

# PEOPLE'S FOOD PREFERENCES IN SOUTH INDIAN CUISINE

*Project Report submitted to the*

**ST ALOYSIUS COLLEGE (AUTONOMOUS)**



**ESTD : 1880**

*in partial fulfilment of the degree of*

**BACHELOR OF SCIENCES**

by

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*Under the supervision of*

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to

**The Department of Statistics**

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**APRIL 2024**

**ST ALOYSIUS COLLEGE (AUTONOMOUS)**

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**ESTD : 1880**

**DEPARTMENT OF STATISTICS**

**PROJECT CERTIFICATE**

Certified that this is the bonafide record of project work done by Devayani sharma

During the year 2024 as a part of her B.Sc. (Statistics) VI semester course work.

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Project Guide

Head of the Department

Examiner

1.

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Date:

Place: Mangaluru

## DECLARATION

I **Devayani sharma**, hereby declare that the matter embodied in this report entitled “**People's food preferences in south indian cuisine**” is a bonafide record of project work carried out by me under the guidance and supervision of **(guide name)**, Department of Statistics, St Aloysius College (Autonomous), Mangaluru, Karnataka, India. I further declare that no part of the work contained in the report has previously been formed the basis for the award of any Degree, Diploma, Associateship, Fellowship or any other similar title or recognition of any other university.

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## **ACKNOWLEDGEMENTS**

Firstly, I would like to thank our Principal Rev. Dr. Praveen Martis SJ for providing the necessary facilities for the completion of this project work in our college.

I gratefully acknowledge my teachers at the Department of Statistics, St Aloysius College (Autonomous), Mangaluru, for their support during my project work.

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## **ABSTRACT**

- The project "People's Food Preferences in South Indian Cuisine" aims to explore and analyse the diverse culinary choices within South Indian cuisine.
- Through surveys, taste tests, and data analysis, this research investigates the factors influencing individuals' preferences, including cultural background, dietary habits, and personal tastes.
- By examining the popularity of specific dishes, ingredients, and cooking techniques, the study sheds light on regional variations and trends in South Indian food preferences. Furthermore, it seeks to identify potential avenues for innovation and adaptation in culinary practices to cater to evolving consumer tastes.
- this project contributes to a deeper understanding of the intricate relationship between food, culture, and individual preferences within the vibrant culinary landscape of South India

# CHAPTER 1

## 1.1 INTRODUCTION

South Indian cuisine is renowned worldwide for its rich flavours, diverse ingredients, and intricate culinary traditions. From the aromatic spices of Tamil Nadu to the coconut-infused delicacies of Kerala, and the tangy flavours of Andhra Pradesh to the hearty dishes of Karnataka, South Indian cuisine offers a tapestry of tastes that reflect the region's cultural heritage and geographical diversity. Within this culinary landscape, individuals' food preferences are influenced by a myriad of factors, including cultural background, regional variations, personal tastes, and dietary considerations. This introduction aims to provide an overview of these influences and their impact on people's choices in South Indian cuisine.

### Cultural Heritage and Tradition

The culinary heritage of South India is deeply rooted in its rich cultural tapestry, shaped by centuries of tradition, trade, and migration. Each state within the region boasts its unique culinary identity, influenced by historical interactions with neighbouring regions and foreign powers. For example, Tamil Nadu's cuisine is characterized by its use of aromatic spices such as coriander, cumin, and fenugreek, reflecting its historical connections with the spice trade routes. Similarly, Kerala's cuisine features an abundance of coconut-based dishes, a testament to the region's coastal geography and tropical climate.

### Regional Variations

Despite sharing some commonalities, South Indian cuisine exhibits significant regional variations, with each state and even sub-region offering its distinct culinary specialties. For instance, the cuisine of Andhra Pradesh is known for its fiery flavours and generous use of chili peppers, while Karnataka's cuisine incorporates a diverse array of ingredients such as lentils, rice, and jaggery. Within each state, there are further nuances in taste, preparation methods, and ingredient combinations, influenced by factors such as local climate, agricultural practices, and cultural customs.

### Personal Tastes and Preferences

Individuals' food preferences in South Indian cuisine are also shaped by their personal tastes, which may vary widely based on factors such as exposure to different flavours, culinary

experiences, and upbringing. For some, the bold and spicy flavours of dishes like Hyderabadi biryani or Chettinad chicken may be irresistible, while others may prefer milder options such as idli, dosa, or sambar. Moreover, dietary preferences, including vegetarianism, veganism, and gluten-free diets, play a significant role in shaping individuals' choices within South Indian cuisine, as many traditional dishes are inherently plant-based and gluten-free.

### Dietary Considerations

In addition to personal tastes, dietary considerations also influence people's food preferences in South Indian cuisine. With a growing awareness of health and nutrition, many individuals are opting for lighter, more wholesome options that are lower in calories and saturated fats. As a result, traditional South Indian dishes like dosa, idli, and rasam are gaining popularity for their perceived health benefits and digestibility. Furthermore, the availability of alternative ingredients and cooking techniques has opened up new possibilities for individuals with dietary restrictions, allowing them to enjoy South Indian cuisine without compromising on taste or nutrition.

People's food preferences in South Indian cuisine are influenced by a complex interplay of cultural heritage, regional variations, personal tastes, and dietary considerations. By understanding these factors, we can gain insights into the diverse and dynamic nature of South Indian gastronomy and appreciate the rich culinary traditions that have evolved over centuries. Through further exploration and appreciation of the nuances of South Indian cuisine, we can continue to savour and celebrate its flavours for generations to come.



## 1.2 LITRATURE REVIEW

In the study conducted by Lena Hallströma on Breakfast habits and factors influencing food choices at breakfast in relation on socio-demographic and family factors among European adolescents The HELENA Study they shown that Breakfast consumption and choice of food for breakfast was associated with region in Europe; sex; socio-environmental factors (parents) and personal factors (hunger, taste and health) are inappreciably associated with socio demographical factors. The main finding of this study was that European adolescent's breakfast consumption and choice of food for breakfast was associated with region in Europe; sex; socio-environmental and personal factors are inappreciably associated with socio-demographical l factors.

The previous study conducted by Lidia Wałodowska on Food choice models and their relation with food preferences and eating frequency in the Polish population: POFPRES study shown that the effectiveness of nutritional policy in Poland is currently related to the sensory and functional features of food. The greatest interest was aroused in Polish consumers by tasty and fresh food, followed by food which was healthy and cheap. The study by Ewa Babicz-Zielinska on Food preferences among the Polish young adults gender has no substantial influence on the rankings of food and its choice factors, some items and choice factors are differently scored by males and female students.

The research by Xuqi Chena, Zhifeng Gaob, and Brandon R. McFaddenc on Reveal Preference Reversal in Consumer Preference for Sustainable Food Products confirms the existence of preference reversal in a popular food product. Elisa De Marchi study on Time preferences and food choices confirm that both health- and environment-related attributes are relevant in consumer's choice.

The study concluded that the research by A.C. Hoek, D. Pearson on Healthy and environmentally sustainable food hoices: consumer responses to point-of-purchase actions concluded the responsiveness of consumers to the investigated measures was largely influenced by product familiarity and liking of the healthy and sustainable 11 alternative. Price was the most determinant food quality attribute for the entire sample, followed by taste, familiarity and convenience.

The study conducted by M.C. Onwezen, M.J. Reinders on The Development of a Single-Item Food Choice Questionnaire concluded that Convenience was more important in out-of-home contexts (work/school and on the move) than it was at home, whereas taste was more important at home than in out-of-home contexts. Furthermore weight, healthiness and Naturalness were less important for snack consumption than for meal consumption.

The study conducted by E. Monteleone, S. Spinelli, C. Dinnella on Exploring influences on food choice in a large population sample: the Italian Taste Project has explored the influences on food choice and the complex interplay of factors contributing to food preferences, Genetic, physiological, personality, sociocultural factors are considered associations among personality, attitudes, PROP, familiarity and liking.

### 1.3 OBJECTIVE

- To investigate the correlation between age and dose serving preferences—Crispy, Medium, and Soft—to understand how these preferences vary across different age groups.
- To investigate the association between age and the frequency of consuming South Indian food using a chi-square test. It aims to determine if significant differences exist in eating habits across different age groups regarding South Indian cuisine.
- To examine whether South Indian food is perceived to taste better in South India due to local ingredients and traditional cooking methods.
- To Examine the Preferences in South Indian Cuisine.
- To Examine the Frequency of Preference for South Indian Breakfast.
- To Examine Preferred Locations for Enjoying South Indian Cuisine.
- To Examine Preferences in Dose Preparation and Serving Styles.
- To Examine the Consumer Preferences for Payment Methods in Purchasing South Indian Cuisine.

## CHAPTER 2

### 2.1 METHODOLOGY

The minimum sample size was set at 384 samples, and a total of 384 responses were collected. Data collection was done using a spreadsheet linked to the Google form questionnaire. The Google form was circulated among the people and data collection was done during the time period from 13th of April to 19th of April 2023. Data was imported to SPSS and analysed.

Some of the tests and charts used are:

#### **CHI-SQUARE TEST**

The Chi-square test is a statistical tool used to assess whether observed frequencies in a contingency table deviate significantly from expected frequencies.

It is commonly employed to test for statistical associations between categorical variables in research studies.

#### **KRUSKAL-WALLI'S TEST**

The Kruskal-Wallis test is a non-parametric method that tests for differences in median values among three or more independent groups.

This test is particularly useful when the data do not meet the assumptions necessary for one-way anova, such as normality.

#### **BAR DIAGRAM**

A bar diagram (or bar chart) is a graphical representation of data where the lengths of bars are proportional to the values they represent.

It is used to compare amounts, frequencies, or other measures across different categories.

#### **PIE CHART**

A pie chart is a circular graph divided into slices to illustrate numerical proportions; each slice's angle and area are proportional to the quantity it represents.

Pie charts are best used for displaying the composition of a whole, showing how individual parts contribute to total amounts.

## 2.2 STATISTICAL ANALYSIS

**2.2.1) to investigate the correlation between age and dose serving preferences—Crispy, Medium, and Soft—to understand how these preferences vary across different age groups.**

Null Hypothesis (H0): There is no significant association between age and dose preference (crispy, medium, and soft).

Alternative Hypothesis (H1): There is a significant association between age and dose preference (crispy, medium, and soft).

### Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	98.403 <sup>a</sup>	46	<.001
Likelihood Ratio	84.329	46	<.001
N of Valid Cases	301		

a. 66 cells (91.7%) have expected count less than 5. The minimum expected count is .07.

The Chi-square test results demonstrate a significant association between age and dose preference. Considering a sample size of 301 valid cases, the null hypothesis is rejected, hence the alternative hypothesis is accepted. Hence we conclude that there is a significant association between age and dose preference (crispy, medium, and soft).

### 2.2.2) to investigate the association between age and the frequency of consuming South Indian food using a chi-square test

Null Hypothesis (H0): There is no association between age and the frequency of consuming South Indian food. Age does not influence how often individuals eat South Indian cuisine.

Alternative Hypothesis (H1): There is an association between age and the frequency of consuming South Indian food. Age influences how often individuals eat South Indian cuisine.

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1913.261 <sup>a</sup>	416	<.001
Likelihood Ratio	490.004	416	.007
N of Valid Cases	383		

Since both Pearson chi-square and the likelihood ratio chi-square values are likely much greater than the corresponding critical values for 416 degrees of freedom at a significance level of 0.05, we can reject the null hypothesis. This suggests that there is a statistically significant association between age and the frequency of consuming South Indian food. Therefore, results indicate that age significantly influences how often individuals eat South Indian cuisine, and there are statistically significant differences in eating habits across different age groups concerning South Indian food.

Hence there is an association between age and the frequency of consuming South Indian food. Age influences how often individuals eat South Indian cuisine.

**2.2.3) to examine whether South Indian food is perceived to taste better in South India due to local ingredients and traditional cooking methods.**

Null Hypothesis (H0): South Indian food is perceived to taste the same in South India as it does in other regions.

Alternative Hypothesis (H1): South Indian food is perceived to taste better in South India compared to other regions.

**Chi-Square Tests**

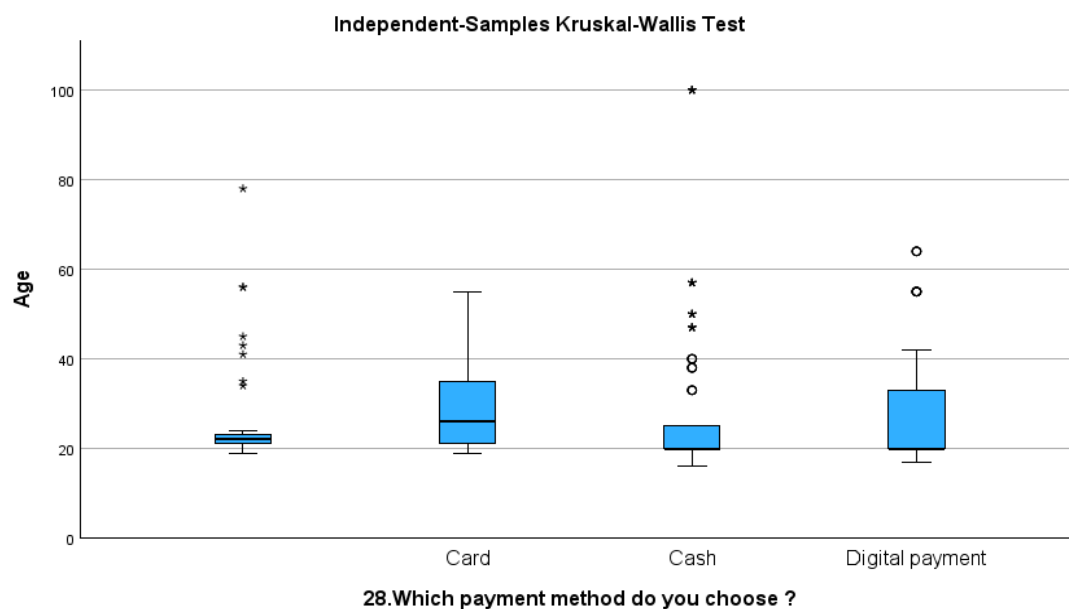
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	773.310 <sup>a</sup>	160	<.001
Likelihood Ratio	413.215	160	<.001
N of Valid Cases	383		

The rejection of the null hypothesis suggests that there is a statistically significant difference in how South Indian food is perceived, with it likely being perceived as tasting better in South India compared to other regions. This conclusion supports the alternative hypothesis that local ingredients and traditional cooking methods contribute significantly to the perceived taste of South Indian food in its region of origin.

**2.2.4) to examine how age influences preferences for different payment methods, such as digital, card, and cash.**

Null Hypothesis (H0): There is no association between age and preferred payment methods, age does not affect whether individuals prefer digital payment, payment by card or cash.

Alternative Hypothesis (H1): There is an association between age and preferred payment methods, different age groups have different preferences for digital payment, payment by card or cash.



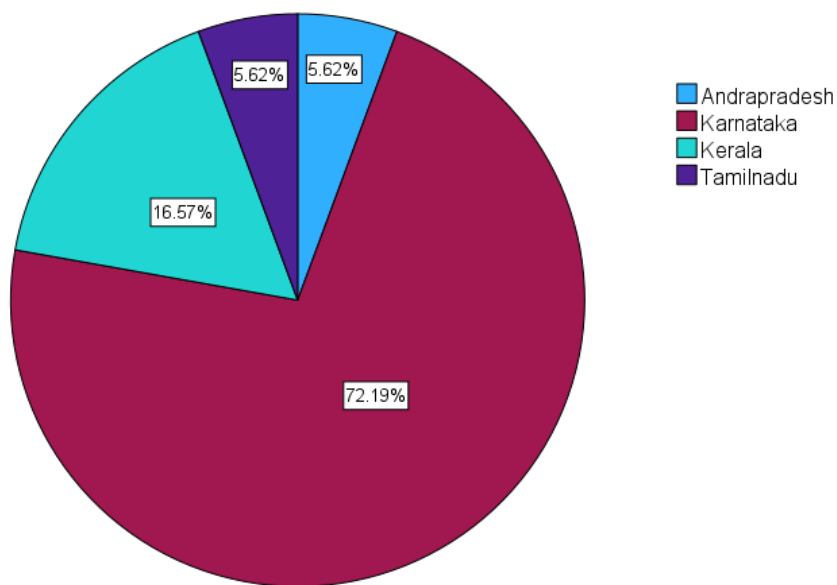
The conclusion is that the preferences for payment methods among different age groups are statistically significantly different. Specifically, it appears that younger age groups prefer digital and card payments more than older age groups, who might lean more towards cash.

Hence there is an association between age and preferred payment methods, different age groups have different preferences for digital payment, payment by card, or cash.



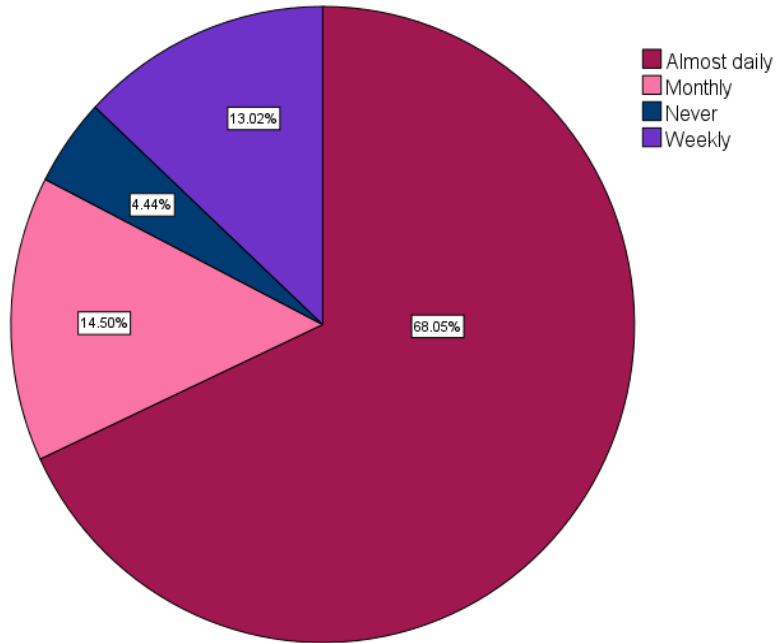
## 2.3 GRAPHICAL REPRESENTATION

### 2.3.1) To Examine the Preferences in South Indian Cuisine



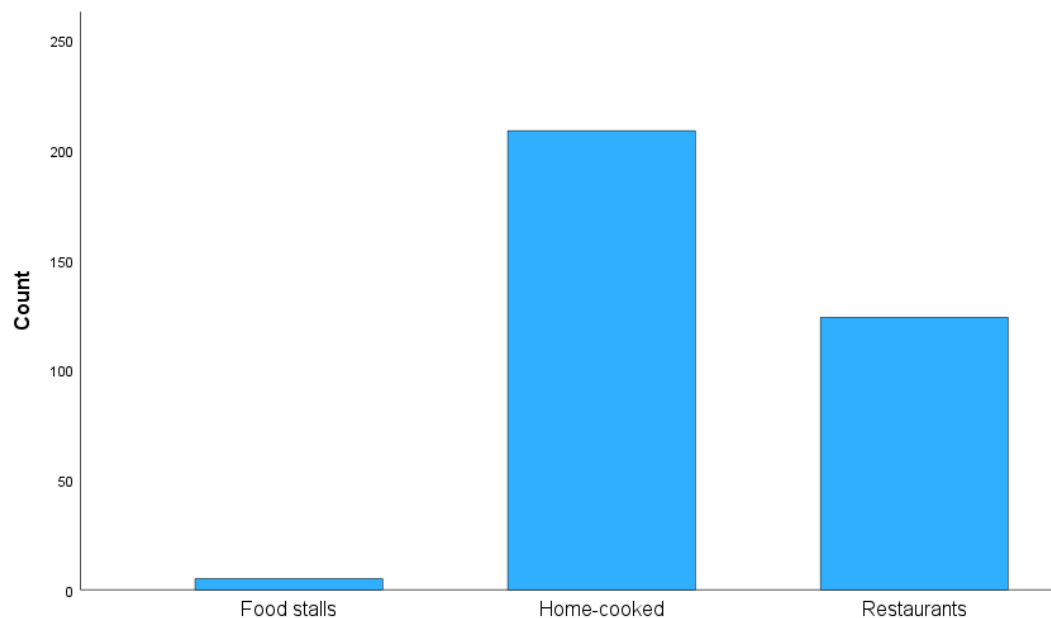
The results indicate a strong preference for Karnataka cuisine, which dominates the chart with 72.19% of the votes, highlighting its widespread popularity. Kerala cuisine also holds a significant preference, securing 16.57% of the votes. In contrast, both Andhra Pradesh and Tamil Nadu have equal but lower preferences, each garnering only 5.62% of the votes. This data suggests that the flavours and dishes from Karnataka are particularly favoured among the respondents.

### 2.3.2) To Examine the Frequency of Preference for South Indian Breakfast.



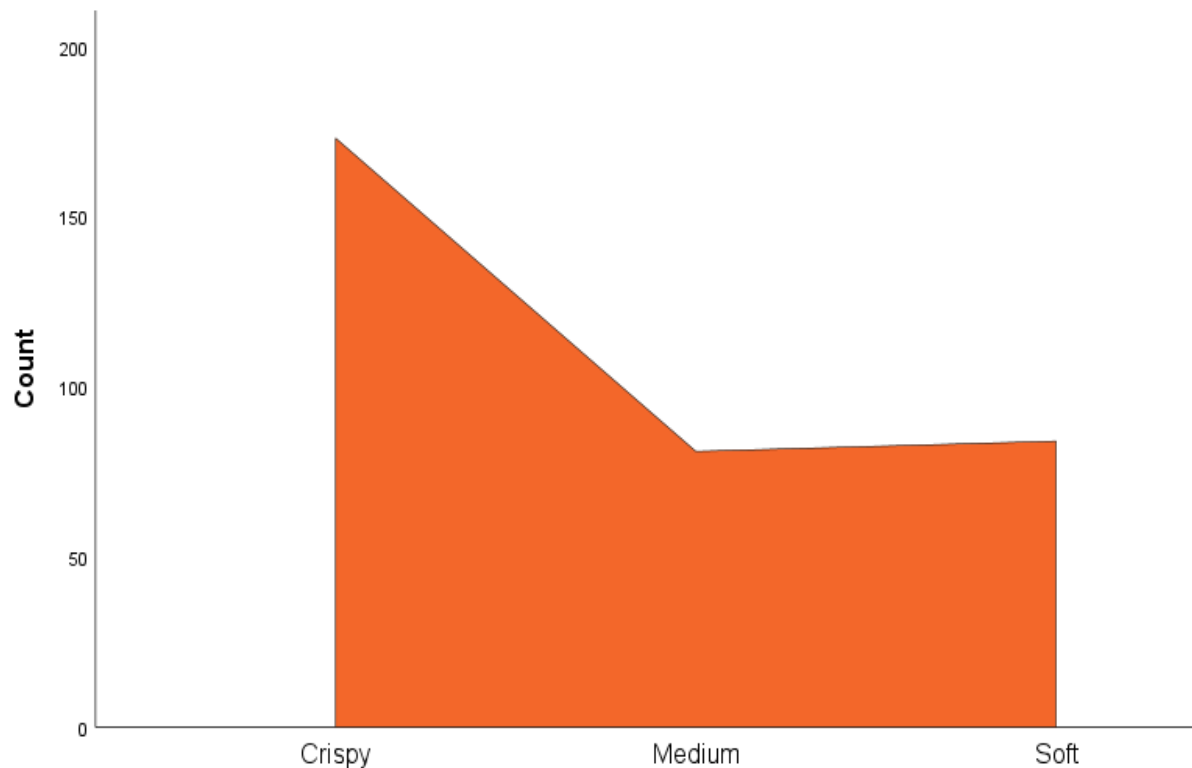
The pie chart results reveal that South Indian breakfast cuisine enjoys widespread popularity, with a significant 68.05% of respondents indulging almost daily, indicating it's a staple in their daily diet. Additionally, 14.50% enjoy it monthly, suggesting it serves as an occasional treat for some. Regular but less frequent consumption is noted among 13.02% who prefer it weekly. However, there remains a small fraction, 4.44%, who never opt for South Indian breakfast, highlighting that despite its popularity, it's not universally favoured. Overall, these patterns reflect a strong and consistent preference for South Indian breakfast cuisine among the majority.

### 2.3.3) To Examine Preferred Locations for Enjoying South Indian Cuisine.



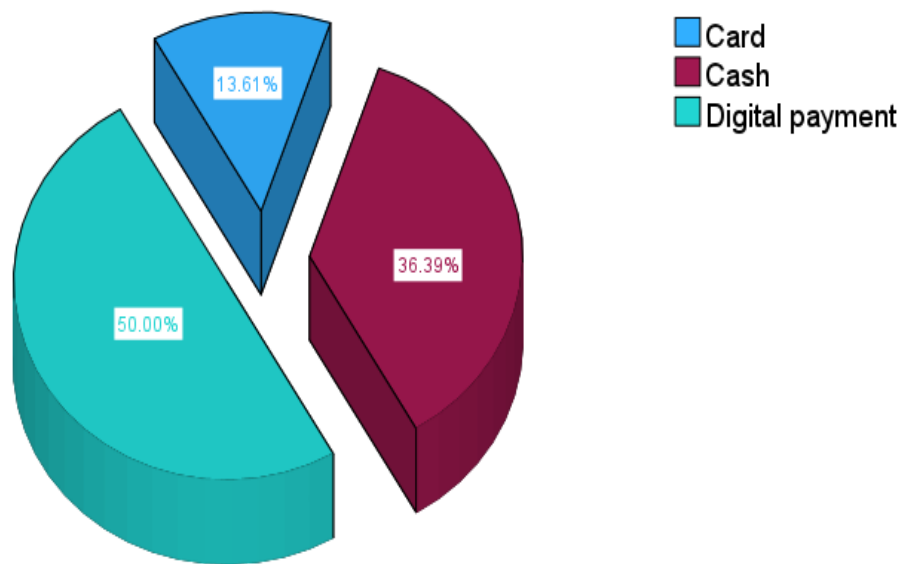
The bar chart clearly illustrates a strong preference for home-cooked South Indian cuisine, which received the highest number of responses, indicating that many people enjoy the authenticity and comfort of homemade dishes. Restaurants, while still a popular choice, garnered fewer responses, suggesting that while they are frequented, they might not match the appeal of a home-cooked meal. Food stalls received the least interest, which could be due to perceptions of quality, variety, or the ambiance offered by the alternatives. This distribution highlights the significant value placed on homemade South Indian food, likely due to its freshness, healthiness, and adherence to traditional recipes.

#### 2.3.4) To Examine Preferences in Dose Preparation and Serving Styles.



The survey results reveal a strong preference for crispy doses, with more of respondents favouring this texture, highlighting a significant appreciation for the crunch and golden-brown finish of well-fried doses. Medium-textured doses, which offer a balance between crispness and softness. Soft doses are slightly more preferred than medium ones, with the same level of participants enjoying their more pliable and absorbent nature, ideal for scooping up chutneys and sambar. This data indicates a diverse range of preferences for doses textures among the surveyed individuals, with each style having its own dedicated following, though crispy doses emerge as the clear favourite.

### 2.3.5) To Examine the Consumer Preferences for Payment Methods in Purchasing South Indian Cuisine.



The survey results show a significant preference for digital payments among consumers, with 50% opting for this method when purchasing South Indian cuisine. This indicates a shift towards more modern, tech-savvy payment options, possibly due to the convenience and safety digital transactions offer. Cash payments, however, still hold substantial ground, with 36.39% of respondents favouring this traditional method, reflecting a segment of the population that values or requires cash transactions. Card payments are less favoured, with only 13.61% of participants using this method, which may suggest some reluctance to adopt card transactions over more instantaneous digital means or cash. Overall, the data highlights varied payment preferences among consumers, emphasizing the need for restaurants to accommodate multiple payment options to cater to diverse consumer needs.

## CHAPTER 3

### 3.1 DISCUSSION

This project aims to explore and analyse the culinary preferences of individuals within the context of South Indian cuisine, focusing on various aspects such as regional variations, traditional dishes, payment methods, hygiene standards at roadside stalls, and preferences for specific food items. Through comprehensive surveys and data analysis, the project seeks to uncover valuable insights into the diverse culinary landscape of South India and understand the factors influencing people's food choices.

The project begins by conducting surveys among a diverse sample of individuals from different regions of South India, including Karnataka, Tamil Nadu, Kerala, Andhra Pradesh, and Telangana. Participants are asked a series of questions related to their food preferences, including their favourite South Indian dishes, preferred accompaniments, payment methods at food stalls, perceptions of hygiene standards, and preferences for specific meal times. Data collected from the surveys are then meticulously analysed using statistical methods to identify trends, patterns, and correlations among respondents' responses. Key areas of focus include the prominence of Karnataka's culinary culture, the shift towards digital payment methods, preferences for specific dishes such as dosa, and concerns about hygiene standards at roadside stalls.

The project also explores the influence of demographic factors such as age on food preferences, particularly concerning dosa, a popular South Indian dish. By examining the association between age groups and dosa preferences, the project sheds light on how generational differences impact individuals' culinary choices. Furthermore, the project investigates the affordability and accessibility of South Indian cuisine by analysing the prices of dishes at roadside stalls and their perceived hygiene standards. Insights gained from this analysis provide valuable information for policymakers, businesses, and consumers alike, informing strategies to improve food safety and enhance the overall dining experience.

This project offers a comprehensive exploration of people's food preferences in South Indian cuisine, revealing the rich culinary traditions, evolving consumer preferences, and challenges facing the culinary industry in the region. By understanding and addressing these factors, stakeholders can work towards promoting culinary diversity, enhancing food safety standards, and ensuring a delightful culinary experience for all.

## CHAPTER 4

### 4.1 CONCLUSION

The analysis confirmed a significant association between age and serving preferences (crispy, medium, and soft). This illustrates that preferences for food texture vary among different age groups, reflecting possible shifts in dietary needs or sensory preferences that are age-related.

There is a significant link between age and how frequently South Indian food is consumed, indicating that age impacts dietary habits, potentially due to varying exposure to or acceptance of specific cuisines across generations.

It was found that South Indian food is perceived to taste better within its region of origin than elsewhere, suggesting that local ingredients and traditional cooking methods enrich flavour and overall dining experience, enhancing the authenticity that is highly valued by both locals and visitors.

The results from Kruskal walli's test revealed a significant association between age and preferred payment methods, including digital payments, payments by card and cash. This outcome demonstrates that different age groups show varying inclinations towards specific payment technologies, which could be influenced by factors such as technological familiarity, security concerns, or the convenience offered by different payment options.

Karnataka cuisine enjoys the highest popularity among the surveyed regions, clearly preferred over Kerala, Andhra Pradesh, and Tamil Nadu cuisines. This pronounced preference highlights a regional bias that reflects both cultural pride and specific palate preferences.

South Indian breakfast dishes are a daily staple for a large majority of respondents, indicating their deep-rooted dietary habits and cultural significance. The breakfast is enjoyed with varying frequency by others, demonstrating its essential role in South Indian dietary routines.

Home-cooked South Indian cuisine is favoured over options available at restaurants or food stalls. This preference points to the significant value placed on homemade food for its authenticity, freshness, healthiness, and adherence to traditional recipes.

Crispy doses are the most favoured for their crunch and golden-brown finish, followed by soft doses, which are appreciated for their ability to scoop up accompaniments like chutneys and sambar. Medium-textured doses are also enjoyed, showcasing diverse preferences for dose textures with a clear inclination towards crispiness.

Digital payment methods are increasingly preferred due to their convenience and safety, although cash remains a strong contender, indicating that traditional cash transactions still hold considerable importance. Card payments are less favoured, suggesting some resistance towards card usage compared to more instantaneous digital methods or cash.



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