

Major Research Project Dissertation
on
Consumer Decision Making in Souvenir Purchases:
A Multi-Attribute Analysis in the Indian Market

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DECLARATION

This is to certify that we have completed the “Major Report Project Dissertation” report under the guidance of Dr. Gaganmeet Kaur Awal in partial fulfillment of the requirement for the award of degree of Master of Business Administration at University School of Management & Entrepreneurship, Delhi Technological University. This is an original piece of work & we have not submitted it earlier elsewhere.

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ABSTRACT

An analysis of Indian customers' souvenir-buying habits produced a number of important outcomes. Social media has a big impact on decisions about travel and souvenirs. Social media is more influential on younger consumers, particularly those between the ages of 18 and 35. Aesthetics, durability, and authenticity are important considerations when buying souvenirs. Preferably, locally created souvenirs made by artists. The most popular things are those that are priced in the middle. Making decisions also involves considering availability. It was confirmed by the Analytical Hierarchy Process how important authenticity and durability are. These findings highlight the consequences of social media and highlight the nuanced decisions made by Indian customers. In order to satisfy consumer wants, businesses should modify their marketing strategy in light of these observations. As a result, while purchasing souvenirs, Indian customers place a high value on authenticity, durability, and aesthetics, with social media greatly influencing their choices.

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CHAPTER 1

INTRODUCTION

In the contemporary era, where social media is practically everywhere, it influences numerous aspects of daily life, such as choosing where to vacation and what souvenirs to buy. Indian customers are known for their meticulous assessment and preference for determining legitimacy when purchasing souvenirs. The current research proposes to explore the impact caused by social media on travel selections and souvenir purchases made by Indian consumers, given its significant role in influencing consumer behavior.

In the context of India, this research seeks to figure out whether social networking sites have a major effect on travel decisions and souvenir purchases. Indian customers are known to be selective, thus they are required to carefully consider a number of considerations prior to making a purchase. The goal of the study is to better understand how travel preferences, social media usage, and the reasons behind souvenir purchases across a range of age groups in the Indian market interact.

A comprehensive questionnaire was designed to gather insights into the demographic profiles of respondents, their travel frequency, and the extent to which social media platforms influence their travel motivations. The survey also delved into the usage patterns of famous social networking platforms such as WhatsApp, Instagram, Facebook, Snapchat, Twitter, YouTube, Pinterest, Hike, and Reddit among Indian consumers.

Furthermore, the purpose for buying souvenirs—as gifts or mementos—as well as the willingness to spend for items which match their tastes were other topics of

discussion of the respondents. The questionnaire also looked for attributes that Indian customers thought were essential to consider while choosing souvenirs. These characteristics—price, authenticity, availability, uniqueness, durability, and aesthetics—were thoughtfully selected to symbolize the most important factors to take into account when buying souvenirs.

To ascertain the significance of these attributes and their impact on purchasing decisions, a choice-based conjoint analysis was conducted. This analysis provided valuable insights into the relative importance of each attribute and how consumers prioritize them in their decision-making process. However, to measure the extent of importance attributed to these attributes, the study employed the Multi-Criterion Decision Making technique known as Analytical and Hierarchical Processing.

With the combination of statistical techniques like multiple linear regression, correlation analysis, choice-based conjoint analysis, and multi-criteria decision making, this research aims to deliver an in-depth understanding of the complex relationships that base Indian consumers' purchasing behavior for souvenirs. It is believed that the results would make a noteworthy involvement to the disciplines of social media studies, marketing research, and consumer behavior, with useful ramifications for companies doing business in India.

CHAPTER 2

LITERATURE SURVEY

When performing the literature review, we used the article "Social media picture posting and souvenir purchasing behavior: Some initial findings." Although this work provides informative details regarding the relationship between visitors' usage of social media and their propensity to purchase souvenirs, it has many shortcomings that the study attempts to rectify. A significant limitation is the absence of a thorough demographic analysis, which may offer a better knowledge of the ways in which various population segments are impacted by social media while making vacation and souvenir selections. Furthermore, the article passes over the individual social media sites that travelers utilize and how these platforms might affect their behavior in numerous capacities. Furthermore, although the research discusses reasons for buying souvenirs, it doesn't examine Indian consumers' particular reasons, which can be impacted by certain cultural or religious considerations. Our research aims to overcome these constraints by recommending a thorough investigation of the influence of social media on the travel and souvenir choices of Indian consumers. Through the specific consideration of demographic characteristics like income levels, travel frequency, and age groups, our research provides an in-depth understanding of the ways in which social media affects various Indian population segments. Additionally, our study looks into how different social media platforms are used and how they affect travel choices and the reasons behind buying souvenirs in different ways. Furthermore, our study looks into how different social media platforms are used and how they affect travel choices and the reasons behind buying souvenirs in different ways. Furthermore, our study goes deeper into the reasons Indian tourists buy souvenirs, including for

cultural and religious considerations that can affect their choice of items. Using choice-based conjoint analysis and Multi-Criterion Decision Making techniques, the research provides actionable insights for marketers and tourism operators to better tailor their offerings to the preferences of Indian consumers. It does this by thoroughly analysing the attributes that are considered important in souvenir purchases and the degree of their importance. In summary, our research significantly advances our knowledge of the complexity driving souvenir purchase decisions in the context of changing digital ecosystems by filling up these gaps and providing more in-depth insights.

We referenced the paper "A Choice-based conjoint analysis of social media picture posting and souvenir purchasing preference: A case study of social analytics on tourism" when completing the literature survey for the research. The research conducted attempts to address some of the limitations of this paper, despite the fact that it provides valuable insights into how visitors' tastes for souvenirs in Luoyang, China, relate to their social media activity. The study's primary weakness stems from the sample's lack of demographic diversity, as it only considers visitors to a certain destination. Furthermore, the study primarily examines the frequency of sharing trip photos on social media and how that correlates with preferences for souvenirs, excluding other variables like travel and souvenir purchasing motivations. By concentrating on Indian consumers in a variety of demographic groups, the research goes beyond these constraints and offers a more thorough understanding of how social media influences travel preferences and souvenir purchases. The research closes a gap in the literature by specifically examining how social media usage affects Indian consumers' travel preferences and souvenir purchases. Furthermore, the study explores the reasons Indian consumers purchase trips and souvenirs, providing insights into elements like memory preservation and gift-giving that could affect consumer behaviour. A deeper comprehension of the intricacies behind consumer choices in the Indian market is made possible by this inclusive approach. Additionally, the study makes use of sophisticated analytical

methods like Multi-Criteria Decision Making (MCDM) to gain a deeper understanding of customer preferences. This research offers practical information for souvenir manufacturers and sellers by utilizing Analytical and Hierarchical Processing to provide a comprehensive examination of the value of various features and their impact on consumer preferences. Also, in light of the cultural distinctions between China and India, this study considers the particular cultural backdrop of the Indian market, offering insights that might not be found in research done in other areas. Overall, this research greatly advances our knowledge of consumer behaviour in the era of digital media by overcoming these constraints and providing a more thorough investigation of social media's impact on Indian consumers' decisions about travel and souvenir purchases.

The cited the publication "The Influence of E-Commerce, Product Prices, and Product Design on Purchasing Decisions in Souvenir Shop Tauko Medan" when completing the literature survey for the study. Although this study offers insightful information about factors influencing decisions to buy in a particular setting, it has certain shortcomings that this research attempts to rectify. One of its primary shortcomings is that it only considers internet-based commerce, product prices, and product design, omitting the impact of social media on travel preferences and souvenir purchases. The study closes this gap by specifically examining how Indian consumers' decisions about travel and souvenir purchases are influenced by social media. Furthermore, the research combines quantitative and qualitative approaches, enabling a more thorough understanding of customer behaviour and preferences, whereas the referred study uses a quantitative descriptive method. Furthermore, although the research article examines how e-commerce, product costs, and product design affect buying decisions, it does not thoroughly examine the precise variables influencing the purchase of souvenirs. In order to investigate the relative significance of various characteristics, including cost, authenticity, uniqueness, durability, and aesthetics, in the decision-making process around souvenir purchases, the research employs a choice-based conjoint analysis. The comprehensive examination offers sophisticated perspectives on the elements

impacting Indian consumers' purchases of souvenirs, augmenting the pragmatic significance of the discoveries. Overall, by addressing the limitations of the referenced study and providing a better comprehension of how customers behave and preferences in the Indian market, the research offers a significant contribution to the existing literature on travel decisions and souvenir purchases.

When performing our literature review, we used the work "Motivational Typology of Online Food Souvenir Shoppers and Their Travel-Related Intentions." This study has certain shortcomings that the research attempts to overcome, even if it offers insightful information about why customers buy food souvenirs online and how to segment consumers based on their motivations. One significant drawback is that research only looks at the reasons behind online food souvenir purchases, ignoring Social networking site effects on consumers trip choices and souvenir purchases. By specifically analysing the influence of different social media platforms on travel preferences and souvenir purchases, the research closes this gap and provides a more comprehensive understanding of consumer behaviour in the context of tourism and commerce. Furthermore, although the cited study sheds light on the objectives and motives of food souvenir buyers who purchase online, it skips over the particular characteristics that buyers value most when buying mementos. By using the Analytical and Hierarchical Processing approach and a choice-based conjoint analysis to measure the relative relevance of characteristics like pricing, authenticity, uniqueness, durability, and aesthetics, the research fills this gap. For merchants and marketers looking to better cater their products to consumer tastes, this thorough investigation offers practical insights. Furthermore, the Indian market is the focus of our research, providing insights into a distinct consumer base with its own cultural quirks and preferences. The linked paper provides insightful analysis from a Taiwanese perspective, but the conclusions might not be applicable to the Indian market. This research offers a more pertinent and focused examination of consumer behavior by focusing on Indian customers, increasing its relevance and practical usefulness. In addition, compared to traditional survey methodologies, the

study methodology—which combines convenience sampling with online surveys administered over many social media platforms—allows for a bigger and more varied sample size. This strengthens the data's dependability and broadens the applicability of the findings, adding to the body of knowledge on consumer behavior in the context of travel and souvenir shopping.

2.1. Problems & Formulation

The shortcoming in understanding of how social media affects Indian consumers' decisions about travel and souvenir purchasing is the issue our study attempts to address. While current research sheds light on a number of consumer behaviour features related to shopping and tourism, little is known about how social media platforms affect the travel preferences, reasons for travel, and souvenir-buying behaviours of Indian consumers in particular. By answering such a void, our study aims to offer insightful information about how social media influences travel choices and souvenir purchases. This will have beneficial implications for marketers, merchants, and travel agencies who want to successfully reach and interact with Indian consumers in the digital era. The influence that the challenge of analysing Indian customers' souvenir-purchasing behaviour might have on businesses and advertising firms involved in the Indian souvenir industry is the driving force behind this method. Understanding the complexities of consumer behaviour is essential for formulating profitable marketing strategies and tailoring product offers to fit customer preferences. Through exploring this field of research, businesses can get important knowledge about the elements that influence consumer choices, improving their capacity to compete and make a profit.

CHAPTER 3

RESEARCH METHODOLOGY

Through the aforementioned research objectives, this research seeks to provide a thorough insight of the souvenir-buying behaviour of Indian consumers. Initially, the study examines the influence of social media on consumer behaviour to determine how social networking sites influence consumers' purchasing decisions. Since social media has a significant impact on consumer preferences and behaviours in the modern online environment, it is essential to examine how it affects souvenirs purchases. Furthermore, by identifying the underlying reasons why people purchase souvenirs, the research attempts to find the factors and motives that shape consumer decisions. Individual preferences, cultural significance, and societal dynamics all have an important effect on consumer behaviour. Organizations need to understand these factors in order to appropriately tailor their offerings. Also, the research implements choice-based conjoint analysis to rank and identify the essential factors that influence consumers' choice of souvenirs. Measuring the importance of attributes such as price, authenticity, aesthetic, durability, availability and uniqueness can help associations develop new products and advertising campaigns, as consumers' priorities are predicted to change. Similarly, by applying the Multi-Criteria Decision Making technique by Analytical and Hierarchical Processing, the research attempts to accurately assess the influence of these characteristics on souvenir purchases. This methodology makes it easier to understand how various attributes interact with customer preferences as it quantifies the factors which are preferred by the consumer while purchasing souvenir. In the long run, through providing recommendations on advertising strategies based on the research's findings, companies and vendors in India's souvenir industry can gain beneficial knowledge to boost their competitive edge and profits. Organizations that use social media platforms and match their strategy to customer preferences can

maximize their market opportunity and efficiently communicate with those they want to reach. The fundamental problem our study attempts to solve is the lack of knowledge on the influence of social media on the travel and souvenir purchasing decisions of Indian consumers. This understanding is vital for companies and marketers that want to interact with Indian consumers in the age of social media. With this information, they can create successful marketing plans and customize their product offers to suit the tastes of their target market.

We implemented the earlier procedure by doing the steps listed below: We started out with the following four variables: price, uniqueness, availability, and aesthetic appeal. However, as we conducted our research, we realized that two more factors, authenticity and durability, may have a significant impact on souvenir choices. Then, we created a comprehensive survey to collect data on respondents' travel history, purchasing behaviours, willingness to pay, and overall preferences in addition to their demographics. After gathering the data, we used IBM SPSS Statistics' choice-based conjoint analysis to determine the most significant variables affecting Indian customers' decision-making. We were able to determine the relative significance of each attribute in customer decisions courtesy to this investigation. After that, we used Hierarchical and Analytical Processing methods in the Multi-Criteria Decision Making (MCDM) process. We were able to gauge the influence of several characteristics on decisions about purchasing souvenirs because to this method, which gave us a comprehensive understanding of how these variables interact with consumer preferences.

3.1. Data Collection

We started our research with a comprehensive data collection process. We introduced two more attributes—authenticity and durability—to an already conducted research that had identified four key attributes: price, uniqueness, availability, and aesthetics. This increased the viability of our analysis. With these modifications, we aim to boost the quality of our research and provide

an increased understanding of all the variables impacting Indian consumers' decisions to purchase souvenirs. We thoughtfully developed a thorough questionnaire to collect relevant details from respondents. The objective of the survey was to obtain wide-ranging demographic information such as age, professional background, degree of education attained, employment status, employment status, monthly income, and use of social media, including which specific platforms were used. We also gathered information on responders' travel behaviours, including how frequently they travelled, what factors drove their preference of destinations, and whether social media had an indispensable part in their decision to travel. The study also asked about the purchasing behaviours of respondents in regards to souvenirs, including if they did so, why they did so, and what elements they thought were crucial to consider. We asked them questions to find out how willing they were to pay for souvenirs and what attributes they would generally prefer in general. After the questionnaire was finished and spread out, we were able to get answers from 119 people. Since this sample offered a wide variety of data, we were able to conduct a detailed analysis of the several factors impacting Indian customers' decisions to purchase souvenirs. Our analysis, that attempts at understanding the complex nature of souvenir purchase and the influence of social media on these decisions, is based on the comprehensive demographic and behavioural data obtained through this survey.

3.1.1. Attribute Definitions

We evaluated the influence of six important characteristics on Indian customers' souvenir-buying behaviour in our study. To facilitate an exhaustive analysis, each attribute was given a set of categorical values. The meaning of each attribute and its categories are provided below:

Price: This attribute was categorized into three levels based on the monetary value of the souvenirs:

Low: Souvenirs priced at Rs. 500 or less.

Medium: Souvenirs priced between Rs. 501 and Rs. 1,000.

High: Souvenirs priced at Rs. 1,001 or more.

Authenticity: The authenticity of a souvenir was divided into three categories:

Low: Mass-produced items.

Medium: Items sourced directly from historic sites.

High: Handcrafted items created by local artisans.

Aesthetics: This attribute evaluated the visual appeal of the souvenirs and was categorized as follows:

Low: Souvenirs with bold colours and simple, modern appeal.

Medium: Souvenirs with neutral colours, exhibiting a fancy yet historic appearance.

High: Souvenirs with vibrant colours and intricate, unique designs.

Uniqueness: The uniqueness of the souvenirs was assessed with three distinct categories:

Low: Common designs that are widely available.

Medium: Limited edition designs that are less common.

High: One-of-a-kind items that are unique.

Durability: This attribute was categorized based on the expected lifespan and durability of the souvenirs:

Low: Non-durable items with a short lifespan.

Medium: Semi-durable items with moderate longevity.

High: Major durable items with a long lifespan.

Availability: The ease of finding the souvenirs was categorized into three levels:

Low: Limited edition items that are rare.

Medium: Items found in some places but not widely available.

High: Items that are found almost everywhere, making them highly accessible.

3.2. Choice Based Conjoint Analysis

A thorough technique for analyzing new products in a market that is competitive is conjoint analysis. With the aid of this tool, you may complete the analysis of the findings that follow the gathering of responses from a representative sample of the population. This is the fourth step of the analysis, which comes after the features have been determined, the design has been made, and the individual responses have been obtained. Individuals using CBC models can select from a variety of profile options. As a result, everyone has a variety of options (we will choose a product from a number of items developed). These choices are analyzed using a multinomial logit model that is based on a specific conditional logit model. Conjoint analysis is a highly effective technique for figuring out what customers want and how to price and produce new products. It enables marketers to explore the complex trade-offs customers make between various product attributes and prices. It appears that Knowledge Excel provides a comprehensive set of conjoint analysis solutions suited to different corporate requirements. Their ability to streamline the application process and offer customized solutions is anticipated to facilitate enterprises' ability to more effectively extract relevant insights from complex customer data. To execute out the conjoint analysis based on preferences for our research, we imported all of the responses into a

workbook in Microsoft Excel. We opted to use IBM SPSS Statistics software for this analysis. The process began by importing the Excel data file into SPSS. This was done by navigating to "Files," then "Data," and selecting the relevant Excel workbook containing the survey responses. Once the data was successfully imported, the next step involved generating an orthogonal matrix. This matrix is essential for creating a model that captures customer preferences accurately. To generate this matrix, we went to the "Data" menu, selected "Orthogonal Design," and then chose "Generate." This action opened the "Generate Orthogonal Design" dialog box where we needed to specify various factors. For each attribute, we added a "Factor Name" and a corresponding "Factor Label." The "Factor Name" remained the same as the attribute name, while the "Factor Label" included a prefix "Souvenir" to distinguish each attribute within the model. For instance, the "Price" attribute was labelled as "SouvenirPrice," and "Authenticity" was labeled as "SouvenirAuthenticity" etc. The values for these factors were defined as outlined in the attribute definition section. After adding all the factor names, labels, and their corresponding values, we created a new dataset. To ensure reproducibility, we reset the random number seed to 2000000. In the "Options" section, we specified 60 as the number of cases to generate and set 10 as the number of holdout cases. This configuration helps in validating the model. Clicking "Ok" displayed the orthogonal design in the Data Editor, which was best viewed by displaying value labels rather than actual data values. With the orthogonal design created, the next step was to use it to develop product profiles that subjects would rate. This involved going back to "Data," selecting "Orthogonal Design," and then choosing "Display." We selected all the attributes and added them under "Factors." We also selected the checkbox for "profile cards" before clicking "Ok." This action generated profile cards, which respondents were asked to rank from most preferred to least preferred. To perform the choice-based conjoint analysis, we moved to the main file and opened a new syntax window by navigating to "File," then

"New," and selecting "Syntax." In this syntax window, we wrote the code necessary for running the conjoint analysis. This code utilized the imported data and the generated orthogonal design to calculate the utility values for each attribute level, which in turn provided insights into consumer preferences.

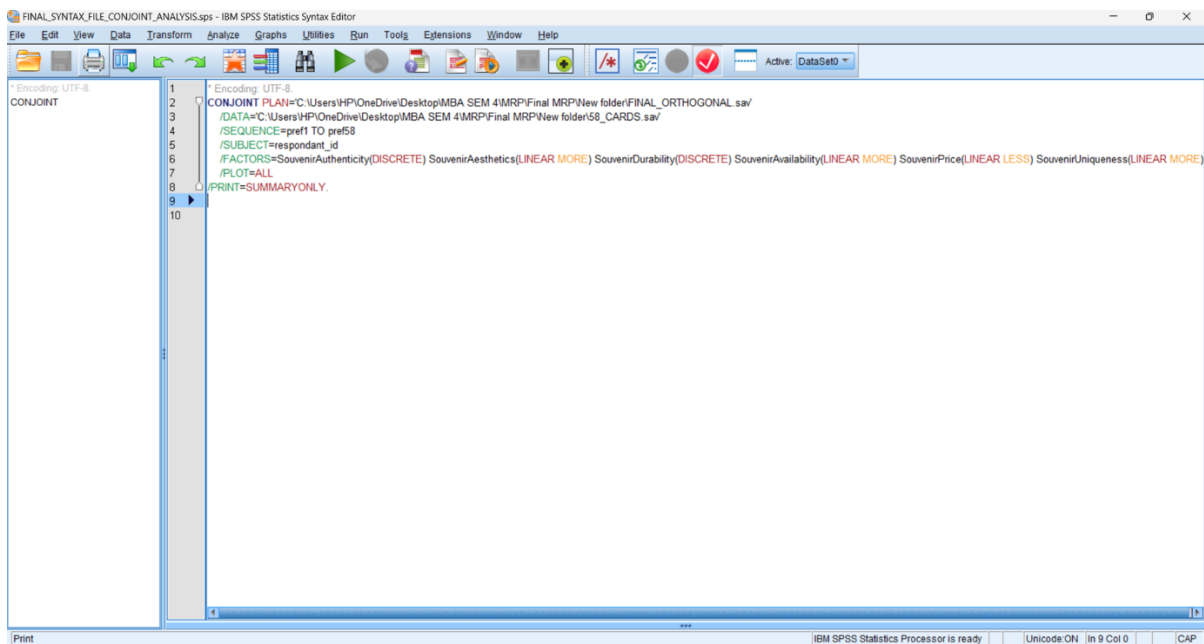


Figure 1: Conjoint Analysis Code in IBM SPSS Statistics

Overall, this methodological approach allowed us to systematically analyse how different attributes influenced Indian consumers' souvenir-buying decisions, offering valuable insights for businesses and marketers in the souvenir industry.

3.3. Multi-Criteria Decision Making

The field of operational research known as multiple-criteria decision-making (MCDM) or multiple-criteria decision analysis (MCDA) systematically evaluates multiple separate variables while making decisions (both in everyday life and in settings like business, government, and medical).

Alternative titles for it are multi-objective choice analysis, multiple attribute utility theory, multiple attribute value theory, and multiple attribute preference theory.

The framework and solutions with multiple criteria decision and planning problems are the focus of MCDM. The objective is to be helpful to individuals who are in command of making these decisions. For such challenges, there generally isn't a single ideal solution, hence decision-makers' opinions have to be utilized to differentiate between various approaches.

3.3.1. Analytical and Hierarchical Processing

Combining both math and psychology, the Analytic Hierarchy Process, also known as the AHP, is an approach of organizing and evaluating complicated options. When making decisions about challenging issues with significant implications, the AHP is the most useful. It stands out from other techniques of making choices since it puts figures on options and criteria that are usually hard to evaluate. AHP assists decision makers in selecting the course of action that best aligns with their values and problem-solving abilities, as compared to prescribing the "correct" course of approach. The input of stakeholders is essential as distinct divisions will impose different weights on various considerations.

CHAPTER 4

FINDINGS AND RESULTS

Based on the comprehensive evaluation, which included collecting the data and performing a choice-based conjoint analysis after, we came to a number of important conclusions that significantly enhance our understanding of how Indian consumers purchase souvenirs. The findings offer an understanding of all the factors influencing consumer preferences including the vital role that social media plays when shaping these decisions. The study indicated that social media sites greatly influence the travel and souvenir decisions of Indian consumers. A substantial percentage of respondents expressed that their decisions were influenced by content they encountered on these platforms. This underlines how important it is for businesses in the souvenir market to maintain a strong presence on social media. A demographic analysis revealed that younger consumers—especially those between the ages of 18 and 35—are more inclined to let social media influence their decisions when buying souvenirs and choosing travel destination, and that higher income groups are more likely to buy luxurious, unique, and authentic souvenirs. It was also found that the top 4 factors that influenced travel decisions were: natural landscapes, cultural attractions and food, recommendations from friends and family and the last factor was visiting the historical sites. People highly preferred to visit the tourist places because of the natural landscapes and picturesque view. Second of the most favoured factor was the love for culture and their foods. Following them, comes recommendations from friends and family, which is clearly true because word of mouth comes handy in India. The historical sites attracted the tourists too.

Authenticity, durability, and aesthetics were found to be three of the most significant variables affecting souvenir purchasing by conjoint analysis.

Authenticity was found to be the most important factor, and handcrafted souvenirs made by local artisans were strongly preferred. The second most significant factor was durability, as buyers preferred souvenirs were unique and were mostly non-durables item (food, glass etc.). Another significant factor influencing consumer decisions was aesthetics, particularly the use of bright colours and intricate designs. Price was a significant factor, but various categories of customers emphasized it individually. Some emphasized cost effectiveness more than others, while others were willing to spend higher for authentic, durability and aesthetics.

The overwhelming majority of respondents, according to the conjoint analysis, preferred medium-priced items (Rs. 501–Rs. 1,000). Another important consideration was uniqueness, with a preference for one of a kind products than the ones that were common. Even though it was of lesser significance, availability still played a role in making decisions; consumers preferred things that could be found almost everywhere culturally significant places over those that were rarely to be found.

Using the Analytical and Hierarchical Process in Multi-Criteria Decision Making method, the impact of each attribute on souvenir purchases was quantified, reinforcing the findings from the conjoint analysis. With authenticity and durability at the top of the hierarchy of feature significance, this technique revealed how consumers place a high value on the connections between various features. They choose souvenirs that balance authenticity, durability, and aesthetics. These findings add to the repository of information by highlighting the complicated tastes of Indian consumers, bringing attention to the expanding impact of social media on consumer behaviour, and underlining the significance of authenticity and originality in motivating purchases of souvenirs. By illustrating the complicated tastes of Indian consumers, showing the growing influence of social media on consumer behaviour, and highlighting the significance of authenticity and durability in motivating souvenir purchases, these findings add to the collection of existing research. Recognizing these preferences is essential for marketers and businesses in the souvenir industry to adapt to customer requests by customizing product offers

and marketing methods. To fulfil consumer demands, marketers and firms in the souvenir industry must change their product offers and advertising strategies based on an extensive understanding of these preferences. This study offers an outline for further research that will examine the dynamic interactions between unique features and consumer preferences in varied cultural contexts. This is going to strengthen our understanding of the factors influencing Indian consumers' decisions to purchase souvenirs and open the door to more efficient and focused marketing strategies.

4.1. Results and inferences from demographic details

People Who Visited A Destination Primarily Because Of Social Media

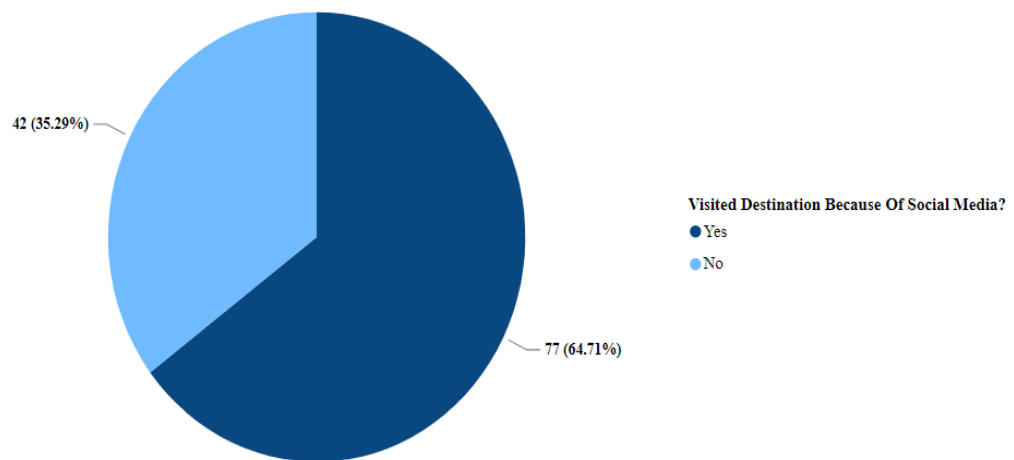


Figure 2: Number Of People Who Visited Social Media Primarily Due To Social Media

According to the demographic information gathered from the survey, we counted 119 responses in total. When asked if they travelled somewhere

simply because they saw it on social media, or any other platform, we found that 77 out of 119 respondents answered "yes," and the other 42 respondents answered "no." It would be reasonable to draw the conclusion that social media significantly affects Indians' decisions about trip destinations, hence influencing their thoughts.

The people were also asked about the factors which motivated them to choose a travel destination. We gave them choices among which they had to choose 4 options which influenced or motivated them the most to make a travel decision. The choices were: natural landscapes, cultural attractions, food and cuisine, historical sites, recommendations from friends and family, social media influence and others. People fed their responses and it was found that at "Factor 1", 50 people chose "Natural Landscapes" which meant people preferred natural scenarios and picturesque views. At "Factor 2", 27 people believe that cultural attractions and food and cuisine were the second motivation to visit a place. Following them, people chose "Recommendations from family/friends" came at "Factor 3". This can be interpreted that Indian people also believe in word of mouth. At last, "Factor 4" is the "Historical Sites" which motivated people to visit tourist destination.

To illustrate the importance of each attribute at each rank, we have created a waterfall chart. The four charts are shown below. To prepare these, the responses have been separated into rows in Excel and counted based on the number of data points.

Factor #1 of Travel Destination Choice

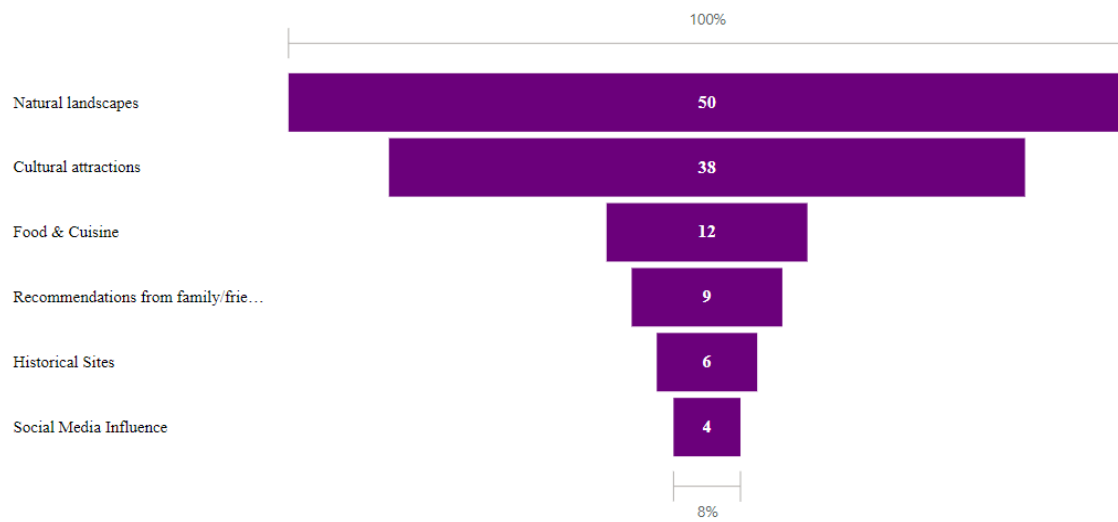


Figure 3: Factor #1 of Travel Destination Choice

Factor #2 of Travel Destination Choice

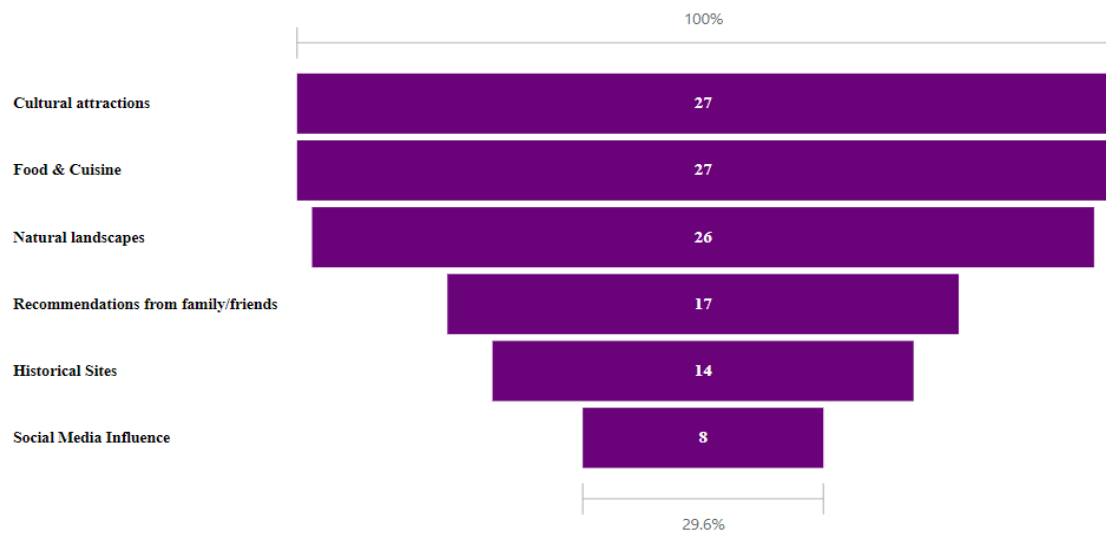


Figure 4: Factor #2 of Travel Destination Choice

Factor#3 of Travel Destination Choice

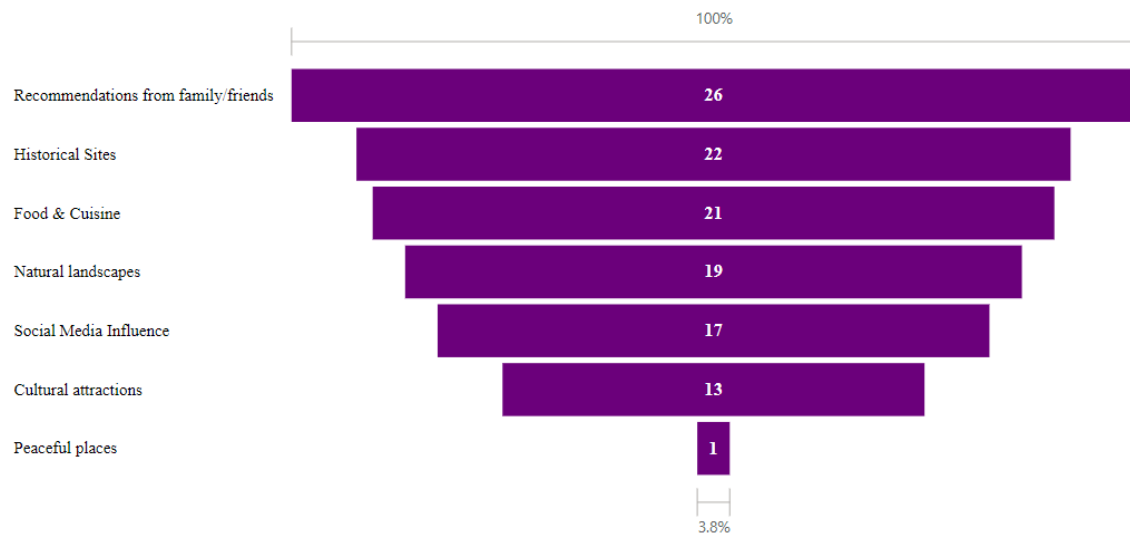


Figure 5: Factor #3 of Travel Destination Choice

Factor#4 of Travel Destination Choice

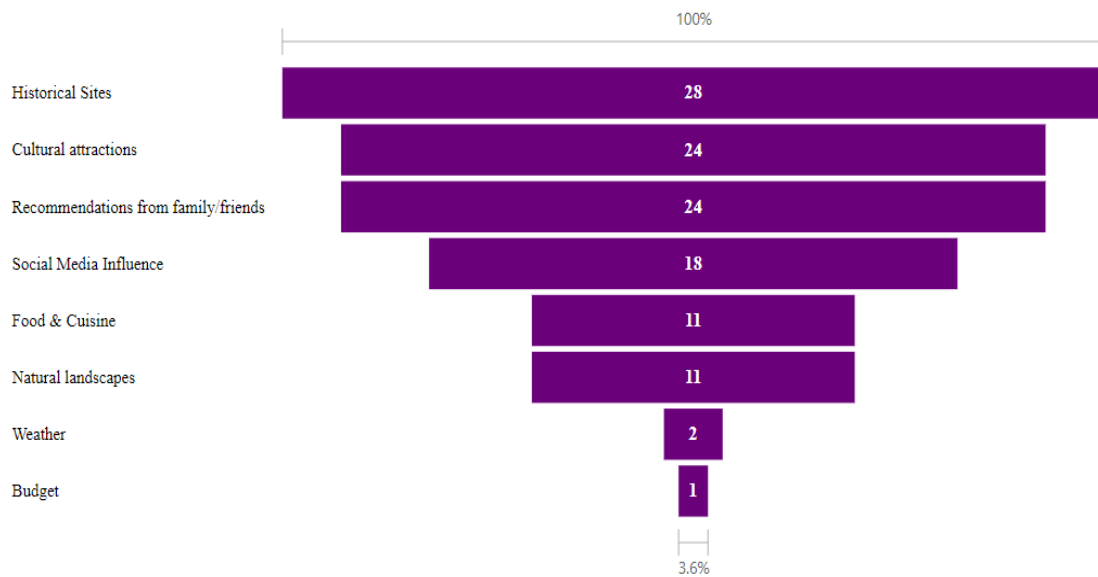


Figure 6: Factor #4 of Travel Destination Choice

The options that were presented to the respondents were: You love them personally; traditional & show of culture/to decorate; reminds you of the place; gift for others; collection; influence from social media; and others.

People recorded their answers based on the factors they find the most influential. At “Factor 1”, 48 people out of 119 said that “they personally loved the item” which is why they purchased the souvenir. After factor 1, people’s answers showed that their second motivation to purchase souvenir is “Traditional & display of culture/to decorate”. Hence, it was recorded at “Factor 2” and 35 people believed in it.

At “Factor 3”, people purchased souvenirs to “gift their known people”. We can agree with this as people tend to purchase gifts for their loved ones when they are visiting a place. 35 people agreed to it.

At last, 35 people like to have a collection of souvenirs and hence it was one of motivations to purchase souvenir. Hence, they placed “Collection” at “Factor 4”.

To display the results stated above, we chose column chart to best represent the preference/motivation to purchase souvenir at each factor level.

Motivation#1 Of Purchasing Souvenirs

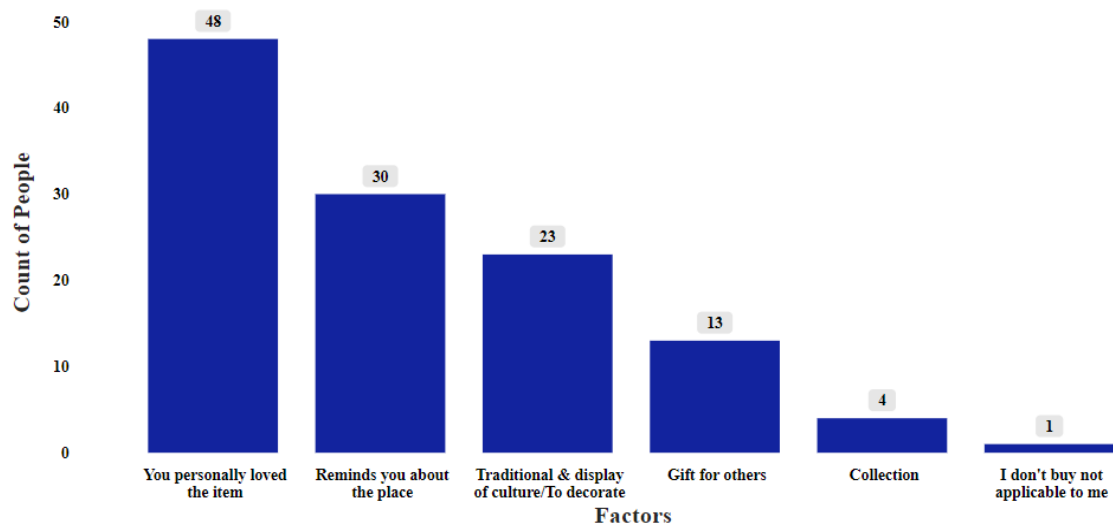


Figure 7: Motivation #1 of Purchasing Souvenir

Motivation#2 Of Purchasing Souvenirs

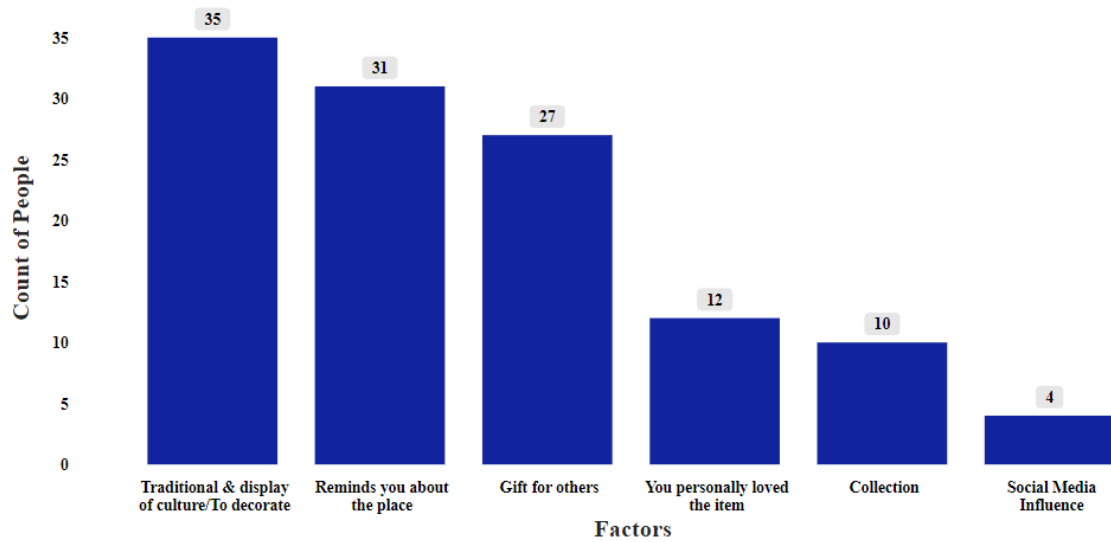


Figure 8: Motivation #2 of Purchasing Souvenir

Motivation#3 Of Purchasing Souvenirs

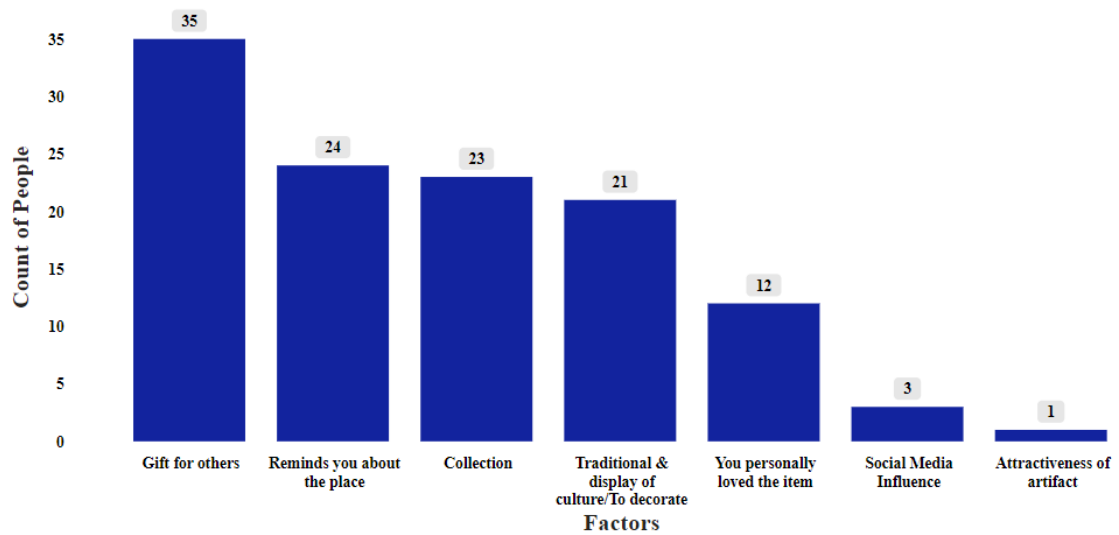


Figure 9: Motivation #3 of Purchasing Souvenir

Motivation#4 Of Purchasing Souvenirs

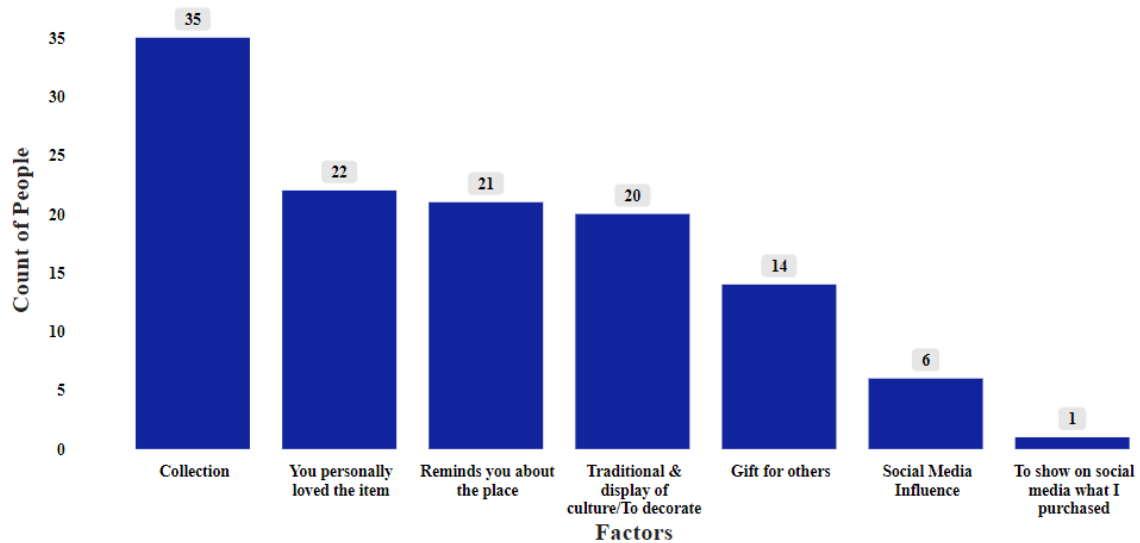


Figure 10: Motivation #4 of Purchasing Souvenir

4.2. Results and inferences from Choice Based Conjoint Analysis

Choice based conjoint analysis was performed after running the code mentioned in Section 3.2. The code consists of some keywords whose meaning and significance is explained below:

The file holding the orthogonal design, FINAL_ORTHOGONAL.sav, is specified by the PLAN subcommand. The preference data file, in this case 58_Cards.sav, is searched by the DATA subcommand. You can substitute an asterisk (*) for the quotation marks in the file specification if you select the preference data as the active dataset. According to the SEQUENCE Subcommand, every data point in the preference data is a profile number, numbered from the most favoured to the least preferred. The SUBJECT subcommand looks for evidence that the subjects are identified by the variable ID. The FACTORS Subcommand looks for a model that explains how the factor levels and preference data should be related. The variables described in

the plan file named on the PLAN subcommand are referred to by the supplied factors. When the factor levels are categorical and no assumptions are made regarding the relationship between the levels and the data, the keyword DISCRETE is utilized. This is true for the variables package and brand, which stand for, respectively, package design and brand name. If a factor is not listed on the FACTORS subcommand or is not labelled with one of the four possibilities (IDEAL, ANTIIDEAL, LINEAR, or DISCRETE), DISCRETE is assumed. The data are anticipated to relate to the factor in a linear fashion, as shown by the use of the keyword LINEAR or by the remaining factors. For instance, it's common knowledge that desire and price have a linear relationship. The keywords IDEAL and ANTIIDEAL can also be used to indicate quadratic models, which are not used in this example.

The predicted direction of the relationship is indicated by the phrases MORE and LESS, which come after LINEAR. The keyword LESS is chosen for pricing because we anticipate a greater preference for cheaper prices. The keyword MORE is used for both money and seal because we anticipate that people will prefer a money-back guarantee or a Good Housekeeping seal of approval more than anything else (bearing in mind that the levels for both of these elements were set to 1 for no and 2 for yes). The utility estimates remain unchanged and the signs of the coefficients remain unaffected by the specification of MORE or LESS. The purpose of these keywords is to simply identify participants whose estimates deviate from the predicted direction. Similarly, utilities and coefficients are unaffected by selecting IDEAL over ANTIIDEAL or vice versa. The SUMMARY ONLY keyword in the output of the PRINT subcommand indicates that the data pertains solely to the entire group of subjects. Information is withheld for each individual person separately. Try executing the following command syntax. Verify that the paths to 58_CARDS.sav and FINAL_ORTHOGONAL.sav are correct.

Model Description		
	N of Levels	Relation to Ranks or Scores
Souvenir Price	3	Linear (less)
Souvenir Authenticity	3	Discrete
Souvenir Aesthetics	3	Linear (more)
Souvenir Uniqueness	3	Linear (more)
Souvenir Durability	3	Discrete
Souvenir Availability	3	Linear (more)
All factors are orthogonal.		

Table 1: Model Description

The table above tells us the number of dimensions of the respective feature. For example, the features like SouvenirPrice, SouvenirUniqueness, SouvenirAvailability, SouvenirAesthetics, SouvenirAuthenticity and SouvenirDurability have 3 dimensions each.

We learnt about the relations previously.

Souvenir Price is given LINEAR (LESS) which means purchase of souvenir will decrease if the price increases. Souvenir's authenticity and durability are given DISCRETE as value. DISCRETE as relations signifies that value at each level is equal. Features such as aesthetics, uniqueness and availability are given LINEAR (MORE) which means purchase of souvenir and level of these attributes go hand in hand. It means if the value is low then the preference score is low.

Utilities

		Utility Estimate	Std. Error
Souvenir Authenticity	Low (Mass produced)	.152	.264
	Medium (Sourced directly from historic sites)	-.358	.291
	High (Handcrafted by local artisans)	.206	.291
Souvenir Durability	Low (Non-durables)	.275	.264
	Medium (Semi-durables)	-.303	.291
	High (Major durables)	.027	.291
Souvenir Price	Less Than or Equal to Rs. 500	-.209	.235
	Rs. 501-Rs. 1,000	-.104	.470
	More Than or Equal to Rs. 1001	-.313	.705
Souvenir Aesthetics	Low: Bold colours; simple modern appeal	.146	.235
	Medium: Neutral colours; fancy yet historic	.291	.470
	High: Vibrant colours; intricate & unique	.437	.705
Souvenir Uniqueness	Low: Common Design	-.333	.235
	Medium: Limited Edition Design	-.222	.470
	High: One of a kind	-.111	.705
Souvenir Availability	Low: Limited Edition	.013	.235
	Medium: Found in some places	.026	.470
	High: Found almost everywhere	.039	.705
(Constant)		25.044	.896

Table 2: Utilities Table

We can see the preference score for each attribute in the above table. The attribute with the highest score is the one that is preferred the most.

We have highlighted the level of each attribute which have the highest score.

For the first attribute, Authenticity, level “**High**” has the highest utility score of **0.206**. It can be accepted that Indian consumers prefer handcrafted souvenirs designed by local artisans.

The second attribute, Durability, level “**Low**” had the highest score which implies it is preferred the most. The utility score corresponding to this level is **0.275**. Indian consumers prefer to opt for buying less durable souvenirs. Here, we’ve taken into account things like food, cookware, glasses, etc.

We have Price as our third attribute. Here, level “**Medium**” has the highest score of **-0.104**. It implies that when buying souvenirs in the Indian market buyers are willing to spend between Rs. 501 and Rs. 1,001. The most likely situation is this particular one.

The fourth attribute is “Aesthetics” where level “**High**” has the highest score, i.e. **0.437**. A single take is that a greater percentage of buyers are drawn to souvenirs with vibrant colours, intricate designs, and unique features.

Uniqueness is the fifth attribute. Here, level “**High**” has managed to get a score of **-0.111**. Purchases of unique souvenirs are preferred by consumers. People like highly unique souvenirs.

The last attribute is Availability whose level “**High**” has the highest score of **0.039**. It implies that while consumers want their items to be unique, they also want them to be accessible in the marketplaces and stores close to them.

Importance Values

Souvenir Authenticity	22.582
Souvenir Durability	20.627
Souvenir Price	13.753
Souvenir Aesthetics	15.746
Souvenir Uniqueness	13.865

Souvenir Availability	13.427
Averaged Importance Score	

Table 3: Importance Values

The major characteristics that affect a consumer's decision to buy a souvenir are outlined in the second table. The most important consideration taken into account by Indian shoppers is "authenticity of souvenirs." The significant value is 22.582. The second most important aspect, "Souvenir Durability," comes in second with a score of 20.627. With a score of 15.746, "Souvenir Aesthetics" is the third most significant factor. Among the six characteristics, the three most crucial ones to consider while buying a keepsake are authenticity, durability, and price.

Coefficients

	B Coefficient Estimate
Souvenir Price	-.104
Souvenir Aesthetics	.146
Souvenir Uniqueness	-.111
Souvenir Availability	.013

Table 4: Coefficients Table

Value and the utility score are multiplied to find the coefficient. This time, the B coefficient estimate for "Aesthetics" is 0.146, which suggests once more the previously mentioned ideas.

This table, titled "Number of Reversal," displays the number of respondents or subjects whose answers deviate from expectations. The percentage in the table indicates the proportion of respondents who select the less preferred levels of those attributes. For instance, sixty-three respondents indicated that they would rather have the souvenir be tougher to come by or only available in a few locations. Next, 63 respondents said they would rather have fewer unique and commonly designed souvenirs.

Following this, 58 people are probably going to buy souvenirs with a modern design or a pale aesthetic appearance. Of the participants, 56 individuals would rather buy souvenirs that cost more than Rs. 1,001. Nobody wants to own an essentially fake souvenir that is also quite durable.

Number of Reversals

Number of Reversals			
Factor	Souvenir Availability		63
	Souvenir Uniqueness		63
	Souvenir Aesthetics		58
	Souvenir Price		56
	Souvenir Durability		0
	Souvenir Authenticity		0
Subject	1	Subject 1	2
	2	Subject 2	2
	3	Subject 3	3
	4	Subject 4	3
	5	Subject 5	3
	6	Subject 6	2
	7	Subject 7	2
	8	Subject 8	3
	9	Subject 9	2
	10	Subject 10	1
	11	Subject 11	2
	12	Subject 12	1
	13	Subject 13	3
	14	Subject 14	1
	15	Subject 15	2
	16	Subject 16	3
	17	Subject 17	3
	18	Subject 18	3
	19	Subject 19	2

20	Subject 20	4
21	Subject 21	1
22	Subject 22	1
23	Subject 23	1
24	Subject 24	2
25	Subject 25	1
26	Subject 26	1
27	Subject 27	1
28	Subject 28	4
29	Subject 29	1
30	Subject 30	1
31	Subject 31	2
32	Subject 32	2
33	Subject 33	4
34	Subject 34	1
35	Subject 35	3
36	Subject 36	0
37	Subject 37	2
38	Subject 38	2
39	Subject 39	3
40	Subject 40	2
41	Subject 41	2
42	Subject 42	1
43	Subject 43	1
44	Subject 44	1
45	Subject 45	3
46	Subject 46	2
47	Subject 47	4
48	Subject 48	1
49	Subject 49	2
50	Subject 50	1
51	Subject 51	1
52	Subject 52	2
53	Subject 53	2
54	Subject 54	1
55	Subject 55	3
56	Subject 56	2

57	Subject 57	1
58	Subject 58	1
59	Subject 59	2
60	Subject 60	2
61	Subject 61	3
62	Subject 62	3
63	Subject 63	2
64	Subject 64	1
65	Subject 65	1
66	Subject 66	3
67	Subject 67	2
68	Subject 68	1
69	Subject 69	3
70	Subject 70	3
71	Subject 71	2
72	Subject 72	2
73	Subject 73	2
74	Subject 74	4
75	Subject 75	0
76	Subject 76	2
77	Subject 77	2
78	Subject 78	3
79	Subject 79	1
80	Subject 80	3
81	Subject 81	3
82	Subject 82	2
83	Subject 83	3
84	Subject 84	3
85	Subject 85	2
86	Subject 86	1
87	Subject 87	1
88	Subject 88	3
89	Subject 89	1
90	Subject 90	1
91	Subject 91	1
92	Subject 92	3
93	Subject 93	2

94	Subject 94	1
95	Subject 95	2
96	Subject 96	2
97	Subject 97	1
98	Subject 98	3
99	Subject 99	2
100	Subject 100	2
101	Subject 101	3
102	Subject 102	3
103	Subject 103	2
104	Subject 104	1
105	Subject 105	1
106	Subject 106	1
107	Subject 107	2
108	Subject 108	2
109	Subject 109	3
110	Subject 110	2
111	Subject 111	3
112	Subject 112	2
113	Subject 113	2
114	Subject 114	3
115	Subject 115	1
116	Subject 116	1
117	Subject 117	2
118	Subject 118	4
119	Subject 119	3

Table 5: Number of Reversal Table

Overall, the table indicates that individuals would prefer to buy a souvenir that is harder for them to find by and has a fairly common layout with a modern appeal, bold colours, and a pale aesthetic appearance. If the souvenir costs more than Rs. 1,001 and is reasonably durable but not genuine, it may be bought.

Reversal Summary

N of Reversals	N of Subjects
1	37
2	43
3	31
4	6

This table displays the number of subjects that have the given number of reversals.

Table 6: Reversal Summary Table

The number of subjects who provided the number of reversals is summarized in the reversal summary table.

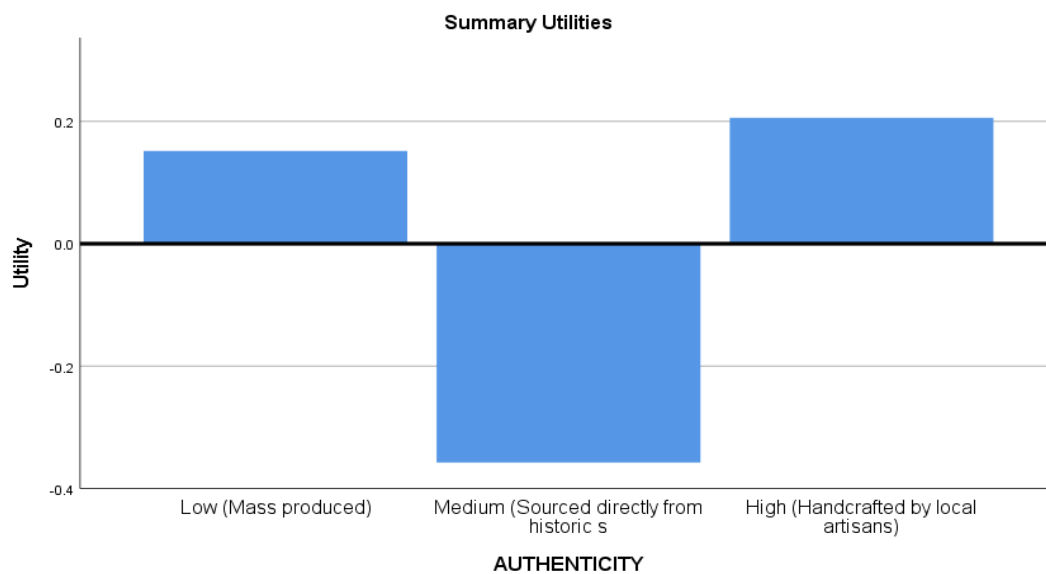


Figure 11: Authenticity Summary Utilities

The "Authenticity" graph illustrates the number of respondents selected each level of authenticity. As we can see, the level "**High**" has the highest utility score, or almost eight points. Individuals select the memento, which is produced by local artisans by hand.

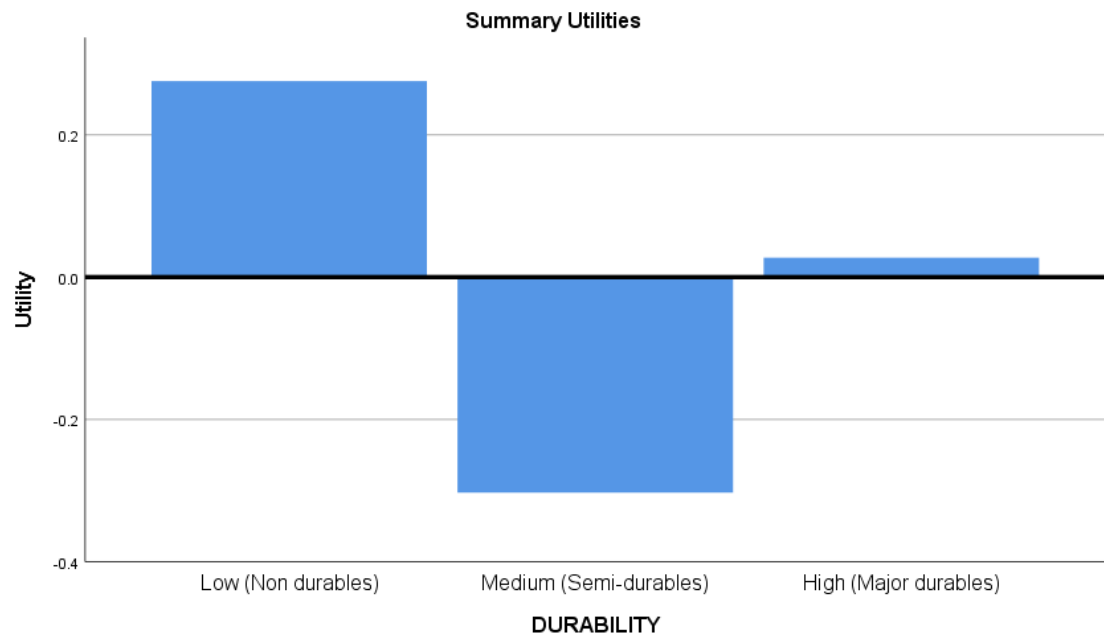


Figure 12: Durability Summary Utilities

The "Durability" graph illustrates the number of respondents selected each level of durability. As we can see, the level "**Low**" has the highest utility score, or almost eight points. Individuals select the souvenirs, which is of low durability or has a low durable material. These souvenirs consisted of products like food, glass products etc.

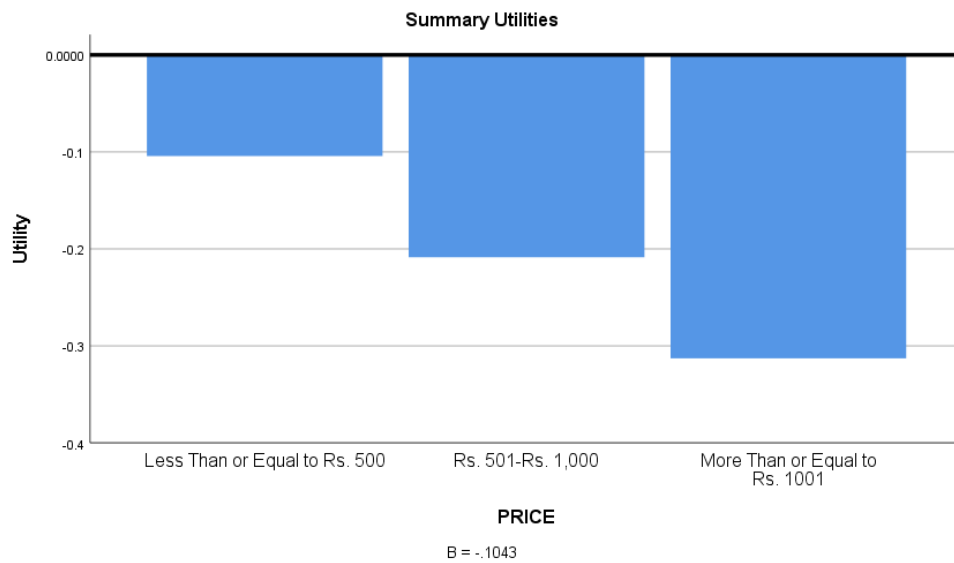


Figure 13: Price Summary Utilities

The graph labelled "Price" displays the proportion of respondents who chose each price level. As we can see, with nearly twenty points, the level "High" has the highest usefulness value. People are more prone to buy souvenirs that fit them rather than paying close attention to cost.

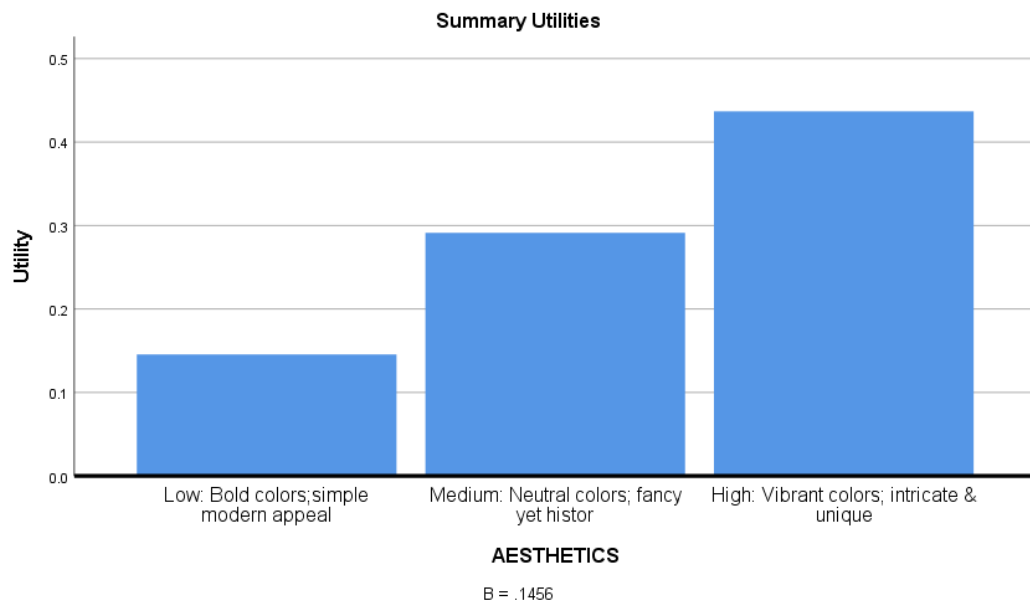


Figure 14: Aesthetics Summary Utilities

The percentage of respondents who selected each aesthetic category is shown in the "Aesthetics" graph. As we can see, the level "High" has the highest utility value, with about twenty-one points. Souvenirs with intricate and unique designs and exceptionally vibrant colours tend to be purchased more frequently by consumers.

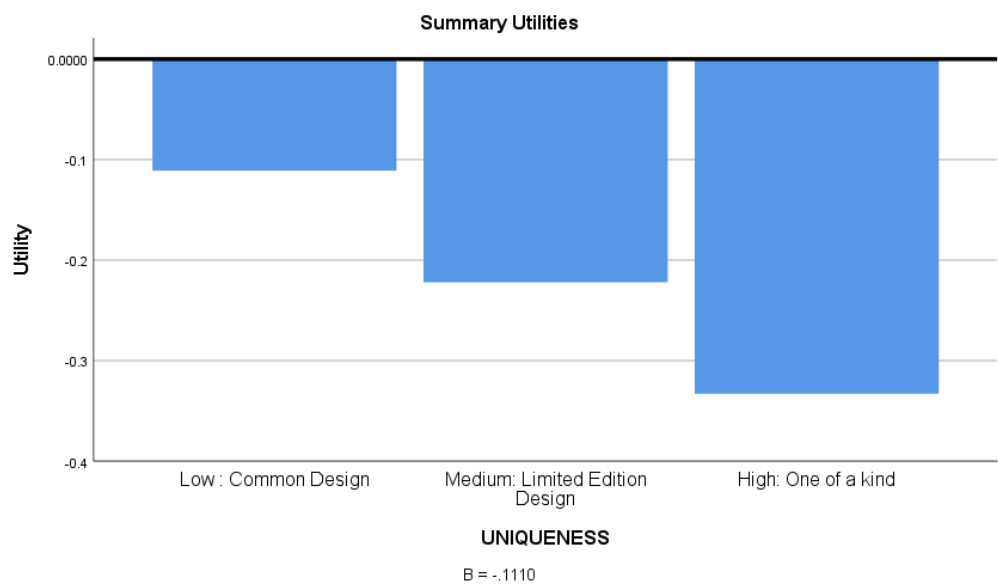


Figure 15: Uniqueness Summary Utilities

The "Uniqueness" graph displays the percentage of responders that chose each category. With almost seventeen points, we can observe that the level "High" has the maximum utility value. Unique and distinctively designed souvenirs have a higher chance of being bought by customers.

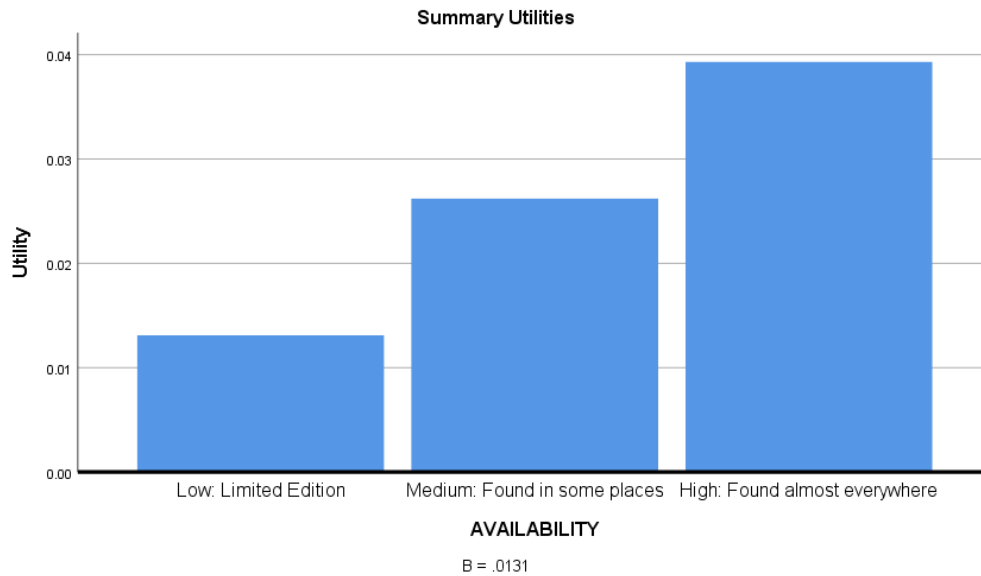


Figure 16: Availability Summary Utilities

The percentage of respondents that selected each category is shown in the "Availability" graph. We can see that the level "**High**" has the highest utility value with over twenty-five points. Even though they would rather buy unique designs, customers still want them to be easily accessible and readily available.

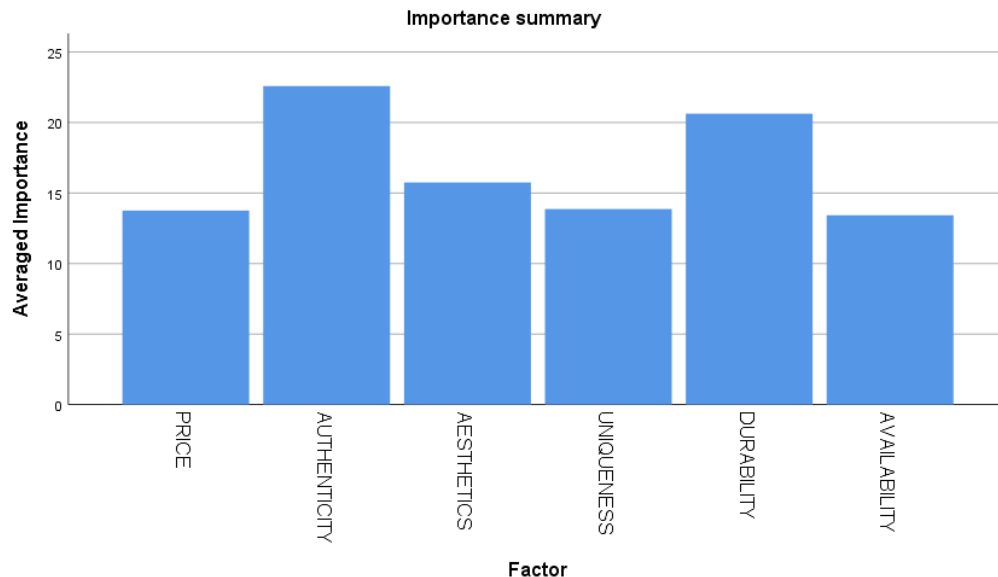


Figure 17: Averaged Importance of each Factor

The graph above illustrates the relative weights of each consideration while choosing a souvenir. All of the considerations are taken into account at the time of purchase, and a decision is made. As per the graph, the characteristics with the highest average importance are **Durability, Authenticity, and Aesthetics**.

4.3. Results and inferences from Analytical Hierarchical Processing

Our research focuses on a number of factors that influence consumers' decisions when purchasing souvenirs from the Indian Market. Let's imagine we have to choose the criteria for purchasing souvenirs. A variety of factors, including price, availability, uniqueness, authenticity, and durability, are taken into consideration when making decisions. Sometimes, we base our decisions on prior experiences or our own emotions. We might also enumerate the benefits and drawbacks or ask for opinion from others. Numerous considerations and assessment variables are included in the decision-making process when choosing a factor to consider when purchasing souvenirs from the Indian Market. To select the finest characteristics out of all of them, it is crucial to consider both qualitative and quantitative elements at the same time. Here, it's not always a good idea to just pick the memento that costs the least. For example, a product may cost more than advertised if its aesthetic quality is low (bold colours, simple design, modern appeal). Here, the souvenir's durability should also be taken into account. It can be advisable to give other considerations the weight they deserve when selecting a keepsake, such as its availability and history. Thus, the analytic hierarchy process (AHP) is a technique that might assist us in sorting through all the data and reaching our conclusions.

AHP is a multi-step paradigm for decision analysis that translates qualitative elements into numerical values. It computes the significance of criteria using matrices and linear algebra. Depending on how important a criterion is, assigning weight to each one can cause the criteria to vary from one another. This idea is applied in the AHP technique to assess alternatives. The most popular and useful technique in the Multi-criteria Decision-Making (MCDM) process for allocating the relative importance of each criterion or element taken into consideration in the study is the Analytical Hierarchy Process (AHP), proposed by Saaty (1987).

The following systematic methods can be applied to determine relative weights factors for elements and factors, as proposed by Saaty (1987).

STEP 1: Objective, Criteria, and Alternatives Identification

Objective, Criteria, and Alternatives identification is performed to streamline the process, maximize efficiency, and enhance decision outcomes. Define the decision objective (e.g., selecting souvenirs from the Indian Market). Identify criteria (e.g., authenticity, durability, aesthetics, uniqueness, price, availability). Group sub-criteria into major criteria (e.g., 18 sub-criteria for 6 main criteria). Assume three alternatives (e.g., different souvenir options).

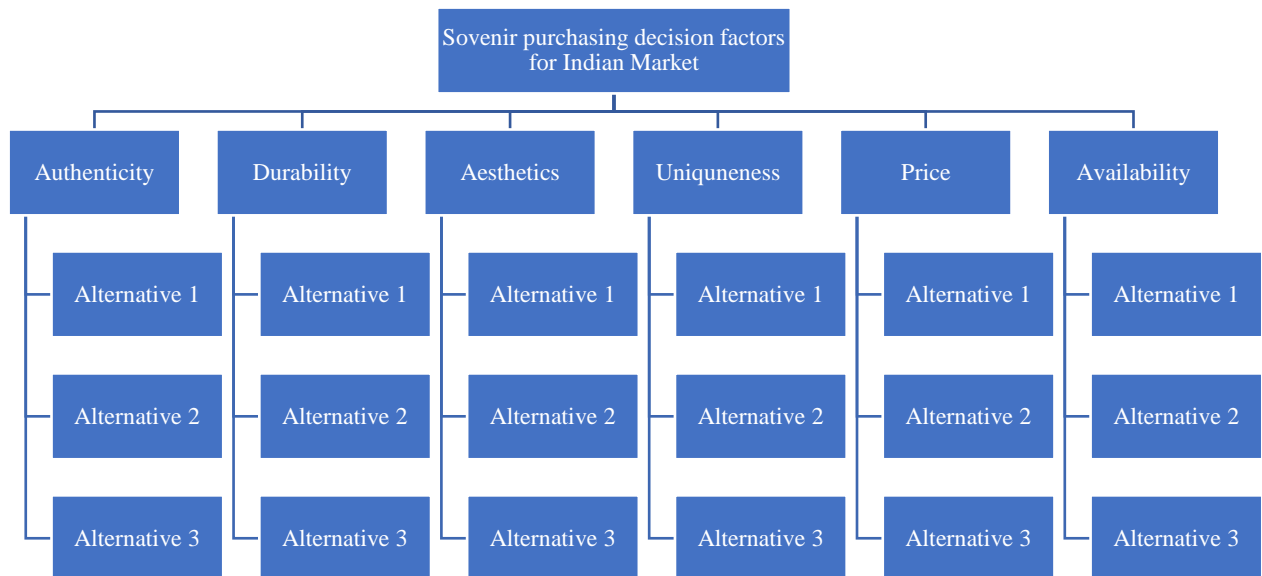


Figure 18: Category for each attribute

Criteria	Sub criteria
Authenticity	Mass-produced (Low)
	Sourced directly from historical sites (Medium)
	Handcrafted by local artisans (High)
Durability	Non-durables (food, glass items): (Low)
	Semi-durables (clothing, stationery items, etc.): (Medium)
	Major durables (items made from strong materials): (High)
Aesthetics	Bold colors, Simple design, modern appeal (Low)
	Neutral colours, fancy detailing with historical significance (Medium)
	Vibrant colors, intricate & unique design (High)
Uniqueness	Common design (Low)
	Limited edition design (Medium)
	One-of-a-kind (High)
Price	Less Than or Equal to Rs. 500 (Low)
	Rs. 501-Rs. 1000 (Medium)
	Rs. 1001 and above (High)
Availability	Limited edition (Low)
	Found in some places (Medium)
	Found almost everywhere (High)

Figure 19: Criteria and Sub-Criteria for each factor

After deciding the decision framework, along with all the necessary criteria, we need to define a comparison scale that shows the verbal description of the relative importance between the two criteria in the form of a numerical rating.

STEP 2. Assigning the relative importance of a value ranging from 1 to 9 to each factor to construct

Assign a value (1 to 9) to each factor based on its importance. Construct a pairwise comparison matrix for all criteria.

Table 20: Verbal Judgement and Numerical Rating

Verbal Judgement	Numerical Rating
Extremely preferred	9
Very to extremely strongly preferred	8
Very strongly preferred	7
Strongly to very strongly preferred	6
Strongly preferred	5
Moderately to strongly preferred	4
Moderately preferred	3
Equally to moderately preferred	2
Equally preferred	1

STEP 3: Pair-wise Comparison Matrix

Create a Pair-wise Comparison Matrix of the criteria selected. This step builds a comparison matrix for each criteria pair based on the numerical rating scale defined in the last step. The selection of ratings is purely based on individual judgment and understanding. We performed this step in Excel.

Pair-wise comparison matrix constructed:

STEP1: Pair-wise Comparison Matrix

Factors	Authenticity	Durability	Aesthetics	Uniqueness	Price	Availability
Authenticity	1	3	8	4	9	7
Durability	1/3	1	4	3	5	8
Aesthetics	1/8	0	1	2	5	6
Uniqueness	1/4	1/3	1/2	1	4	4
Price	1/9	1/5	1/5	1/4	1	3
Availability	1/7	1/8	1/6	1/4	1/3	1
Sum	1.96	4.91	13.87	10.50	24.33	29.00

Figure 21: Pair-Wise Comparison Matrix

A numerical rating of 3 between durability and authenticity means that durability is moderately preferred over authenticity. Similarly, we can interpret each of the comparison ratings.

STEP 4: Normalized Pair-wise Comparison Matrix

Divide each value in the column by the sum of that column. Obtain a normalized matrix to represent relative weights.

Normalized pair-wise comparison matrix obtained:

STEP 2: Normalized Pair-wise Comparison Matrix

Factors	Authenticity	Durability	Aesthetics	Uniqueness	Price	Availability
Authenticity	0.5096	0.6112	0.5769	0.3810	0.3699	0.2414
Durability	0.1699	0.2037	0.2885	0.2857	0.2055	0.2759
Aesthetics	0.0637	0.0509	0.0721	0.1905	0.2055	0.2069
Uniqueness	0.1274	0.0679	0.0361	0.0952	0.1644	0.1379
Price	0.0566	0.0407	0.0144	0.0238	0.0411	0.1034
Availability	0.0728	0.0255	0.0120	0.0238	0.0137	0.0345

Figure 22: Normalized Pair-Wise Comparison Matrix-1

STEP 5: Weight Computation and Consistency Check

In the third stage, the weight of each criterion/factor can be computed by dividing the sum of each row in the normalized pair-wise comparison matrix table by the number of criteria/factors. Here the number of criteria/factors equal to 6.

STEP 2: Normalized Pair-wise Comparison Matrix

Factors	Authenticity	Durability	Aesthetics	Uniqueness	Price	Availability	Sum	Criteria Weights	Criteria weight (%)
Authenticity	0.5096	0.6112	0.5769	0.3810	0.3699	0.2414	2.6899	0.4483	45
Durability	0.1699	0.2037	0.2885	0.2857	0.2055	0.2759	1.4291	0.2382	24
Aesthetics	0.0637	0.0509	0.0721	0.1905	0.2055	0.2069	0.7896	0.1316	13
Uniqueness	0.1274	0.0679	0.0361	0.0952	0.1644	0.1379	0.6289	0.1048	10
Price	0.0566	0.0407	0.0144	0.0238	0.0411	0.1034	0.2801	0.0467	5
Availability	0.0728	0.0255	0.0120	0.0238	0.0137	0.0345	0.1823	0.0304	3
							6	1	100

Figure 23: Normalized Pair-Wise Comparison Matrix-2

To check whether the comparison is correct/consistent or not, the consistency check can be performed using the equations given below. The consistency index (CI) can be calculated using the following equation (Eq. 1) as given by Saaty (1987):

Figure 24: Equation for Consistency Index

$$CI = \frac{\lambda_{max} - n}{n - 1} \quad (1)$$

Here,

CI is the consistency index,

n is the number of factors being compared in the matrix

λ_{\max} is the highest eigenvalue of the pairwise comparison matrix

As suggested by Saaty (1987), the maximum eigenvalue (λ_{\max}) of the comparison matrix can be calculated by the following procedures:

1. Multiplying each value in the column (in the matrix table which is not normalized) by the criteria weight:

STEP 3: Calculating Consistency						
C.W	0.4483	0.2382	0.1316	0.1048	0.0467	0.0304
Factors	Authenticity	Durability	Aesthetics	Uniqueness	Price	Availability
Authenticity	0.4483	0.7146	1.0528	0.4193	0.4202	0.2127
Durability	0.1494	0.2382	0.5264	0.3145	0.2335	0.2430
Aesthetics	0.0560	0.0595	0.1316	0.2096	0.2335	0.1823
Uniqueness	0.1121	0.0794	0.0658	0.1048	0.1868	0.1215
Price	0.0498	0.0476	0.0263	0.0262	0.0467	0.0911
Availability	0.0640	0.0298	0.0219	0.0262	0.0156	0.0304

Figure 25: Consistency Calculation

2. Computing the weighted sum value by adding the values in the rows

STEP 3: Calculating Consistency								
C.W	0.4483	0.2382	0.1316	0.1048	0.0467	0.0304		
Factors	Authenticity	Durability	Aesthetics	Uniqueness	Price	Availability	Weighted sum value	Criteria Weight
Authenticity	0.4483	0.7146	1.0528	0.4193	0.4202	0.2127	3.2678	0.4483
Durability	0.1494	0.2382	0.5264	0.3145	0.2335	0.2430	1.7050	0.2382
Aesthetics	0.0560	0.0595	0.1316	0.2096	0.2335	0.1823	0.8726	0.1316
Uniqueness	0.1121	0.0794	0.0658	0.1048	0.1868	0.1215	0.6704	0.1048
Price	0.0498	0.0476	0.0263	0.0262	0.0467	0.0911	0.2878	0.0467
Availability	0.0640	0.0298	0.0219	0.0262	0.0156	0.0304	0.1879	0.0304

Figure 26: Calculation of Weighted Sum Value

3. Calculating the ratio of each weighted sum value to the respective criteria weight, and averaging the ratio of the weighted sum value to the criteria weight.

STEP 3: Calculating Consistency									
C.W	0.4483	0.2382	0.1316	0.1048	0.0467	0.0304			
Factors	Authenticity	Durability	Aesthetics	Uniqueness	Price	Availability	Weighted sum value	Criteria Weight	WSV/CW
Authenticity	0.4483	0.7146	1.0528	0.4193	0.4202	0.2127	3.2678	0.4483	7.29
Durability	0.1494	0.2382	0.5264	0.3145	0.2335	0.2430	1.7050	0.2382	7.16
Aesthetics	0.0560	0.0595	0.1316	0.2096	0.2335	0.1823	0.8726	0.1316	6.63
Uniqueness	0.1121	0.0794	0.0658	0.1048	0.1868	0.1215	0.6704	0.1048	6.40
Price	0.0498	0.0476	0.0263	0.0262	0.0467	0.0911	0.2878	0.0467	6.16
Availability	0.0640	0.0298	0.0219	0.0262	0.0156	0.0304	0.1879	0.0304	6.19
								L.max=	6.64

Figure 27: Calculation of Ratio of Weighted Sum and Criteria Weight

Finally, the consistency ratio (CR) can be computed using the following equation (Eq. 2) suggested by Saaty (1987) to verify the consistency in the comparison.

Figure 28: Consistency Ratio-2

$$CR = \frac{CI}{RI} \quad (2)$$

Here,

CR is the consistency ratio

CI is the consistency index

RI is the random index which varies according to the number of factors used in the pairwise matrix.

Calculated λ_{\max}/L_{\max} :

λ_{\max}/L_{\max} is calculated as the ratio of each weighted sum value to the respective criteria weight, and then averaging the ratio of the weighted sum value to the criteria weight.

L.max	6.64

Figure 29: Calculation of L_{\max}

Calculated CI(Consistency Index):

Here, $L_{\max} - n$ is calculated by subtracting the value of L_{\max} i.e 6.64 by the total no. of factors that is equal to 6

L.max - n	0.64
n - 1	5
CI	0.13

Figure 30: Calculation of CI with L_{\max}

RI (Random index which varies according to the number of factors used in the pairwise matrix.)

Number of elements (n)	R.I.
3	0.52
4	0.89
5	1.11
6	1.25
7	1.35
8	1.40
9	1.45
10	1.49
11	1.51
12	1.54
13	1.56
14	1.57
15	1.58

Figure 31: Number of Elements

Since the number of factors used in the pairwise matrix is 6. Hence from table,

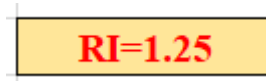


Figure 32: RI Value

Calculated consistency ratio(CR):



Figure 33: Calculated Consistency Ratio

Conditions:

1. If the CR is below 0.10, it means that the pairwise comparison matrix has an acceptable consistency.
2. Otherwise, If the CR is greater than or equal to 0.10 it means that pairwise comparison has inadequate consistency, and the comparison process must be repeated until the value of CR is achieved below 0.10 (Saaty,1987).

Following are the findings and their summary:

Consistency Ratio (CR):

The CR measures the consistency of pairwise comparisons in AHP.A CR value of 0.10 or less indicates acceptable consistency.

Reliable Decision Process:

When CR = 0.10:

Decision makers' judgments align well with the constructed hierarchy. The decision-making process is reliable. From our analysis,

we're evaluating souvenir options. If the CR is 0.10, it suggests consistent judgments regarding factors like Price, Uniqueness, Availability, Aesthetics, Authenticity, and Durability.

Confidence in Results:

A low CR provides confidence in the calculated weights and priorities. Decision makers can proceed with the chosen alternative. From our analysis, we're selecting a souvenir vendor based on factors such as Authenticity, Durability, Aesthetics and Uniqueness.

Validated Comparisons:

$CR \leq 0.10$ implies that the pairwise comparisons are consistent. Decision makers have considered trade-offs appropriately.

Remember that CR provides insight into the reliability of AHP results. While a CR of 0.10 is favourable, always critically assess the context and underlying assumptions.

CHAPTER 5

CONCLUSION

A thorough analysis of Indian customer's souvenir-buying habits produced a number of important conclusions. Decisions on travel and mementos are heavily influenced by social media, which highlights how crucial it is for businesses to have a good social media presence. In terms of demographics, genuine, handcrafted souvenirs are preferred by younger and wealthier customer segments, who are also more prone to be affected by social media. Natural scenery, cultural attractions, word-of-mouth recommendations from friends and family, and historical places are the main determinants of travel choices. Three important factors that were discovered to have a substantial impact on souvenir purchases were authenticity, durability, and aesthetics. Items in the middle of the price range were favoured, and uniqueness was important. The Analytical Hierarchy Process revealed that durability and authenticity were the most important factors. These results emphasize the multifaceted tastes of Indian consumers and the behavioural influence of social media. Companies should adjust their marketing plans and product offerings accordingly. The tastes of Indian customers for souvenirs are complex and impacted by various elements, including social media, authenticity, and aesthetics. For businesses, keeping up a strong social media presence is essential. Genuine, handmade souvenirs are preferred by younger and wealthier consumer segments. Travel decisions are influenced by cultural attractions, natural sceneries, and word-of-mouth recommendations from friends and family. To achieve customer needs, businesses need to strike a balance between authenticity, durability, and aesthetics. In the souvenir sector, this information helps shape targeted marketing strategies and product personalization.

CHAPTER 6

FUTURE SCOPE

This research will continue to be conducted in a number of areas. First, investigating how new technologies like augmented reality (AR) and virtual reality (VR) affect consumer's decisions to buy souvenirs may yield insightful information. Further research into cross-cultural variations in souvenir inclinations might improve our comprehension. It would also be advantageous to carry out longitudinal studies to monitor changes in customer behaviour over time. In order to make this study better, researchers could think about increasing the sample size, using qualitative approaches to learn more about the motives of consumers, and including a larger range of demographics. Furthermore, working together with legislators and industry stakeholders may result in sustainable souvenir practices and more successful marketing campaigns. In general, staying aware of changing customer preferences and market dynamics requires ongoing research and adaptation.

CHAPTER 7

SOCIAL IMPACT

There are important societal ramifications for the research findings on Indian customers' preferences for souvenirs. Businesses in the souvenir industry can customize their product offers and marketing tactics by highlighting authenticity, durability, and aesthetics. The impact of social media on the behaviour of consumers highlights the significance of keeping a robust online presence. More focused marketing initiatives can help attract younger customers who are impacted by social media. Furthermore, knowing what influences souvenir sales can help marketers develop more targeted and effective marketing campaigns. All things considered, this study helps the souvenir industry make well-informed decisions that benefit both customers and companies. In the future, more research can examine distinctive traits and inclinations in various cultural contexts, improving our comprehension and improving marketing strategies.

CHAPTER 8

REFERENCES

1. Boley, B. B., Magnini, V. P., & Tuten, T. L. (2013). Social media picture posting and souvenir purchasing behavior: Some initial findings. *Tourism Management*, 37, 27-30.
2. Zhang, J., Wei, X., Fukuda, H., Zhang, L., & Ji, X. (2021). A Choice-based conjoint analysis of social media picture posting and souvenir purchasing preference: A case study of social analytics on tourism. *Information Processing & Management*, 58(6), 102716.
3. Huang, S. C. L., Wang, C. Y., & Yan, Y. R. (2020). Motivational typology of online food souvenir shoppers and their travel-related intentions. *Sustainability*, 12(18), 7624.
4. Trivedi, J., & Rozaia, M. I. T. A. L. I. (2019). The impact of social media communication on Indian consumers travel decisions. *Journal of Communication: Media Watch*, 18(5), 5-18.
5. Multiple-criteria decision analysis
[https://en.wikipedia.org/wiki/Multiple-criteria_decision_analysis#:~:text=Multiple%2Dcriteria%20decision%2Dmaking%20\(business%2C%20government%20and%20medicine\)](https://en.wikipedia.org/wiki/Multiple-criteria_decision_analysis#:~:text=Multiple%2Dcriteria%20decision%2Dmaking%20(business%2C%20government%20and%20medicine))
6. Analytical Hierarchy Process
[https://www.passagetechology.com/what-is-the-analytic-hierarchy-process#:~:text=The%20Analytic%20Hierarchy%20Process%20\(AHP\)%20is%20a%20method%20for%20organizing,has%20been%20refined%20since%20then](https://www.passagetechology.com/what-is-the-analytic-hierarchy-process#:~:text=The%20Analytic%20Hierarchy%20Process%20(AHP)%20is%20a%20method%20for%20organizing,has%20been%20refined%20since%20then)