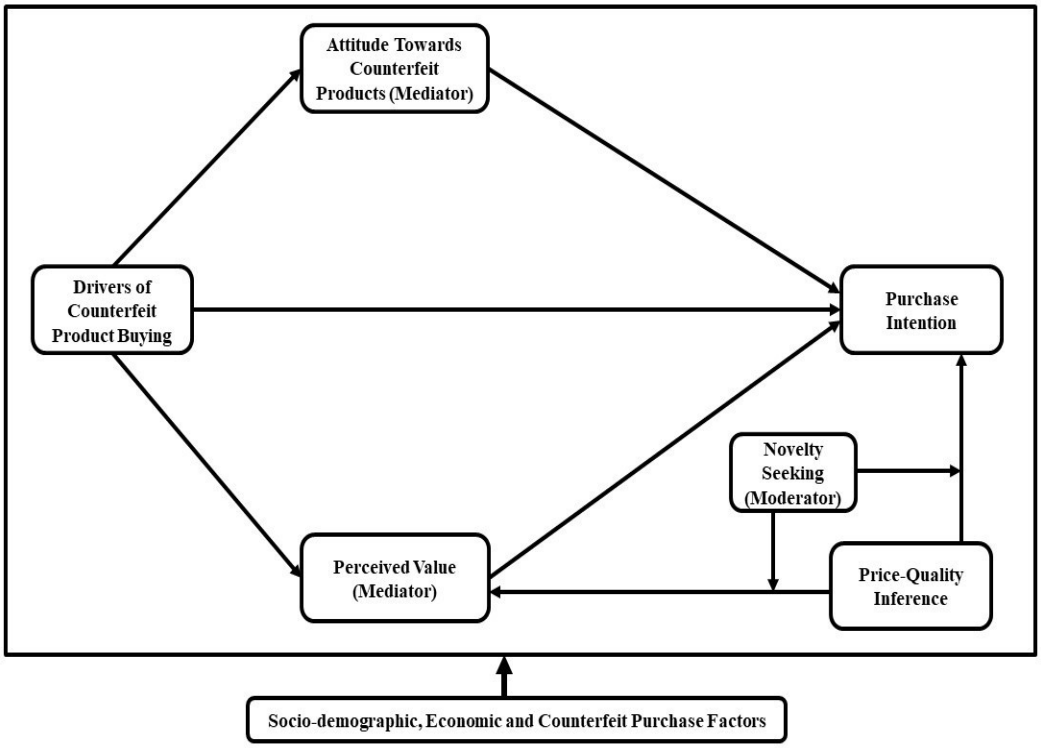
With the aid of existing research, the basic theoretical framework has been expanded into an all-encompassing model. The concepts relating to counterfeiting areas are pursued to be integrated into a theoretically sound, logical framework that explains and logically underpins them. The conceptual framework described here

was meant to articulate its justification for assessing customer perception, motives, attitude, and intention to purchase counterfeit products in the context of Kerala.

The conceptual model for this study was derived from prior research and literature that exhibits the constructs under drivers of counterfeit product buying which are treated as independent variables, attitude towards counterfeits and the perceived value of the same which are considered as the mediating variables, novelty-seeking tendencies of the customers which are taken as the moderating variable to express two moderation effects, and finally, purchase intention which is treated as the dependent variable. Drivers of counterfeit product buying comprise the three main customer motives which are cognitive drivers, affective drivers, and social drivers that either constitute a favourable attitude concerning counterfeits or an unfavourable attitude towards the same. These driving forces can also induce or stimulate customers to purchase counterfeits to satisfy their needs and desires for occupying branded products that are not primarily affordable for them.

Figure 4.2

Conceptual Framework



Source: Developed by the Researcher

4.7 Scope of the Study

Trademark infringement is an alarming problem since counterfeit goods affect a wide range of businesses in both industrialized and developing nations' B2B and B2C marketplaces. By reducing the demand for the supply of counterfeit goods, these criminal practices can be curbed. Studies focusing on the demand side of counterfeiting are still rare, especially in the context of India. Recently, more research is conducted on counterfeiting activities and their effects in various segments of the economies worldwide, and it is undeniable that the counterfeit element is present in almost all the industrial sectors in India. The state of Kerala is not free from the tentacles of counterfeiters. Despite this fact, the scarce studies on counterfeiting issues in the Kerala commerce literature signal a gap. As a result, the study's goal is to determine the factors that contribute to customers buying counterfeit goods as well as their attitudes and intentions in the context of Kerala. The respondents to the survey are customers who live in Kerala State, and the study is conducted within the framework of the state.

This study confines its application to non-deceptive counterfeiting, in which consumers intentionally purchase counterfeit products. The selection of non-deceptive counterfeits is considered to be significant since only in this case the customers' attitudes towards counterfeits would reflect their demand for such products. According to the Theory of Reasoned Action (TRA), personal and societal variables have a substantial influence on people's buying intentions for counterfeit goods. The stimulating factors explained in the S-O-R (Stimulus-Organism-Response) model mentioned the inevitable elements of cognitive, affective, and social drivers in the counterfeiting studies. These factors are those that add up to a personal attitude towards the purchasing intention. A non-deceptive counterfeit item is referred to as a counterfeit product in this study.

The study examines how consumer perception, motives, attitudes, and purchase intentions about counterfeits are affected by socio-demographic, economic, and counterfeit purchase factors. The study additionally explores how positive attitudes and perceived value mediates the relationship between drivers of counterfeit product buying and purchase intention. The study likewise extracts how

novelty-seeking behaviour moderated the perceived value and purchase intentions by the interaction effect with price-quality inference. The study would add to the body of knowledge on demand-side investigations and aims to provide manufacturers, retailers, academicians, and policymakers with a better understanding of the adverse impact of consumer purchasing behaviour towards counterfeits. The findings and recommendations of the research would help businesses to combat counterfeiting by enabling them to develop stronger marketing strategies and, more importantly, aid them identify the market segments they should target and how to address the consumer demands that are at present being satisfied by the counterfeit products.

4.8 Research Methodology

The methods used by the researcher to carry out the suggested research are extensively outlined in this part of the chapter. The proposed research design for the study, the sources of the data used for the research, the sampling methodology, the development of the research instrument, the variables under study, and the explanations of the different methods of statistical analysis utilized for the study have been provided in depth.

4.8.1 Research Design

The goal of the research is to identify the relationships between the driving factors that affect customers of counterfeit goods' attitudes and purchasing intentions. The demographic disparities among customers with varying attitudes towards and intentions to buy counterfeit goods are examined. Hence, a descriptive research strategy encompassing customers of counterfeit goods in Kerala has been opted for the purposes of the research. The study collected descriptive data about the characteristics of the population on the grounds of their perception as well as cognitive, affective and social driving factors and provides explanations of the same in the context of non-deceptive counterfeit products. Hence the study is descriptive in nature. As the study formulated the hypotheses and tested these hypotheses using various statistical tools to know the effects of customer perception and motives, level of attitude and intent to purchase the counterfeits, it is analytical too.

4.8.2 Sources of Data

The study makes use of both primary and secondary data sources, although it emphasizes the primary data that was gathered using a standardized questionnaire which was individually distributed and administered to the prospective customers of counterfeit products in Kerala. Information based on counterfeit markets or producers is hard to obtain due to its clandestine nature. The term 'customers' used in this study is the potential customers of the counterfeit products in Kerala. The secondary data sources have mostly been employed for background research and for analyzing the results of earlier studies in this field. It was feasible to offer insightful recommendations by considering the research's findings and the body of prior literature. Secondary information was gathered from an assortment of published sources, including journal articles, reports from various national and international organizations, reports in the press, books, earlier research, and pertinent websites.

4.8.2.1 Secondary Data

The secondary data made it possible to conduct a more in-depth investigation and offered chances to compare and interpret the findings with those of previous investigations. The research mainly acquired secondary data from a multitude of sources, including the reports and publications of the Organisation for Economic Co-operation and Development, World Trademark Review on Anti-counterfeiting and Online Brand Enforcement, European Union Intellectual Property Office, European Commission Report on the Protection and enforcement of Intellectual Property Rights, International Trademark Association Committee, Review on Notorious Markets for Counterfeiting and Piracy, Business Action to Stop Counterfeiting and Piracy, Frontier Economics, Associated Chambers of Commerce and Industry of India, Federation of Indian Chambers of Commerce and Industry, Committee Against Smuggling and Counterfeiting Activities Destroying the Economy, Authentication Solution Providers' Association, Crime Statistics Records of Kerala Police, national and international academic journals, proceedings from conferences, and contents featured in periodicals that provided pertinent details on reliable information, trends, and counterfeiting practices. International and national legal frameworks were incorporated as well.

Furthermore, the research comprised information pertaining to consumer behaviour, customer perceptions, marketing strategies, counterfeit-related topics, and the consequences of counterfeits on the economy as a whole, which provided a solid foundation for understanding the context and history of the research problem. Official Websites of OECD, WCO, BASCAP, NASCAP, INTA, FICCI, ASSOCHAM, and Ministry of Commerce and Industry were also depended upon for obtaining secondary data on the trends and trade via counterfeiting. The aforementioned authoritative sources offered a solid foundation for extracting data from theoretical frameworks, which assisted in the examination and interpretation of the research outcomes.

4.8.2.2 Primary Data

The primary data for the study was gathered using a well-structured questionnaire, which was specifically designed to achieve the research objectives focusing on the perception of customers towards counterfeits and the motivating factors that would stimulate them towards counterfeits in the context of Kerala. A field study was conducted, and customers were surveyed on their thoughts on various assertions in order to acquire primary data. Data on different components were obtained, which included characteristics indicated as motivators for consumer attitude and purchase intention. Respondents were asked to rate their level of agreement or disagreement with each statement. The final data collection was conducted after gaining a valuable understanding of the research instrument through the pilot survey.

4.8.3 Sampling Design

Sampling is a statistical approach in which the entire research is based on a subset of the population in order to derive conclusions about the overall features of the population. The research procedures and analyses would be used to determine the unit of study. The sampling strategy guarantees that the samples are accurate and reflect the characteristics of the larger population. Furthermore, it guarantees that the sample is appropriate for addressing the study objectives, reduces sampling bias, and ensures an effectively constructed sampling design.

4.8.3.1 Population

As outlined by Malhotra and Peterson (2001), a population characterization must identify the geographical limits of the research. The population mentioned in the above definition thus confines the research population's geographical boundaries to Kerala. The state of Kerala was chosen as the research's geographic emphasis because it has seen an increase in counterfeit seizures and incidents recorded in recent years. Yet, it remains an unexplored geographical distribution in the context of counterfeiting practices. It does not limit the population to prior counterfeit customers but also includes non-buyers to examine their attitudes and purchase intention but has considered only those who have attained the age of 18 years. As a result, consumers who have previously purchased counterfeit goods and those who intend to buy counterfeit goods in the future were included in the target group. Because the goal at this time was to analyse the perception of consumers towards counterfeited items, questions focused on the phrase "counterfeited products" in general. Finally, the study intended to collect data on the perceptions and motives of customers towards counterfeit products.

4.8.3.2 Sample Size Determination

The pilot study was conducted with the help of a draft questionnaire which was administered to a sample of 90 customers. This process assisted the researcher in modifying the statements that affect the quality of the research instrument as well as offering the opportunity to understand the dimensions of the research.

The sample size was determined based on the standard deviation of the pilot study's sample of 90 respondents. The sample size was determined at a significance level of 5% to ensure that the standard error would fall within acceptable limits. Using the following formula of Israel (1992), the sample size was determined:

Sample size (n) = $(ZS/E)^2$

Where, Z = Standard Value corresponding to confidence level of 95% = 1.96

S = Sample Standard Deviation from the pilot study of 90 sample = 0.699

E = Acceptable Error = 5% (i.e., 0.05)

Hence, the sample size (n) = $(ZS/E)^2$ = $(1.96*0.699/0.05)^2$ = 750.76

Thus, in the final phase, 751 data samples were collected for the research purpose.

During the data analysis phase of the investigation, the sample size was determined using the covariance-based structural equation modelling (CB-SEM) method. The implementation of Structural Equation Modelling (SEM) analysis using Maximum Likelihood Estimation requires a sample size that maintains a 5:1 ratio of cases to free parameters, as per the recommendations of Tanaka (1987), assuming the use of multivariate normal data. The study determined that a sample size of 751 was adequate for developing CB-SEM models.

4.8.3.3 Sampling Technique

The clandestine nature of counterfeit markets or manufacturers makes it challenging to gather information on the same. The sample selection method employed in the current research has been meticulously developed to align with the research objectives. The study emphasized the significance of obtaining a representative sample of customers from the state of Kerala. The term 'customers' used in this study is the potential customers of counterfeit products in Kerala. In order to choose respondents for the research on consumers' perceptions of counterfeit goods and the driving factors that influence the development of attitudes and purchase intentions towards counterfeits in the state of Kerala, a multi-stage random sampling approach was used. The process of categorizing was done to ensure participation from diverse geographic locations and to account for any differences in customers' perceptions due to the availability and accessibility of counterfeits in Kerala.

Since the counterfeit study is exploratory in nature, a true and fair representation of Kerala population has to be assured. For the same, the fourteen districts in the state of Kerala were split into three main regions in the first stage: the North Kerala Region, the Central Kerala Region, and the South Kerala Region. These regions were grouped based on shared geography, history, and cultural traits. The districts that made up the north Kerala region were Kasargod, Kozhikode, Kannur, Wayanad, and Malappuram; the four districts that made up the central

Kerala region were Palakkad, Ernakulam, Thrissur, and Idukki; and the five districts that made up the south Kerala region were Kottayam, Kollam, Pathanamthitta, Alappuzha, and Trivandrum. By using stratification, it was made sure that the sample included people from different geographical regions. In order to accommodate representation from all three areas, one district from each of the three regions was included using the lottery method. The study was conducted in the districts of Malappuram from the north region of Kerala, Thrissur from the central region, and Alappuzha from the south region of Kerala. In the following phase, two wards—one from the municipality and one from the grama panchayat—were chosen through a lottery method. Given that Municipalities have a larger population than Grama panchayats, 150 respondents from the Municipality ward were chosen using the systematic random sample approach, and 100 respondents were chosen in the same way from the Grama panchayat ward.

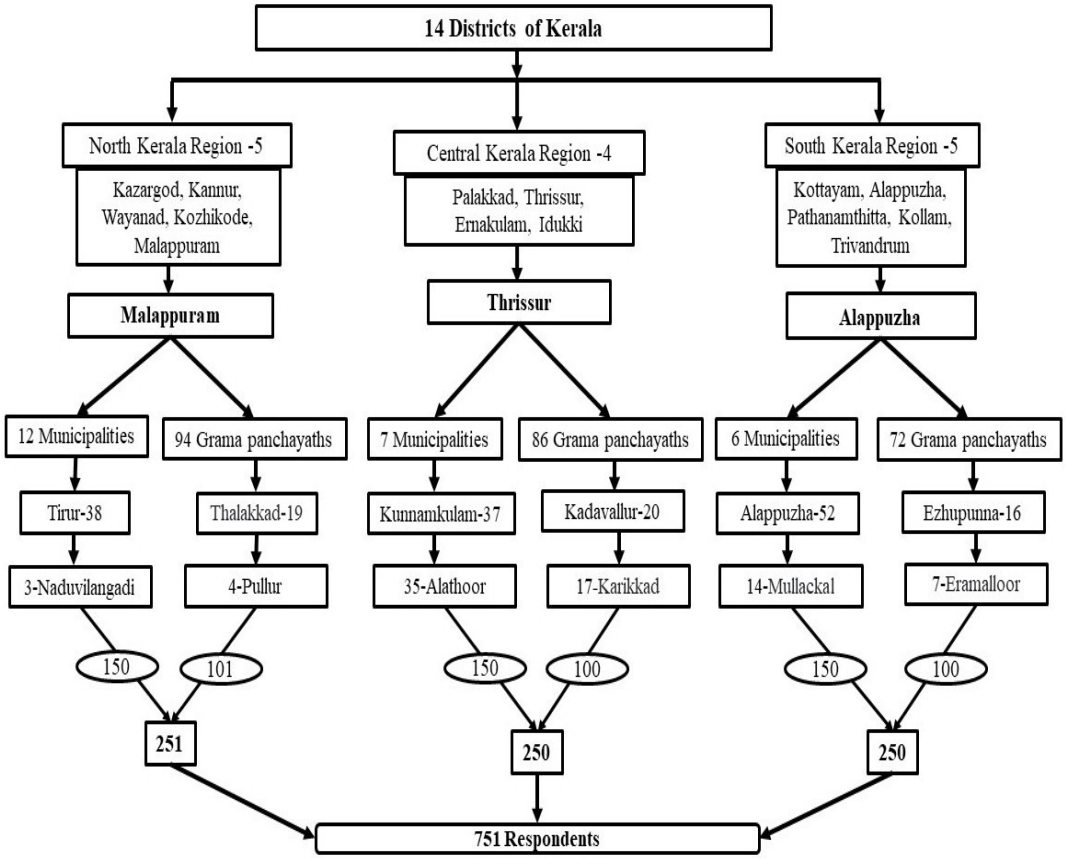
Malappuram district has twelve municipalities, from which Tirur municipality has been considered which has thirty-eight wards. The third ward of Naduvilangadi was randomly chosen from which 150 responses were collected. Malappuram district has ninety-four grama panchayats from which Thalakkad with nineteen wards was focused upon. The fourth ward Pullur was considered for collecting data systematically from 101 respondents to fulfill the sample size requirements. Thus, a total of 251 responses were collected from the district of Malappuram. The research area for Central Kerala was the Thrissur district, which has seven municipalities and eighty-six grama panchayaths. A random selection was made and Kunnamkulam municipality with thirty-seven wards was considered and the 35th ward, Alathoor was randomly chosen to get 150 responses. Likewise, Kadavallur grama panchayat was considered with twenty wards, and the seventeenth ward Karikkad was chosen to collect 100 responses. Therefore, the researcher collected a sum of 250 responses from the Thrissur district. Alappuzha district, which is located in South Kerala, has six municipalities out of which the Alappuzha municipality with fifty-two wards was randomly chosen. The fourteenth ward Mullackal was further concentrated upon to pool data from 150 customers. Out of the seventy-two grama panchayats in the Alappuzha district, Ezhupunna with sixteen wards was chosen at random and the study was then narrowed down to the seventh

ward Eramalloor to gather information from 100 respondents. A total of 250 responses were pooled from the district of Alappuzha.

Respondents were chosen from each selected ward to take part in the study in the final stage. The persons on the electoral roll were given the questionnaires to ensure a representative sample. The systematic sampling approach was put into practice using a sampling interval. Furthermore, every fifth individual on the electoral roll was contacted to participate in the study since the sample interval of five had been established. This methodological technique ensured an impartial selection of respondents and gave every person an equal chance to be included in the sample. The data for the final research purpose was carried out in between January 2022 to June 2022. Consequently, 251 responses were gathered from the district of Malappuram, 250 from Thrissur, and 250 from Alappuzha, thus, forming a total of 751 responses for conducting the research.

Figure 4.3

Sample Frame



4.8.3.4 Designing of Questionnaire

The researcher used the phrase "counterfeit products" in a wider sense since the goal of the questions at the time was to gauge how consumers felt generally about counterfeit goods across all product categories (De Matos et al., 2007). The techniques which were utilized to produce the questionnaire for the current study included the construction of the basic questionnaire, pretesting the same by a pilot study, refining of the questionnaire, final drafting of the instrument, and measuring the reliability and validity of the questionnaire. Information from numerous respondents was acquired at a certain point as the study was cross-sectional in nature. The purpose of this research is to determine the connections between the forces that influence the attitudes and intentions of consumers concerning counterfeit goods. Customers with diverse attitudes towards and intents to purchase counterfeit goods are evaluated over demographic differences. As a result, a descriptive research approach covering consumers of counterfeit products in Kerala has been chosen for the research. The research gathered descriptive information on the population's traits based on perception as well as cognitive, affective, and social motivating factors, and it offers explanations of the same in the context of non-deceptive counterfeit goods.

Respondents were requested to complete all three sections of the questionnaire and return it shortly after it was done. The respondents' age, gender, educational level, and annual income were all included in the first section's socio-demographic and economic data. By detecting any possible differences in views of counterfeit goods based on socio-economic variables, it offered insights relating to the perception of customers towards counterfeits. Additionally, depending on the information gathered through questionnaires, manufacturers of genuine goods may design anti-counterfeiting measures by evaluating the link between socio-demographic traits and consumers' impressions of counterfeits. The questions in the second section focused on counterfeit purchase factors exhibiting the distinguishing ability of the customers between the counterfeits and the genuine products, the type of counterfeit products they intend to buy and the nearby availability and accessibility that further induces them to form an inclination towards counterfeits. Questions about customer motives or driving forces such as cognitive, affective, and

social drivers along with the perceived value, attitude and purchase intention made up the third part of the questionnaire.

The variables that were chosen for the research were selected after carefully reviewing the body of existing studies and the identified objectives of the study. Each variable and sub-variable represents a certain aspect of the research. These factors were chosen in order to analyze relationships and effects in the context of the counterfeit segment in Kerala. The variables, sub-variables, and their nature are outlined below:

Table 4.1
List of variables used for the study

Variables and Sub-variables	Nature of Variables
Socio-demographic and Economic Factors: ➢ Gender ➢ Age ➢ Education Qualification ➢ Annual Income	Independent Variables
Counterfeit Purchase Factors: ➢ Distinguishing Ability ➢ Type of Counterfeit Products ➢ Nearby Availability	Independent Variables
Cognitive Drivers: ➢ Price Consciousness ➢ Price-Quality Inference ➢ Value Consciousness ➢ Perceived Risk	Independent Variables
Affective Drivers: ➢ Risk Averseness ➢ Integrity ➢ Personal Gratification ➢ Novelty-Seeking	Independent Variables
Social Drivers: ➢ Information Susceptibility ➢ Normative Susceptibility ➢ Status Consumption ➢ Social Influence	Independent Variables
Perceived Value	Mediating Variable
Attitudes towards Counterfeit Products	Mediating Variable
Novelty-Seeking Behaviour of Customers	Moderating Variable
Purchase Intentions towards Counterfeit Products	Dependent Variable

A five-point Likert scale was employed to gauge answers based on prior research. The questionnaire for the study was carefully created to ensure that the appropriate scales and measurements were utilised to evaluate the constructs of interest. Scales were selected based on well-established literature and past field research. The cognitive drivers comprise of Price Consciousness (PRC), Price-Quality Inference (PQI), Value Consciousness (VLC), and Perceived Risk (PRR). The affective drivers include Risk Averseness (RAV), Integrity (ITG), Personal Gratification (PRG), and Novelty-Seeking (NVS). The social drivers consist of Information Susceptibility (INS), Normative Susceptibility (NRS), Status Consumption (STC) and Social Influence (SOI). Further, the elements of Perceived Value (PRV), Attitude towards counterfeit products (ATT) and Purchase Intentions regarding counterfeits (PRI) were measured using the concerned validated scales. An overview of scales and sources is summarised in the following table.

Table 4.2
Research Instrument: Scales and Sources

Variables	Source	No. of Items
Price Consciousness	Bloch et al. (1993); Lichtenstein et al. (1990)	5
Price-Quality Inference	Huang et al. (2004); Lichtenstein et al. (1993)	4
Value Consciousness	Ang et al. (2001); Lichtenstein et al. (1990)	4
Perceived Risk	De Matos et al. (2007); Mitchell (1999)	6
Risk Averseness	Huang et al. (2004)	6
Integrity	Ang et al. (2001); De Matos et al. (2007); Kim et al. (2009)	4
Personal Gratification	Ang et al. (2001); Bloch et al. (1993); Wee et al. (1995)	5
Novelty-Seeking	Phau and Teah (2009); Wee et al. (1995)	4
Information Susceptibility	Ang et al. (2001); Bearden et al. (1989); Phau and Teah (2009)	4
Normative Susceptibility	Ang et al. (2001); Bearden et al. (1989); Phau and Teah (2009)	4

Variables	Source	No. of Items
Status Consumption	Eastman et al. (1997); Eisend and Schuchert-Guler (2006); Riquelme et al. (2012)	5
Social Influence	Huang et al. (2004)	3
Perceived Value	De Matos et al. (2007); Huang et al. (2004)	4
Attitudes towards Counterfeit Products	Budiman (2012); De Matos et al. (2007); Phau and Teah (2009); Wang et al. (2005)	6
Purchase Intentions	Ang et al. (2001); De Matos et al. (2007); Phau and Teah (2009); Ting et al. (2016); Wee et al. (1995)	10

Source: Secondary Data

4.8.3.5 Operational Definitions of the Variables

According to Staake et al. (2009), counterfeit products are unauthorized or unlicensed versions of the products infringing trademark rights. It is the low-priced imitations of highly demanded goods that typically look similar to the original but offer inferior quality. The operational definitions of the variables pertinent to the research are outlined below:

- **Price Consciousness**

According to Lichtenstein et al. (1993), price consciousness indicates the degree to which the consumer focuses exclusively on paying lower prices. Low price ignites the counterfeit market's growth to a great extent.

- **Price-Quality Inference**

The widely held belief that a product's price is positively connected with its level of quality across all product categories is known as the price-quality inference (Bearden et al., 1989) ie., higher-priced products are believed to possess higher quality than lower-priced products.

- **Value Consciousness**

Contrary to authentic products, counterfeits are thought to be of lower quality. Value-conscious consumers base their buying decisions on the value provided by it, with respect to its low price and slightly substandard quality. Consumers will assess the worth of the money they spend to buy the product and

many consumers consider counterfeits to be good value for their money (Bloch et al., 1993).

- **Perceived Risk**

Perceived risk is the level of perception regarding the presence of risk elements that will prevent customers from buying counterfeit products (Mitchell, 1999). Purchasing counterfeit items is viewed as a risky decision since buyers may endanger their own financial, social, or legal security.

- **Risk Averseness**

The tendency to avoid taking risks is known as risk averseness (Bonoma & Johnston, 1979) and it covers the various dimensions of risks such as psychological risks, financial risks, environmental risks, safety, and health hazards etc.

- **Integrity**

Integrity presents the level of the customer's moral standards and conformity to the law (Cordell et al., 1996). Integrity is determined by the factors of personal ethical values and standards and legal obedience possessed by an individual.

- **Personal Gratification**

Personal gratification is a sense of success or accomplishment, social recognition as well as acceptance, and enjoying better things in life (Ang et al., 2001). Personal gratification influences the purchase decision of consumers regarding counterfeit products.

- **Novelty Seeking**

Novelty-seeking is the search for change and distinctness because of their inquisitive nature (Hawkins et al., 1980). Novelty seeking is the curiosity of individuals to seek variety, difference, and the urge to try out something new.

- **Information Susceptibility**

Information susceptibility describes the customers' purchase decisions to make a purchase based on the expert opinions of others (Ang et al., 2001). Information susceptibility plays a vital role for consumers before buying counterfeit products, particularly those who have little information on the brands or categories of the products.

- **Normative Susceptibility**

Consumers who have normative susceptibility would purchase a product based on what they assume others would expect or want them to buy (Ang et al.,

2001) ie., customers' purchase decisions are based on the notions of what would please others.

- **Status Consumption**

Status consumption is the evident consumption of consumer goods that represent status for the individual, family, close friends, or any other significant people (Eastman et al., 1997). Status consumers seek to possess brands that reflect their self-identity and are more status conscious.

- **Social Influence**

Social influence is the effects that others such as family members and friends have on an individual customer's attitude (Wang et al., 2005). The suggestions from the group acting as a reference have an impact on people's decisions to buy a product whether it is authentic or counterfeit.

- **Perceived Value**

The customers' emotional assessment regarding the worth of the good or service is known as perceived value. Perceived value had an encouraging impact on consumers' attitudes concerning counterfeit luxury products and their inclination to buy them as per the research findings of Toklu and Baran (2017).

- **Attitudes Towards Counterfeit Products**

Schiffman and Kanuk (1997) defined attitude as a learned predisposition to behave in a consistently favorable or unfavorable manner with respect to a given subject matter or context. The more favourable attitude towards counterfeits, the more probability that the customers would purchase counterfeits.

- **Purchase Intentions**

Purchase intention is the customer's tendency towards buying and using a product or service, in a given circumstance (Dodds et al., 1991). The research utilised the term to denote the buyer's intent to buy and experience counterfeit products.

4.8.3.6 Pilot Study

A pilot study, which is often a small-scale study that aids in designing and modifying the major study, is the initial phase of the complete research methodology. Prior to the final data collection, a pilot study among potential customers was conducted to assess the reliability and validity of the research

instrument. During the pilot survey, every aspect of the questionnaire was evaluated on a sample of 90 respondents from Thrissur district in the state of Kerala.

The purpose of the pilot research was to assess the validity of the questionnaire, identify any potential flaws or inconsistencies if any, and address the necessary corrections prior to the generation of the final data. The respondents were given explanations of each question before completing the questionnaire, which they requested to do independently. The researcher supported those respondents who needed further explanation with the terms used in the research instrument as well as the terminologies relating to the counterfeit context.

Table 4.3

Pre-testing of Questionnaire

Constructs	No. of Items	Cronbach's Alpha	No. of items deleted
Price Consciousness	5	0.873	Nil
Price-Quality Inference	4	0.799	Nil
Value Consciousness	4	0.845	Nil
Perceived Risk	6	0.829	Nil
Risk Averseness	6	0.752	Nil
Integrity	4	0.806	Nil
Personal Gratification	5	0.820	Nil
Novelty-Seeking	4	0.921	Nil
Information Susceptibility	4	0.932	Nil
Normative Susceptibility	4	0.736	Nil
Status Consumption	5	0.774	Nil
Social Influence	3	0.902	Nil
Perceived Value	4	0.897	Nil
Attitudes towards Counterfeit Products	6	0.964	Nil
Purchase Intentions	10	0.891	Nil

Source: Primary Data

The scale proved reliable with respect to internal consistency because all Cronbach's alpha values were over 0.7 (Nunnally, 1967). This demonstrated that the information gathered utilizing the aforementioned construct was reliable and solid and devoid of structural flaws. Further, it demonstrated that the data gathered for the current study was dependable and produced consistent findings when tested repeatedly, which supported that the data appropriately reflected the research context under study.

Therefore, it may be used as a basis for additional investigation and interpretation to arrive at reliable findings that may be employed by various stakeholders in the research area.

4.8.4 Final Reliability and Validity of the Co-variance Based Confirmatory Factor Analysis (CB-CFA) Models

Confirmatory Factor Analysis (CFA) is a statistical method for ascertaining the factor structure of an identifiable set of observed data. The relationship between observed variables and the underlying latent components is investigated by the researcher using CFA (Suhr, 2009). The variables need to have enough validity and reliability. Utilizing the following tools, the measurement model is evaluated:

4.8.4.1 Composite Reliability (CR)

A statistical tool for evaluating the internal consistency of a group of items or variables in a research project is called Composite Reliability (CR). Composite reliability (CR) is used to evaluate a construct's overall dependability as well. The range of values is 0 to 1. According to Hair et al. (2010), composite reliability scores over 0.7 are regarded as excellent. When values are lower than 0.6, internal consistency is deemed insufficient.

4.8.4.2 Construct Validity

The degree to which a measuring tool properly assesses the theoretical construct or notion designed to measure is referred to as construct validity. Two forms of validity that are frequently applied in research are convergent validity and discriminant validity.

- **Convergent Validity**

The degree of similarity or shared variance between the observed variables or indicators of a certain construct is known as convergent validity. It gauges the degree to which these variables converge. Concerns regarding convergent validity during the validity evaluation, according to Hair et al. (2010), show that the observable variables do not sufficiently describe the latent component. According to Malhotra and Peterson (2001), the AVE is a more exacting gauge of convergent validity than even the conservative CR.

To assess convergent validity in the current inquiry, the researcher used the Average Variance Extracted (AVE). Through the use of standardized factor loadings, the AVE computation is generated. According to Hair et al. (2010), the AVE threshold value needs to be more than 0.5. Convergent validity can also be assessed using item factor loadings. The standardized factor loading criteria in this study are established at a value larger than 0.5 to determine item validity. Standardized factor loadings and AVE values must both be more than 0.5 in order for convergence to be considered sufficient.

- **Discriminant Validity**

The degree to which a specific concept is actually different from the others is referred to as discriminant validity. A high discriminant validity construct is regarded as noteworthy since it encompasses phenomena that are not included in other constructs. The variables are closely linked to variables from other constructs if the discriminant validity analysis does not yield the desired findings. This shows that some factors other than the hidden variable's own observable variables can explain the latent variable more effectively.

The Fornell and Larcker (1981) criterion was used by the researcher as a strict way to evaluate discriminant validity. In the analysis, the correlations between the latent variables and AVE's square root are compared. It is recommended that each construct's square root of the average variance extracted (AVE) be higher than its correlation with any other construct's latent variables. It is possible to establish discriminant validity by using this method.

Table 4.4

Final Reliability and Validity of CFA Model

Constructs	Cronbach's Alpha	AVE	Composite Reliability
Price Consciousness (PRC)	0.88	0.58	0.88
Price-Quality Inference (PQI)	0.84	0.59	0.85
Value Consciousness (VLC)	0.85	0.62	0.86
Perceived Risk (PRR)	0.91	0.65	0.92
Risk Averseness (RAV)	0.91	0.65	0.92
Integrity (ITG)	0.85	0.60	0.86
Personal Gratification (PRG)	0.89	0.61	0.89
Novelty-Seeking (NVS)	0.87	0.63	0.87
Information Susceptibility (INS)	0.89	0.65	0.90
Normative Susceptibility (NRS)	0.86	0.63	0.87
Status Consumption (STC)	0.87	0.59	0.87
Social Influence (SOI)	0.93	0.84	0.94
Perceived Value (PRV)	0.84	0.59	0.85
Attitude towards Counterfeit Products (ATT)	0.88	0.58	0.89
Purchase Intentions (PRI)	0.95	0.66	0.95

Source: Primary Data

All of Cronbach's alpha values are over 0.8, indicating the reliability of all the items used to measure the constructs. All the constructs are internally consistent given the Composite Reliability scores are greater than 0.80. Further evidence that the constructs are valid is provided by the Average Variance Extracted values, which likewise outweigh the suggested limit of higher than 0.5. Additionally, it shows that the elements are dependable and consistent in their capacity to identify the intended variables.

4.8.4.3 Normality Analysis of Data

A normality test assesses whether a sample of data is representative of a population that has a normal distribution. It is often carried out to see if data collected for the study exhibit a normal distribution. If the data are normally distributed, the

scores will typically cluster around the mean and the total count of observations on both sides of the mean will be equal in value. The normality of the current data was assessed by the researcher through the utilisation of a Kolmogorov-Smirnov test Sarstedt and Mooi (2011). The table given below depicts the result of the Kolmogorov-Smirnov test employed for the present data in the context of counterfeit products in Kerala.

Table 4.5

Kolmogorov-Smirnov Test: Measuring Normality of the Data

Sl. No.	Constructs	Kolmogorov-Smirnov Test	
		Statistic	Sig.
1	Price Consciousness	0.020	0.200*
2	Price Quality Inference	0.021	0.200*
3	Value Consciousness	0.024	0.200*
4	Perceived Risk	0.018	0.200*
5	Risk Averseness	0.021	0.200*
6	Integrity	0.019	0.200*
7	Personal Gratification	0.023	0.200*
8	Novelty Seeking	0.018	0.200*
9	Information Susceptibility	0.018	0.200*
10	Normative Susceptibility	0.021	0.200*
11	Status Consumption	0.019	0.200*
12	Social Influence	0.021	0.200*
13	Perceived Value	0.020	0.200*
14	Positive Attitude	0.023	0.200*
15	Purchase Intention	0.019	0.200*

** This is a lower bound of the true significance*
Source: Primary Data

The table presented demonstrates that the P values obtained from the Kolmogorov-Smirnov test exceed the predetermined significance level of 0.05. This implies that the data pertaining to each construct exhibits characteristics that match a normal distribution. Thus, the data has been proved to be normally distributed.

4.8.5 Statistical Tools and Software Packages for Data Analysis

The study is analytical since it developed hypotheses and evaluated them using different statistical tools and techniques to determine the impacts of consumer

perception and reasons, degree of attitude, and intent to purchase counterfeits. It provided an informative and thorough overview of the study by organizing the data in an accessible and cohesive manner.

- To investigate the cognitive, affective, and social drivers of the customers in Kerala that influence them to buy counterfeit products, mean, standard deviation, one sample t test, independent t test and ANOVA with Tukey HSD's post hoc analysis are used with the help of IBM SPSS 27 software package.

- To examine the level of perceived value, positive attitude and purchase intentions of counterfeit products among customers in Kerala, Quartiles, Percentage Analysis, Chi-Square test for goodness of fit and Chi-square test for association are employed with the help of IBM SPSS 27 software package.

- To explore the effects of various drivers of counterfeit purchases on attitude formation and purchase intentions among customers in Kerala, Quartiles, Percentage Analysis and Chi-square test for association, Co-variance Based Confirmatory Factor Analysis (CB-CFA) and Structural Equation Modelling (SEM) techniques were adopted with the help of IBM SPSS 27 and IBM SPSS AMOS graphics 21 software package.

- To examine the mediating effect of positive attitude and perceived value on the association between drivers of counterfeit buying and purchase intention, Structural Equation Modelling (SEM) techniques and bootstrapping procedures were employed with the help of IBM SPSS AMOS Graphics 21 software package.

- To find out the moderating effect of novelty-seeking behaviour on the effect of price-quality inference on perceived value and purchase intentions, Structural Equation Modelling (SEM) technique and simple slope curve analysis for testing the significance of interaction effect were used with the help of IBM SPSS AMOS Graphics 21 and MS Excel software package.

Thus, the suitable statistical tools have been adopted to examine the five research objectives. The following explanation belong to each statistical tool applied by the researcher for the analysis of the data pertaining to the present research:

i. Mean

The statistical measurement known as the mean represents the average value of a set of data. The mean provides a measurement of central tendency and is usually used to determine the normal or average result of a variable. The mean is widely used for comparisons and conclusions and serves as the foundation for statistical tests that assess the significance of differences between groups, such as t-tests and ANOVA. To investigate the cognitive, affective, and social drivers along with the perceived value, customer attitude and purchase intentions towards counterfeits, mean has been employed.

ii. Standard Deviation

A standard deviation is a statistical tool used to assess the level of volatility or dispersion in a set of data values. The amount of deviation from the mean that the data points exhibit is shown. It frequently shows up in descriptive statistics and is crucial for statistical research, such as testing hypotheses, calculating confidence intervals, and determining the importance of group differences. The standard deviation can be used to interpret the data's divergence from the mean. The standard deviation decreases with increasing data point proximity to the mean and increases with increasing data variability or dispersion. Standard deviation has been employed to investigate the cognitive, affective, and social drivers along with the perceived value, customer attitude and purchase intentions towards counterfeits.

iii. One Sample t-test

To determine if the mean of one sample significantly deviates from the population mean that is hypothesized, a statistical test known as a one-sample t-test is employed. It helps researchers draw conclusions about the population from the available sample data. The question of whether the actual sample mean differs considerably from the anticipated population mean is answered based on the hypothesis.

iv. Independent t-test

The independent t-test is a statistical procedure used to compare the average values of two distinct and unrelated independent groups. It determines whether there is a substantial difference in the means of the two groups. The test makes it easier to assess group differences and whether the differences found are statistically significant or not.

v. ANOVA with Tukey's HSD Post-Hoc Analysis

Comparing the means of three or more groups is done statistically using an ANOVA. It assesses the null hypothesis, according to which all group means are equal in value. A significant p-value is found by the ANOVA test when the value falls below an alpha cut-off of 0.05. It has been inferred from the cut-off specification that at least some of the group means are considerably different from one another. If the ANOVA test reveals significant differences, a post-hoc analysis is carried out to assess if each of the group means vary significantly from one another. Tukey's HSD (Honestly Significant Difference) test is a common post-hoc analysis carried out to determine if there are statistically significant differences between the group means, further, helps in assessing every paired comparison that is technically possible and logically feasible.

vi. Quartile Settings

Statistical measures called quartiles are used to split collected information into four equal halves and three levels by the quartiles, each of which represents a quarter of the entire data. Quartiles are particularly helpful for demonstrating how the observations are distributed when combined with additional metrics like the range, the lowest and highest values, and the interquartile range. To evaluate the levels of the cognitive, affective, and social drivers along with the perceived value, customer attitude and purchase intentions towards counterfeits, quartile settings has been used.

vii. Percentage Analysis

Percentage analysis is the technique of representing values or quantities as a percentage of a total or a base value. It is necessary to determine the share or proportion of each element in relation to the total or a particular benchmark. It is

also known as relative analysis or proportional analysis. Row-wise as well as column-wise percentages are computed to know the relative proportion of customer motives in accordance with the elements of customer perception regarding the value of counterfeit goods, attitude formation and purchase intentions.

viii. Chi-Square Test for Goodness of Fit

A statistical analysis which is performed to determine if observed categorical data closely resembles an expected distribution or whether there are notable differences between observed and projected frequencies is known as Chi-Square Test for Goodness of Fit. It's typically used to check if a sample fits a particular theoretical or expected distribution. The test is based on comparing the actual frequencies for each category or degree of a categorical variable to the expected frequencies.

ix. Chi-square Test for Association

The Chi-Square test for association is a statistical test used to determine whether there is a statistically significant relationship between the two category variables. It assesses if there is a significant difference between the results obtained from the measurement of the two parameters and those that the independence hypothesis would have anticipated.

x. Co-variance Based Confirmatory Factor Analysis (CB-CFA)

Covariance-based structural equation modelling (CB-SEM) is a fairly sophisticated model that is gradually demonstrated by both graphs and numerical findings in accordance. Confirmatory factor analysis (CFA) is a statistical method for confirming the factor structure of a collection of observed data. The relationship between the variables that are observed and the underlying latent constructs can be tested using CFA.

xi. Structural Equation Modelling

It is a multivariate analytical approach that uses factor analysis and regression to assess both the structural model and the quantitative model

simultaneously. In SEM, identifying and valuing constructs comes first. Constructs are used to represent unobservable concepts or properties and are used to infer conclusions about observed variables. SEM provides a comprehensive approach to investigate intricate interactions and supporting theoretical aspects. It allows for the concurrent analysis of measurement and structural elements, which improves understanding of the causal relationships between factors.

xii. Bootstrapping Procedures

The bootstrapping approach is used in statistics to determine parameter estimation variability and unpredictability as well as to estimate the sample distribution of a statistic. It requires making a number of replicates using replacement from the original data in order to generate a simulated population. These resamples are then used to compute the statistic of interest several times. The current study calculates the indirect effect values using the bootstrapping method with 5,000 sample replications, and the IBM-SPSS-AMOS Graphics -21 software package to investigate the mediating effects of a particular pathway.

xiii. Simple Slope Curve Analysis

As a follow-up to modelling, a simple slope analysis aids in the analysis and interpretation of significant interactions. The technique is frequently used to examine interactions between two numerical predictors. Simple slope test includes the regression equation for one predictor at particular values of a second predictor, which is typically referred to as a moderator.

4.9 Limitations of the Study

The research was focussed to examine the perception of customers towards counterfeits as well as their motives behind attitude formation and intention to buy the counterfeits in the background of the state of Kerala. The availability of literature in the field of counterfeit consumption is scarce in the Kerala context even though the problem is severe and several seizures have been marked in terms of counterfeit products. The other limitations of the study are pointed out below: -

- The researcher has given due consideration to the three driving forces such as cognitive, affective, and social drivers. There may be other driving forces as well which are not examined in the study. Also, the demand side of the

counterfeit products was the focal point of the study. The supply-side components were not taken into account.

- The state of Kerala serves as the only focus of the current investigation. Because of the social and cultural variations, the inferences may not be relevant or applicable to other parts of the country.
- The researcher does not evaluate the opinions of customers regarding deceptive counterfeit items since the researcher has concentrated on non-deceptive counterfeit products. Customers who are deceived by the counterfeit version of the authentic products are victims of deceptive counterfeiting practices.
- The current study only contained data from a small geographical area, since a representative sample was collected from three districts in Kerala state. It was owing to limits in terms of time and resources connected with the collection of data and analysis of the same.
- The structured nature of the research instrument may have prevented respondents from expressing their ideas as freely as they would have intended. Personal prejudice and bias of respondents are also a possibility while completing the questionnaires.

4.10 Conclusion

This chapter gives a thorough review of the processes and techniques applied in the present research. The research problem, research concerns, and research objectives were described in detail in the chapter, which helped to direct the selection of the best research methodology. The study's goals and hypotheses were laid out in a conceptual framework. By contemplating carefully, a number of research procedures, such as data collecting, data analysis, and sampling techniques, the study's resilience and validity were guaranteed. The use of various tools to examine the study objectives was also highlighted. Limitations were also acknowledged and taken into consideration in order to guarantee the reliability and validity of the study's findings.