

Consumer Product and Brand Choice in the Ethnic and Western Dry Savouries Snacks Consumption

Mariappan Gnanaprakash^{*1}

Assistant Professor (SL.G)

Mepco School of Management studies,
Mepco Schlenk Engineering College, Tamil Nadu, India.
gnanaprakash@mepcoeng.ac.in

Mohan Raj. R²

II MBA

Mepco School of Management studies,
Mepco Schlenk Engineering College, Tamil Nadu, India.
mohan956685@gmail.com

Dr. Jaisun M³

Assistant Professor,

Department of Business Administration, VHNSN College, Tamil Nadu, India
gnanaprakash@mepcoeng.ac.in

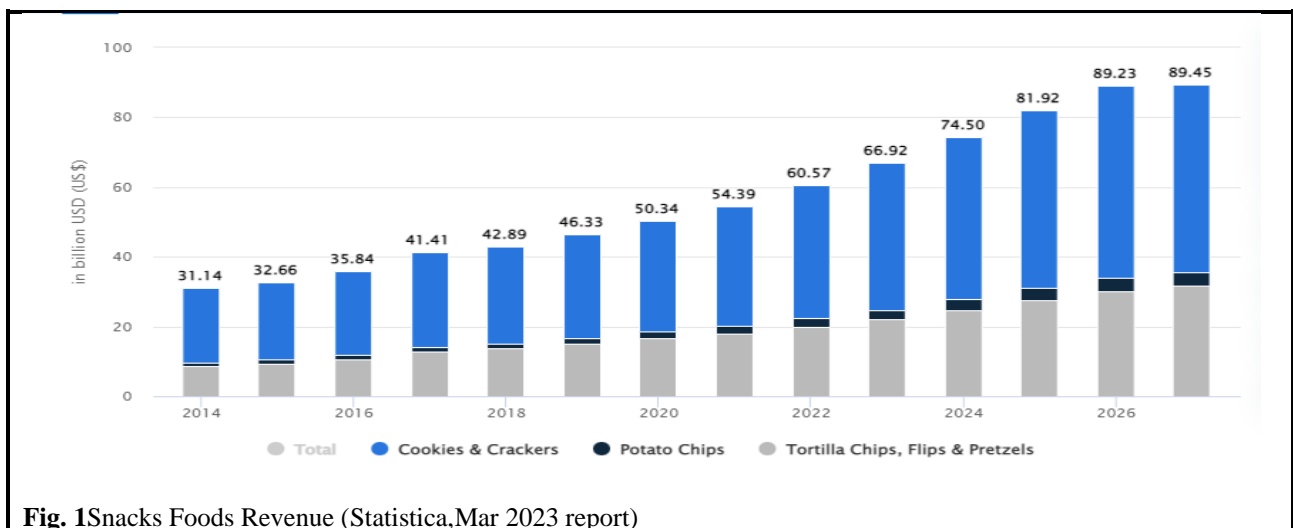
ABSTRACT

Snacking has become an integral part of the modern-day consumer's lifestyle, and the market for snacks has witnessed tremendous growth in recent years. This paper aims to compare the consumer preference towards Western and Ethnic snacks. The study investigates the consumer preference on Western and Ethnic savoury snacks available in modern trade outlets. The International, National, and Regional brands available in the store were considered in the study. The responses were collected from consumers who visit modern trade outlet in Madurai. A total of 414 respondents were surveyed. The study employed a structured questionnaire to gather data on various factors such as snacks brand preference and factors influencing the snacks purchase such as taste, price, packaging, and product attributes.

Generally respondents prefer ethnic snacks over western snacks. The number of respondents preferring western snacks next to ethnic snacks is found to more among younger generation that is below 40 years of age compared to consumers whose age is above 40. Regional brands were more preferred because of low price and variety. Packaging wise respondents rated western snacks high. Taste and price were the primary drivers of consumer preference. In Western snacks category chips and popcorn are highly preferred. In ethnic snacks Mixer and Murukku are the most preferred snacks items. Outside the home, respondents prefer to have western snacks because of the reason that respondents perceive it as a decent act and the convenient packaging. Consumers' intention to buy snacks online is not evolved. Consumers mostly prefer to buy snacks in bakery and exclusive snacks store.

Introduction

The Indian snacks market size reached INR 38,603 Crore in 2022 [26]. The snack industry has been growing steadily over the years, with a variety of options available to consumers. While Western snacks such as chips, cookies, and chocolates have been popular for decades, ethnic snacks from different parts of the world are also gaining in popularity.



Consumers today are more diverse and adventurous in their snacking choices, leading to an increase in demand for ethnic snacks. Snacks are foods consumed between meals or as a replacement for a meal. They are an essential part of our daily diet and are consumed by individuals of all ages. Over the years, there has been a growing interest in snacks due to their convenience, affordability, and potential health benefits. This review of literature will provide an overview of recent studies on snacks, highlighting their nutritional content, health benefits, and potential risks.

The purpose of this paper is to review the literature on consumer preferences towards Western and ethnic snacks, as well as empirical evidence from relevant studies, and provide insights into the snack market.

Literature Review

a. Consumer Preference

Consumer preference refers to the subjective evaluation of various products or services by consumers, which influences their purchasing decisions [14].

Snack consumption has increased worldwide in recent years, and consumers are becoming increasingly health-conscious [42] found that consumers' preference for healthy snacks is increasing, and they are willing to pay a premium price for healthy snacks. Consumers prefer snacks that are low in calories, fat, and sugar[40] brand familiarity also plays a significant role in consumer preference towards snacks. Consumers are more likely to purchase snacks from a familiar brand compared to an unfamiliar brand. The packaging design and flavour are essential factors that influence consumer preference for snacks.

b. Factors influencing Consumer Preference

The factors that influence consumer preference of durable goods include product quality, brand reputation, price, packaging, and advertising; perceived quality, brand reputation, and product design; Perceived quality has the biggest influence on consumer preference [14] [39] found that taste is the most crucial factor influencing consumer preference for snacks. Consumers are willing to compromise on the nutritional value of snacks if the taste is good. The packaging and price are important factors that influence consumer preference for snacks [15] explored the factors influencing consumer preference for organic food products. The three most significant factors affecting customer choice for organic food are perceived health advantages, environmental concerns, and taste. Consumers are looking for healthier snack options as they become more health conscious. However, they still prefer western snacks over traditional ones. [16] opined that Indian consumers perceived western snacks as being healthier than traditional Indian snacks. Taste and flavour are important factors that influence consumer preference for western snacks. A study by [17] found that Korean consumers preferred western snacks over domestic ones because of their unique taste and flavour. Consumers tend to be loyal to established western snack brands. French consumers preferred established American snack brands over new domestic ones [18]. [35] in his work mentioned that Pretzels is a popular Western snack among Korean adolescents. [28] explored the influence of taste, healthiness, and cultural background on consumers' snack choices; taste is the most important factor in snack choice.[41] found that the packaging design of snacks is an essential factor that influences consumer preference. Consumers are attracted to snacks with visually appealing packaging design. Brand name and price are significant factors that influence consumer preference for snacks.

c. Ethnic Snacks

[29] examined the factors that influence the consumption of ethnic snacks in South Korea; flavour, healthiness, and perceived authenticity were the most important factors that influenced consumers' purchasing decisions. The ethnic snacks can provide important sources of nutrition and income for rural households in India [36] Product quality, brand reputation, and price are the most important factors that influence consumers' decision to purchase ethnic snacks [38].A study conducted by Yang et al. (2019) found that taste is the most important factor influencing consumer preferences for snacks. Consumers are more likely to choose snacks that taste good, regardless of their health benefits. However, health concerns are also a significant consideration for many consumers, especially those who are health-conscious. [15] found that convenience is the most important factor for consumers when choosing snacks. Consumers prefer snacks that are easy to carry and consume, especially when they are on-the-go.[21] found that consumers with a strong cultural identity are more likely to choose ethnic snacks that are associated with their cultural background. Similarly, a study conducted by [29] found that consumers who are interested in exploring different cultures are more likely to choose ethnic snacks. Snacking has become a ubiquitous part of modern life, with people snacking on the go, at home, and at work. According to a report by Grand View Research, the global snack market was valued at \$439.9 billion in 2020 and is expected to grow at a CAGR of 6.4% from 2021 to 2028. The snack market can be broadly classified into two categories: Western snacks and ethnic snacks. Western snacks include chips, cookies, and chocolates, while ethnic snacks include samosas, pakoras, and other traditional snacks.

a. Nutritional Content of Snacks Health Benefits of Snacks:

Snacks are an important source of nutrients such as carbohydrates, protein, vitamins, and minerals. A study conducted by [44] found that snacks contributed to 27% of daily energy intake in adults. However, the nutritional content of snacks varies depending on the type of snack consumed. For instance, savoury snacks such as chips, crackers, and popcorn are often high in salt and fat, while sweet snacks such as cookies, cakes, and candy are high in sugar and calories. In contrast, fruits, nuts, and seeds are healthy snack options as they are rich in fibre, vitamins, and minerals [43]. Several studies have shown that snacks can have potential health benefits. For instance, consuming snacks that are high in protein can help to reduce hunger and promote weight loss [13]. Similarly, eating nuts and seeds as snacks can help to reduce the risk of cardiovascular diseases [24]. Additionally, fruits and vegetables, when consumed as snacks, can improve gut health and reduce the risk of chronic diseases [23].

b. Potential Risks of Snacks:

Despite the potential health benefits of snacks, some types of snacks can pose risks to health. For instance, consuming sweet snacks such as candy and soda can increase the risk of obesity, diabetes, and other chronic diseases [22]. Similarly, consuming snacks that are high in salt can increase blood pressure and increase the risk of cardiovascular diseases (He and [17]. Additionally, consuming snacks late at night can disrupt sleep patterns and lead to weight gain [13].

This study aims to understand the consumer preference towards Western and Ethnic snacks and identify the factors that influence their purchasing decisions. By understanding these preferences, snack manufacturers can tailor their products to meet the demands of their target audience and create a competitive edge in the market.

Methods**Objectives of the study**

- To analyse the Consumer Behaviour regarding Dry savouries snacks purchase.
- To examine the factors influencing the consumer product and brand choice regarding dry savouries snacks.

Research hypothesis

H1: Association between Demography and Dry savouries snacksconsumption behaviour

H1a: Age is having significant impact on the Dry savouries snacksConsumption.

H1b: Gender has significant impact on the Dry savouries snacksConsumption.

H1c: Education has significant impact on the Dry savouries snacks Consumption.

H1d: Marital Status has significant impact on the Dry savouries snacks Consumption.

H1e: Family type has significant impact on the Dry savouries snacks Consumption.

H1f: Family size has significant impact on the Dry savouries snacks Consumption.

H1g: Location has significant impact on Dry savouries snacks Consumption.

H1h: Income of the house hold has significant impact on the Dry savouries snacks.

H3: Situational factors have significant impact on the Dry savouries snacks Consumption.

H4: There is association between Marketing Mix & Dry savouries snacks Consumption.

H5: There is association between Reference groups &Dry savouries snacks Consumption.

H6: Life style of consumers has significant impact on the Dry savouries snacks Consumption.

H7: There is association between Ethnocentrism and Dry savouries snacks Consumption

Research Design:

The research design used in this study is Descriptive in nature.

Nature of data:Both primary and secondary data are used for the research.

Primary data:The information required for this research was collected from the respondents, using a structured questionnaire through survey.

Secondary data:Secondary data for this research was obtained from the journals, literature and the various website.

Method of Data Collection:The primary data was collected by direct survey method using a questionnaire from persons consumes the various snacks brands.

Data Collecting Instrument:Structured Questionnaire was used as the data collection instrument.

Population represents who consume savouries snacks brands.

Population size is unknown.

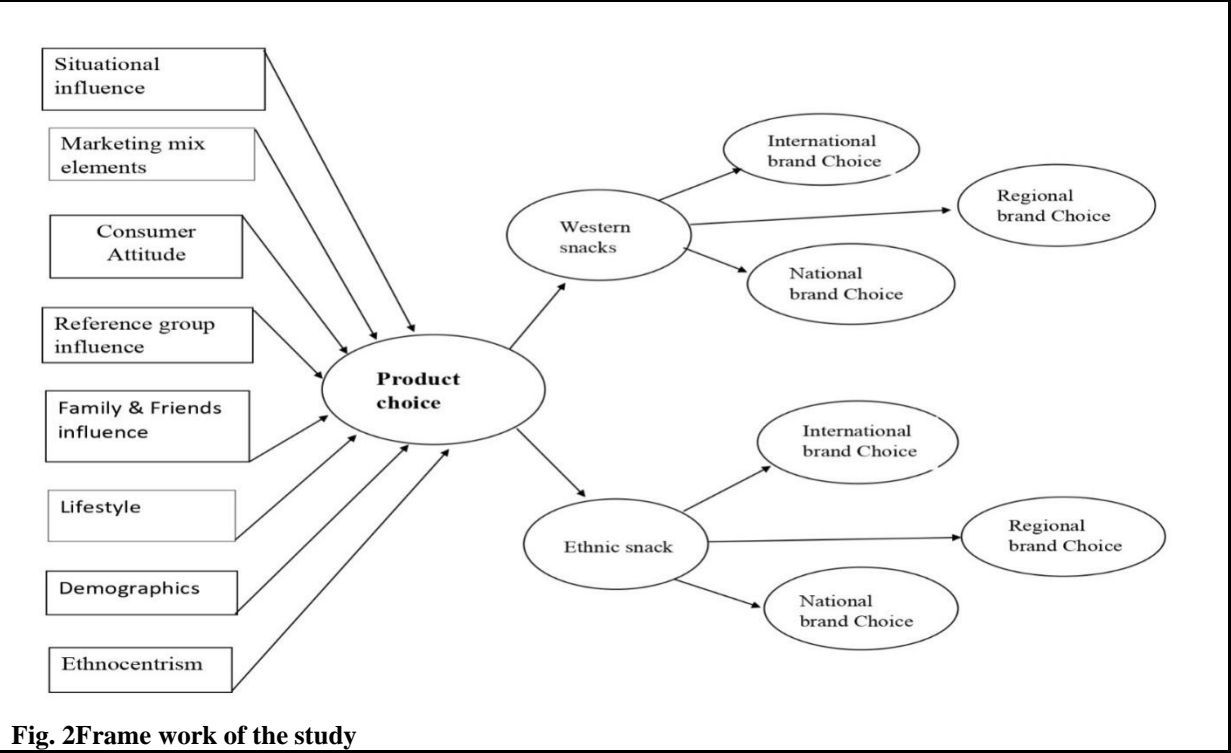
Sample Size:The sample size is 414 and it is collected from people who visit modern trade outlet in Madurai and consume savouries snacks brands.

Sampling time:The sampling period starts from Jan 5th, 2023 to Feb 18th, 2023.

Sampling Method:The sampling method used in this research is convenience sampling method

Tools used for analysis:Chi-Square Cross tab, Bar chart, Mean, Column chart

Proposed framework



Statistical analysis

The primary data received from respondents is entered in the excel spread sheet and is imported to SPSS software. The data cleaning and trimming is done before the start of the analysis. The frequency table, other relevant data visualisation tools are used in the study to analyse and present the data. The proposed model of Snacks buying behaviour is statistically analysed using AMOS software. The regression weights are interpreted. The results obtained from the statistical analysis are discussed in the results section. Chi square analysis is used to analyse the association between demographic variables and the consumer snacks buying behaviour.

Participants

The demography and Geography of the respondents of the study are summarised in the given table below.

Table 1 Demographics of the respondents

Age	Below 20	32	7.73%
	20-40	256	61.84%
	40-60	108	26.09%
	Above 60	18	4.35%
Gender	Male	329	79.47%
	Female	85	20.53%
Educational Qualification	Doctorate	10	2.42%
	Post Graduate	116	28.02%
	Under Graduate	196	47.34%
	HSC	92	22.22%
Marital status	Married	208	50.24%
	Unmarried	206	49.76%
Profession	Student	87	21.01%
	Homemaker	40	9.66%
	Salaried Employee	206	49.76%
	Business	81	19.57%
Family type	Nuclear family	317	76.57%
	Joint family	97	23.43%

Family annual income	Below 3 lakh	41	9.90%
	3 lakh – 5 lakh	110	26.57%
	5lakh – 10 lakh	177	42.75%
	Above 10lakh	86	20.77%
Family size	2 member	44	10.63%
	3 member	187	45.17%
	4 member	118	28.50%
	More than 4 member	65	15.70%
Location	Urban	316	76.32%
	Rural	99	23.68%

Results and discussions

The results of the analysis of the primary data collected from the consumers are presented in this section. The consumer behaviour on dry savouries snacks is detailed discussed below.

1. Consumer Snacks Purchase behaviour

The consumer preferred snacks type, snacks item, snacks brand, store and other consumption related aspects are discussed in the section.

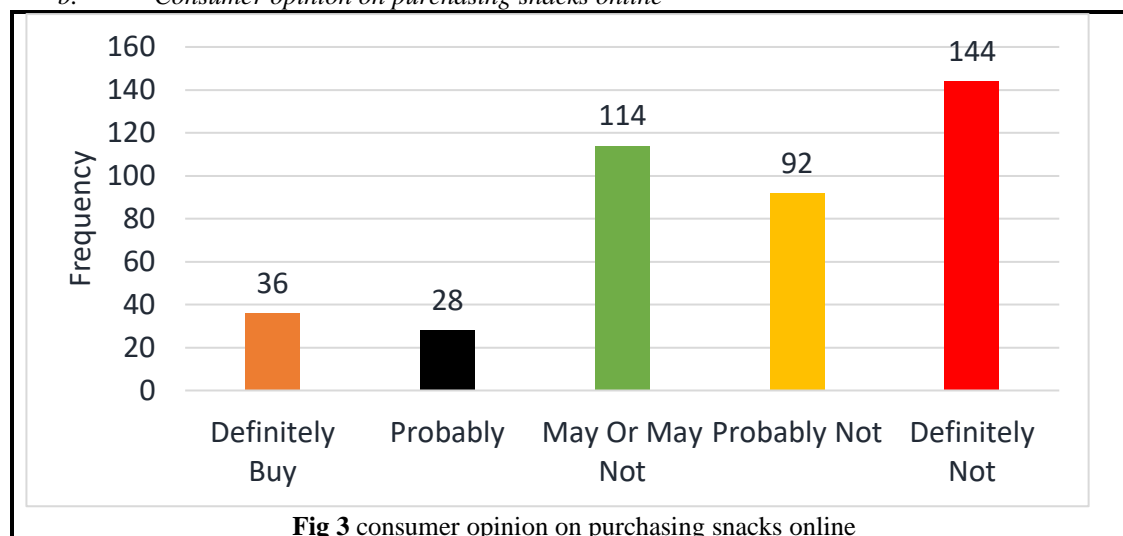
a. Store preferred by consumers in dry Savouries Snacks purchase

Table 2 Types of stores preferred

SNo	Types of stores	No.of respondents
1	Exclusive Savoury store	59
2	Bakery	148
3	Supermarket	122
4	Other(local store, Grocery)	85

Bakery with 148 occurrences, showing that customers like to buy savouries in the bakery a lot. With 122 occurrences, "supermarket" is the second most preferred store type. The surprising finding is with 59 occurrences, the Exclusive Savoury shop is the least preferred type of store among the available possibilities. All International Snacks Brands are available in supermarkets and Bakery. In exclusive savoury stores regional snack brands available.

b. Consumer opinion on purchasing snacks online



It appears that a very few of consumers inclined to buy snacks online. Additionally, a considerable proportion of consumers (28%) are likely to make online snack purchases, categorized as "Probably." However, a majority of consumers (144+92 out of 414) are unlikely to make online snack purchases. There is a range of attitudes towards online snack purchases among consumers, with a significant portion being hesitant or unwilling to make such purchases, while others are more open to the idea. Further analysis and contextual information would be needed to understand the underlying factors influencing these responses, such as consumer preferences, trust in online shopping, perceived convenience, and pricing considerations.

c. *Consumer preferred snacks***Table 3** Consumer preferred snacks

#	Consumer Preference	No of respondents
1	Only western snacks	24
2	Mostly western snacks	30
3	Equally western and ethnic snacks	111
4	Mostly ethnic snacks	84
5	Only ethnic snacks	165

More survey participants favoured ethnic snacks over western munchies. A sizable portion of respondents (111) stated an equal preference for both western and ethnic snacks, whereas the bulk of respondents (165) stated a preference for exclusively ethnic snacks. With 30 respondents saying they prefer largely western snacks and 24 saying they prefer solely western snacks.

d. *Consumer preferred snacks item***Table 4** Consumer preferred snacks item

Product choice	Products	Frequency
Ethnic snacks	Mixture	70
	Murukku	66
	Pakoda	61
	Seeval	64
	Sev	55
	Thattai	55
	I don't like	43
Western snacks	Chips	114
	Fries	77
	Popcorn	90
	Tacos	44
	I don't like	89

According to the survey, ethnic snacks are popular. Mixture is the most preferred ethnic snacks, with 16.91% of respondents choosing it above Murukku (15.94%), Pakoda (14.73%), Seeval (15.46%), Sev (13.29%), and Thattai (13.29%). Among the Western snacks, Chips coming in first place with 27.54% preference, followed by Fries with 18.60%, Popcorn with 21.74%, and Tacos with 10.63%. Above 60 age group consumers don't prefer western snacks.

e. *Consumer preferred snack brand***Table 5** Consumer preferred snack brand

#	Consumer Preference	No of respondents
1	International Brand	156
2	National Brand	267
3	Regional Brand	284

Respondents of the study opined that regional snacks brands are the most preferred snacks brand. 284 respondents prefer regional brands. 267 respondents like national brands and only 156 of the respondents prefer international brands.

f. *Consumer preferred snack with meal***Table 6** Consumer preferred snack brand

#	Consumer Preference	No of respondents
1	Prefer to have western snacks with meal	108
2	Prefer to have Ethnic snacks with meal	350

Consumers in Tamilnadu have the habit of consuming snacks with meal. They prefer the ethnic snacks as the best choice to have with the meal. 350 respondents agree that they like to eat Ethnic snacks with meal. Only 108 respondents prefer western snacks with meal.

2. Consumer opinion on Western Snacks and Ethnic Snacks

The respondents of the study gave rating in 5-point scale and compared the Western snacks and ethnic snacks on the different factors and the average rating is presented in the table below.

Table 7 Consumer opinion on Western snacks and Ethnic snacks

S No.	Factors	Western snacks	Ethnic snacks
1	Taste	3.98	4.21
2	Freshly prepared	3.60	4.15
3	Variety	3.95	4.25
4	Flavours	3.80	3.95
5	Health Benefits	3.74	3.58
6	Shelf Life	4.12	3.84
7	Family Member Preferred	3.76	4.80
8	Discounts and offers	3.86	3.80
9	Friends Prescribed Snack	4.59	3.63
10	Relatives Preferred Snack	3.76	3.90
11	Gifting	3.89	4.55
12	Availability	3.85	3.84
13	No side effects	3.73	4.60
14	Low Calories	3.26	3.79
15	Locally Prepared	3.03	4.01
16	Convenient Packaging	4.53	3.81
17	Eco friendly Packaging	3.78	3.77
18	At Home	3.67	3.73
20	Outside Home in Public Places	3.86	3.74
21	Kids Preferred	4.55	3.70

Consumers have more positive opinion about Western snacks in the factors such as shelf life, sales promotions, availability, convenient and eco-friendly packaging. Friends prescribed snacks is western savoury snacks. Kids preferred snacks is also western snacks. Consumers prefer to consume western snacks in the public places.

Respondents rated Ethnic snacks high in the factors such as taste, freshness and locally prepared snacks, variety, flavour, no side effects, and low calories. Ethnic snacks is family prescribed, relatives preferred and more preferred one for gifting compared to western snacks, Consumers also mentioned that Ethnic snacks is the preferred snacks consumed at home.

3. Factors considered and Level of Importance given by the consumers in Snacks product choice and brand choice

Table 8 level of importance given by the consumer in snacks product choice and brand choice

S No.	Factor	Mean value
1.	Consistent Availability	4.35
2.	Variety	4.24
3.	No side effects	4.22
4.	Locally prepared	4.17
5.	Taste	4.14
6.	Friends prescribed Snack	4.13
7.	Convenient Packaging	4.12
8.	Health Benefits	4.11
9.	Low Calories	4.11
10.	Carry a container while purchasing of snack	4.10
11.	Discounts and Offers in Snacks	4.09
12.	Different flavours in Variety	4.05
13.	Eco friendly Packaging	4.05
14.	Family member Prescribed Western snack	4.04
15.	Reputation of Snacks Store	4.03

16.	Family member Prescribed Ethnic Snack	4.02
17.	More shelf life	3.99
18.	Attractive packaging	3.93

The crucial factors to take into account include constant availability, discounts and deals on snacks, and the store's reputation. Additionally, consumers favour snacks that are created locally. Consumers place a great value on flavour and variety. Important aspects affecting snack preferences are low calories, different flavours within a variety, and health advantages. The selection of snacks may also be influenced by family and friend recommendations, practical and environmentally responsible packaging, and appealing packaging. Consumers prioritise both flavour and health when selecting snacks, and convenience, sustainability, and social recommendations also have an impact. Packaging, whether it is convenient, eco-friendly, and attractive, also has an influence on consumer preferences.

4. Association between various factors considered in the study and the Dependent variables Product Choice and Brand Choice

The structured equation modelling is done in the study and the association between the variables influencing the Snacks product choice and brand choice behaviour is examined.

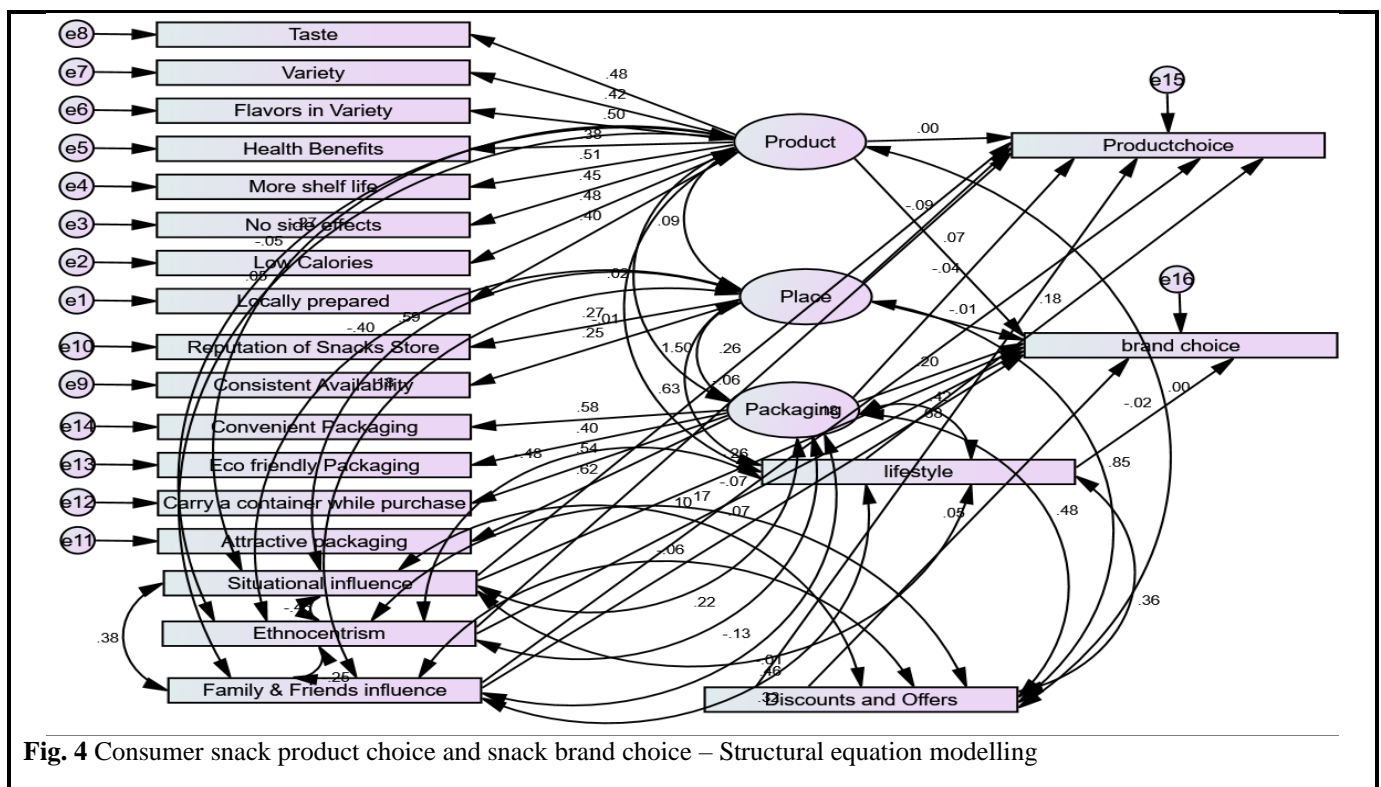


Fig. 4 Consumer snack product choice and snack brand choice – Structural equation modelling

The dependent variables of the SEM analysis are Snacks product choice and brand choice. The independent variables include the various elements of marketing mix, Ethnocentrism, Reference group influence, Situational influences, Lifestyle of the consumers.

Table 9 Model fit Examination Table

S No	Name of index	Meaning	Obtained Values	Adequate fit
1	Absolute fit measure CMIN/Df (normed/relative Chi-Square)	Determine the discrepancy between the fitted and sample covariance matrix by minimizing the sample size impact on the model	2.347	Less than 5
2	GFI (Goodness of fit)	The measure defines the replicating capability of the model with the observed covariance matrix	.925	Greater than 0.90
3	AGFI (adjusted goodness of fit)	Computation of GFI by adjusting against the degree of freedom	.885	Greater than 0.90

4	RMSEA (root mean square of approximation)	Define model efficiency to fit population covariance matrix with unknown but optimal chosen parameters	.057	Less than 0.10
5	Incremental fit measure NFI (normal fit index)	Relative model location of the model between the independence and saturated model	.819	Greater than 0.90
6	CFI (comparative fit index)	NFI revised form wherein Discrepancy between the hypothesized model and data is computed by considering the sample size	.884	Greater than 0.90
7	TLI (Tucker Lewis index)	Modified NFI model enabling model examination with smaller sample size	.839	Greater than 0.90
8	IFI (Incremental fit index)	Adjusted NFI model for sample size and degree of freedom	.887	Greater than 0.90
9	PGFI (parsimony goodness of fit index)	Modified GFI model wherein loss of a degree of freedom is considered	0.57	Greater than 0.50
10	PCFI (parsimony comparative fit index)	Modified CFI model wherein loss of a degree of freedom is considered	.608	Greater than 0.50
11	PNFI (parsimony normed fit index)	Modified NFI model wherein loss of a degree of freedom is considered	.593	Greater than 0.50

The Model fit Examination Table explains the adequacy of fit of the proposed model. The Indices computed are mostly fulfilling the adequacy requirements. So the proposed model is fit as SEM analysis output.

Table 10Snack product choice and brand choice- factor relationship RegressionWeights

#	Factor Relationship		Estimate	S.E.	C.R.	P
	Low Calories	<---	Product	1.291	.231	5.582 ***
	No side effects	<---	Product	1.129	.208	5.418 ***
	More shelf life	<---	Product	1.500	.260	5.767 ***
	Health Benefits	<---	Product	1.014	.204	4.960 ***
	Different flavours in Variety	<---	Product	1.423	.250	5.702 ***
	Variety	<---	Product	1.201	.229	5.245 ***
	Taste	<---	Product	1.376	.245	5.626 ***
	Reputation of Snacks Store	<---	Place	1.167	.224	5.219 ***
	Carry a container while purchase	<---	Packaging	.857	.107	8.024 ***
	Eco-friendly Packaging	<---	Packaging	.590	.093	6.353 ***
	Convenient Packaging	<---	Packaging	.883	.104	8.492 ***
	Product choice	<---	Discounts and Offers	.983	.061	16.209 ***
	Brand choice	<---	Discounts and Offers	.053	.066	.809 .418
	Brand choice	<---	Product	.170	.155	1.101 .271
	Product choice	<---	Product	.011	.141	.075 .014
	Product choice	<---	Place	-.588	.437	-1.347 .178
	Brand choice	<---	Place	-.055	.380	-.146 .884
	Product choice	<---	Packaging	-.089	.221	-.401 .688
	Brand choice	<---	Packaging	.330	.192	1.720 .085
	Product choice	<---	Situational influence	.242	.045	5.438 ***
	Brand choice	<---	Situational influence	-.168	.047	-3.558 ***
	Product choice	<---	Family Friends influence	.180	.035	5.119 ***
	Brand choice	<---	Family Friends influence	.050	.038	1.314 .189
	Product choice	<---	lifestyle	.192	.049	3.888 ***
	Brand choice	<---	lifestyle	-.016	.052	-.309 .757
	Product choice	<---	Ethnocentrism	-.072	.044	-1.646 .100
	Brand choice	<---	Ethnocentrism	-.057	.047	-1.198 .231

The regression weights table explains the links which are having significant relationship. The unobserved variable product has significant association with the product related items. Similarly packaging items explains the corresponding unobserved variable.

The product choice is influenced by product related factors, promotional activities, situations, reference group and the lifestyle of consumers. Situations also influence the Consumer Snacks Brand choice.

The standardised regression weights table explains the strength of the impact on the dependent variables - product choice and brand choice. Regarding the product choice, consumers choose ethnic snacks or western snacks based on product related aspects such as freshness, hygienic, healthy, variety and taste. Consumers Product choice is also influenced by family and friends. Family prescribe ethnic snacks and friends suggest the consumers to opt for western snacks. Situations highly influence the product as well as the brand choice. At home consumers prefer to have Ethnic snacks and when they go out, in the public places like movie theatres, picnic spots, while in transit prefer Western Snacks. Consumers who lead a modern and trendy lifestyle consume western snacks.

Conclusion

The consumer snacks product choice and snacks product choice is examined with this empirical study. The proposed frame work is statistically analysed with the Structural Equation Modelling. The hypotheses formulated are tested and results are presented. The consumers prefer mostly Ethnic Snacks. The demographic variables such as age, family size has a significant impact on Snacks buying behaviour. The product related factors (packaging, taste, variety and etc.), the situational variables, reference group and lifestyle of the individual are highly influencing the Consumer Product and mildly influencing the Brand Choice regarding snacks consumption.

References

- [1]Mihiranie S, Jayasinghe JK, Jayasinghe CVL, Wanasundara JPD. Indigenous and traditional foods of Sri Lanka. *Journal of Ethnic Foods* 2020;7. <https://doi.org/10.1186/s42779-020-00075-z>.
- [2]Chironi S, Bacarella S, Altamore L, Columba P, Ingrassia M. Consumption of spices and ethnic contamination in the daily diet of Italians - consumers' preferences and modification of eating habits. *Journal of Ethnic Foods* 2021;8. <https://doi.org/10.1186/s42779-021-00082-8>.
- [3]Halawa A. Analysis of the health effects of the transition of traditional Chinese food on the emergence of nontraditional eating behaviors. *Journal of Ethnic Foods* 2021;8. <https://doi.org/10.1186/s42779-021-00087-3>.
- [4]Shukla A. Ethnic food culture of Chhattisgarh state of India. *Journal of Ethnic Foods* 2021;8. <https://doi.org/10.1186/s42779-021-00103-6>.
- [5]Meneguel CR de A, Hernández-Rojas RD, Mateos MR. The synergy between food and agri-food suppliers, and the restaurant sector in the World Heritage City of Córdoba (Spain). *Journal of Ethnic Foods* 2022;9. <https://doi.org/10.1186/s42779-022-00126-7>.
- [6]Antani V, Mahapatra S. Evolution of Indian cuisine: a socio-historical review. *Journal of Ethnic Foods* 2022;9. <https://doi.org/10.1186/s42779-022-00129-4>.
- [7]Parthasarathi SK, Hebbani AV, Dharmavaram Desai PP. Vegetarian ethnic foods of South India: review on the influence of traditional knowledge. *Journal of Ethnic Foods* 2022;9. <https://doi.org/10.1186/s42779-022-00156-1>.
- [8]Ukom A, Albert M, Ojmelukwe P, Offia-Olua B, Nwanagba L. Impact of cooking methods on the chemical and antioxidant composition of some indigenous vegetables used in different food dishes in Southeast Nigeria. *Journal of Ethnic Foods* 2023;10. <https://doi.org/10.1186/s42779-023-00170-x>.
- [9]Şahin E, Yalın Kaya S. Preference for Turkish ethnic foods in the USA. *Journal of Ethnic Foods* 2023;10. <https://doi.org/10.1186/s42779-023-00168-5>.
- [10]Byrne DV. Current Trends in Multidisciplinary Approaches to Understanding Consumer Preference and Acceptance of Food Products. *Foods* 2020;9:1380. <https://doi.org/10.3390/foods9101380>.
- [11]Vijayasathy LR, Jones JM. Print and Internet catalog shopping: assessing attitudes and intentions. *Internet Research* 2000;10:191–202. <https://doi.org/10.1108/10662240010331948>.
- [12]Scrinis G, Monteiro CA. Ultra-processed foods and the limits of product reformulation. *Public Health Nutrition* 2017;21:247–52. <https://doi.org/10.1017/s1368980017001392>.
- [13]Baron KG, Reid KJ, Kern AS, Zee PC. Role of Sleep Timing in Caloric Intake and BMI. *Obesity* 2011;19:1374–81. <https://doi.org/10.1038/oby.2011.100>.
- [14]Chen, C. H., Tseng, C. Y. The impact of perceived quality, brand reputation, and product design on consumer preference: A study of digital camera preference. *Journal of Business Research* 2011. 64(8), 794-800.
- [15]Kim, H. Y. Factors influencing consumer preference for organic food products: A study in South Korea. *Sustainability* 2017. 2017;9(7), 1180.
- [16]Shankar, V, Viswanathan, M. Western" snacks in the Indian marketplace: Cultural barriers to adoption. *Journal of International Consumer Marketing* 2016;28(2), 86-101.
- [17]Lee, Y, Kwon, Y. Understanding consumer preference for foreign snack foods: A case of Korean consumers. *Journal of Ethnic Foods*,2018 2018;5(1), 1-7.
- [18]Dubois, P, Duquesne, P. Foreign snacks versus local snacks: A case of French consumers. *Journal of International Food & Agribusiness Marketing* 2019;31(1), 1-14.
- [19]Han, S, Ryu, K. Effects of consumption values on the purchase intention of Western snacks in Korea. *Journal of Foodservice Business Research* 2016;19(4), 384-399.

- [20]Siqueira, D, de Araujo, Ferreira, G, Oliveira, M. The influence of social factors on the consumption of foreign snacks: An exploratory study with Brazilian consumers. *International Journal of Gastronomy and Food Science* 2019;17, 100155.
- [21]Hu, Y.-C, Huang, Y.-F, Yeh, S.-H. Consumer preferences and willingness to pay for ethnic snacks in Taiwan. *Journal of Foodservice Business Research* 2014;17(4), 375-388. <https://doi.org/10.1080/15378020.2014.926756>.
- [22]Malik VS, Schulze MB, Hu FB. Intake of sugar-sweetened beverages and weight gain: a systematic review. *The American Journal of Clinical Nutrition* 2006;84:274–88. <https://doi.org/10.1093/ajcn/84.2.274>.
- [23]Slavin J. Fiber and Prebiotics: Mechanisms and Health Benefits. *Nutrients* 2013;5:1417–35. <https://doi.org/10.3390/nu5041417>.
- [24]Ros E, Tapsell LC, Sabaté J. Nuts and Berries for Heart Health. *Current Atherosclerosis Reports* 2010;12:397–406. <https://doi.org/10.1007/s11883-010-0132-5>.
- [25]India Snacks Market Size, Share, Growth & Forecast 2022-2027. *Wwwimarcgroupcom* n.d. <https://www.imarcgroup.com/india-snacks-market>.
- [26]Snack Food - India | Statista Market Forecast. Statista n.d. <https://www.statista.com/outlook/cmo/food/confectionery-snacks/snack-food/india>.
- [27]Technology FM. Overview of Snacks Market in India - FMT Magazine. *Food Marketing Technology* 2022. <https://fmtmagazine.in/overview-of-snacks-market-in-india/>.
- [28]Evers, C., de Ridder, D. T., &Adriaanse, M. A. The influence of taste and health cues on food intake in individuals with different eating habits. *Appetite*, 2010;54(3), 476-483. doi: 10.1016/j.appet.2010.01.014
- [29]Han, J. Y., Chung, S. Y., &Yoo, J. H.The influence of product attributes on the consumption of ethnic snacks in South Korea. *Journal of Ethnic Foods*, 2017;4(2), 119-125. doi: 10.1016/j.jef.2017.02.001
- [30]Kumar, A., & Suresh, S. Impact of modern retail outlets on the supply chain of consumer goods in India. *International Journal of Logistics Systems and Management*, 2018; 30(3), 301-319.
- [31]Mukherjee, D., & Sahay, B. S. Modern trade and its impact on small retailers in India. *International Journal of Retail & Distribution Management*, 2015;43(6), 580-597.
- [32]Saha, A., &Thejaswini, R.Consumer perception of modern retail formats: a study in Bangalore. *International Journal of Retail & Distribution Management*, 2018;46(1), 85-98.
- [33]Hwang, J., Yoon, J. H., & Lee, J. Consumption patterns and attitudes toward potato chips in Korean adults. *Korean Journal of Food and Cookery Science*, 2015;31(3), 253-262.
- [34]Perez-Cueto, F. J. A., Verbeke, W., Vanhonacker, F., Guerrero, L., Hersleth, M., & Scala, C. D. Nutritional quality of potato chips compared to other snacks: a systematic literature review and meta-analysis. *Journal of Food Science and Technology*, 2018;55(2), 361-369.
- [35]Lee, J. E., Kim, K. S., & Lee, S. H. Consumption status of processed foods and awareness of sodium intake among Korean adolescents. *Nutrition Research and Practice*, 2019;13(2), 123-130.
- [36]Kumar, D., Singh, A., & Singh, R. Ethnic snacks and their role in food and nutrition security in India. *Journal of Ethnic Foods*,2019; 6(1), 9.
- [37]Cho, S. H., & Lee, M. (2019). The influence of acculturation on consumer preferences for ethnic snacks in the US. *Journal of Ethnic Foods*, 6(1), 7.
- [38]Nguyen, t., Nguyen, h., & Pham, t. Factors affecting consumers' intention to choose a traditional market to buy fresh food in HCMC, Vietnam. *Journal of foodservice business research*, 2020;23(4), 394-414
- [39]Ramli, A. F., Rajab, A. Z., & Ismail, M. H. Factors affecting consumer preferences in choosing snacks among university students in Malaysia. *International Journal of Business and Society*,2021; 22(2), 493-506.
- [40]Shen, Y., Li, X., & Wei, F. The impact of packaging design on consumer behavior: a study on snack food packaging. *Journal of Packaging Technology and Research*, 2020;4(2), 139-150.
- [41]Tan, W. L., & Chua, B. L. Understanding consumer preferences of snack food packaging design. *Journal of Packaging Technology and Research*, 2020;4(1), 1-9.
- [42]Wang, C., Xu, X., Li, W., & Li, C. Consumer preference and willingness-to-pay for healthy snack foods in China: A survey study. *Journal of Cleaner Production*,2021; 315, 128241.
- [43]Gupta, R., Sangma, T., and Tiwari, P. Healthy and Unhealthy Snacking: A Review. *International Journal of Food Science*, 2020; 1-9.
- [44]Priebe, M. G., McMonagle, J. R., & Priebe, M. E. Changes in snacking among US adults. *Journal of Nutrition Education and Behavior*,2015; 47(4), 324-328
- [45]Vemireddy, V., & Gauri, S. S. Understanding the market potential of ethnic snacks in India. *Journal of Food Products Marketing*, 2021;27(2), 146-165