



## ORIGINAL ARTICLE

# Consumers' Perception Towards Buying Processed Cashew Nuts in India: An Investigation into Factors Determining Purchase Intension using Structural Equation Modelling

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### KEY WORDS

Consumer perception;  
Eating attitude;  
Eating motivation;  
Processed cashew nuts;  
Purchase intention;  
SEM

### ABSTRACT

The demand for processed cashews is on the rise in today's market. Businesses and policymakers must understand the factors that influence consumer choices when purchasing processed cashew nuts. This research paper focuses on understanding these factors in Odisha, India. A confirmatory factor analysis (CFA) was conducted with a sample size of 458 individuals using non-probability convenience sampling. This established the factor structures, followed by structural equation modelling (SEM) to assess the model's accuracy and test hypotheses. The analysis results revealed that three motivational factors (competence, independence, and affinity) and three perceived value factors (wellbeing, emotive response, and expediency) had a direct and positive influence on consumers' intentions to purchase processed cashew nuts. Additionally, eating attitude mediated the relationship between all motivational factors and all perceived value factors in purchasing processed cashew nuts. However, multiple regression analysis showed no correlation between socioeconomic variables and consumers' intentions to buy processed cashew nuts. The research findings provide insights into promoting processed cashew nuts within the food industry and supporting consumers in making healthier food choices, particularly in an Indian context.

### Introduction

Cashew nuts are a popular snack food around the world, like other nuts, providing vitamins, minerals, healthy fats, and protein (Chatrabnous *et al.*, 2018; Sharifkhah *et al.*, 2020; Sarikhani *et al.*, 2021; Chen *et al.*, 2023; Zhang *et al.*, 2023; Muhammad & Muhammad, 2021). Processed cashew nuts are also popular, but consumers have varying intentions when buying them (Garg *et al.*, 2019). This study aims to understand the factors that influence consumers' intentions to purchase processed cashew nuts.

Several factors can influence consumers' intentions, including household income, household size, region, and the perception of quality (Capps & Dharmasena, 2021). Freshness, taste, and texture impact how consumers perceive the quality of processed cashew nuts (Wang *et al.*, 2022). Customers also pay attention to manufacturing dates, food safety labels, and taste when making purchasing decisions (Wang *et al.*, 2022). A study conducted in Tanzania by Alphonse, Waized, and Larsen (2020)

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revealed that freshness, nutrition content, and naturalness are the three attributes valued by consumers when selecting packaged or processed foods. Slavica and Mirjana's (2023) study explored factors influencing consumer acceptability and food preferences in general. They found that most consumers tend to make informed choices when choosing their food, often opting for products enriched with vitamins, minerals, and dietary fibers. Additionally, they are open to trying foods that may have lower sensory appeal but offer health benefits. All the survey participants showed an understanding of nutrition and health risks, and their dietary preferences are influenced by their health needs, with some exceptions.

In a study conducted by Mahajan and Chavan (2019) in Nipani, India, price, quality, and taste were found to influence consumer choices when purchasing processed cashew nuts. However, the high prices of processed cashew nuts often lead consumers to opt for alternatives, such as cheaper nuts or other snack items. Given the wide availability of tree nuts in markets across India, consumers have flexibility in their choices (Bakhtavoryan, Capps, & Dharmasena, 2022). Therefore, producers and marketers must understand consumer preferences and tailor their marketing strategies accordingly to attract buyers of processed cashew nuts.

### ***Rational of the study***

In recent years, there has been a rise in lifestyle-related diseases, prompting the public to modify their eating habits. The objective is to improve everyday dietary practices and prioritize nutritional value when choosing snacks (Amerikanou, 2023). Studies indicate that people have an average of six eating occasions per day (Ahola *et al.*, 2019), suggesting an irregular eating pattern. Snacking is often associated with "junk" food and empty calories (Sadler *et al.*, 2019) and is frequently discussed about loss of appetite control, obesity, and excessive consumption. Therefore, research on foods that can help

regulate appetite is essential. Opting for healthy snacking choices and including processed fruits and nuts in our regular food intake is recommended (Sadler *et al.*, 2019).

Understanding why consumers make certain food choices is essential for the organized food industry (Calado *et al.*, 2018). Factors such as health and environmental concerns, knowledge and awareness, eco-labels, price, and trust all play a role in influencing people's food preferences and buying habits (Dangi *et al.*, 2020). Individuals consume a variety of foods for reasons that may not always align consistently (Nystrand & Olsen, 2020). People's perceptions of food are closely linked to their desire to maintain health (Hidayat *et al.*, 2021), an important aspect of both social and self-regulation. Motivation helps individuals persistently engage in behaviors that reflect their intentions (Novita & Husna, 2020).

Several research studies have examined the nutritional value of cashew nuts, with most studies in India focusing on production and processing. However, limited attention has been given to consumer intentions and factors influencing the purchase of processed cashew nuts. As a leading producer, processor, exporter, and consumer of cashews worldwide, it is crucial to understand these factors in India (Ghosal, 2023; Agrawal, 2021). In fact, India consumes 40% of the global production (Ghosal, 2023). A dedicated study to explore these factors in India is essential to gain an understanding of processed cashew nut trends and consumer preferences.

### ***Research theory***

The theory of planned action suggests that our attitude towards behaviors influences our approval or disapproval of them (Ajzen, 2020). This perspective suggests that people's attitude toward food is based on their implicit evaluation, which includes preferences, beliefs, and emotions related to food (Chen & Antonelli, 2020). The intention is shaped by three interconnected factors: attitude towards the behavior

itself, subjective norms, and perceived behavioral control (Prakash *et al.*, 2023). Research by Ahmed *et al.* (2021) reveals that individual attitudes, beliefs, and environmental factors play a role in dietary choices. Brinol *et al.* (2019) describe attitude strength as the level of thoughtfulness (negative or positive) an individual invests before forming an opinion on something. Our attitudes are influenced by the information we possess and the experiences we go through. When rating the outcomes of behaviours, people's attitudes can sometimes change, expressing either negative or positive views (Albarracín & Shavitt, 2018).

Motivation is the driving force behind behavior (Sitopu *et al.*, 2021). Self-determination theory (SDT), one of the most popular theories on motivation, suggests that our behavior is motivated by a desire to fulfil our fundamental and innate needs, thereby promoting personal growth, development, and well-being (Deci & Ryan, 2002). SDT argues that people often engage in behaviours for their own benefit, enjoyment, or personal interest (Deci & Ryan, 2002). Smit *et al.* (2018) also acknowledge the significance of SDT in understanding behavioural changes. Moreover, SDT not only helps us comprehend how individuals behave in a variety of contexts, including education, work, leisure activities, and parenting, but it also guides interventions and applications aimed at improving people's lives (McCallum *et al.*, 2019; Villalobos-Zúñiga & Cherubini, 2020).

SDT recognizes three needs: competence, relatedness (affinity), and autonomy (independence) (Verstuyf, 2012). Competence refers to the need to feel capable and accomplished in achieving desired outcomes. This need has been emphasized in theories of motivation, even though it may not explicitly be identified as an intrinsic requirement. Relatedness pertains to the importance of feeling connected to and valued by individuals, as well as the desire to fit in with peers, family, and the community. Finally, autonomy refers to the aspiration of perceiving

oneself as the initiator of one's actions while engaging in an activity.

The meaning of perceived value can vary depending on the context. It is often described from the consumer perspective, referring to how consumers assess the usefulness of goods and services based on the exchange between what they receive and give in return (Jiang *et al.*, 2016; Frances & Piqueras Tomas, 2019; DemiR *et al.*, 2020). Although what consumers receive or give may differ, perceived value entails a trade-off between benefits and sacrifices. Itani *et al.* (2019) argue that value represents a financial compromise made by the firm during the consumption process of a product or service, while Dastane *et al.* (2023) define value as a balance between consumer perceptions of the positive and negative outcomes associated with using a product or service. Some scholars have explored perceived value as a uni-dimensional concept primarily focused on factors such as cost, price, or financial considerations (Cronin *et al.*, 2000; Howat & Assaker, 2013; Jiang *et al.*, 2017). However, other researchers argue that perceived value is a multi-dimensional concept that encompasses convenience, emotional satisfaction, and social status, along with price and quality considerations (El-Adly & Eid, 2016; Gallarza *et al.*, 2016; Yu *et al.*, 2017; El-Adly, 2019). They emphasize the importance of considering the customer experience and overall satisfaction when evaluating the value of a product or service.

According to Tran and Le (2020), consumer perceived value strongly influences their behavioral intentions. It is important to note that health and well-being are important factors when examining consumer attitudes towards functional foods (Nystrand & Olsen, 2020). When products are perceived as healthy and have information about their nutritional value, consumers' perceptions of them improve, leading to an increased desire to purchase them (Franco Arellano *et al.*, 2020). Additionally, the emotional (emotive) value associated with certain foods, such as feelings

of happiness or the release of anger and frustration upon consumption, also influences consumers' food choices. Watanabe *et al.* (2020) further suggests that perceived emotional value impacts purchase intention. Finally, expediency values, such as ease of purchase (Janssen, 2018), accessibility (Dhillon *et al.*, 2019), and ease of eating and storage (Brennan *et al.*, 2013), largely stem from consumers' sense of convenience in using the product.

### **Formulation of Null Hypothesis based on the above research theory**

Based on the above discussion and research theory, the following null hypotheses were developed. These hypotheses will serve as the basis for conducting analysis and evaluating the results obtained.

H<sub>0</sub>1.: Consumer attitudes toward consuming cashews negatively affect purchase intentions.

H<sub>0</sub>2a: Competence motivation for consuming cashews negatively affects eating attitudes.

H<sub>0</sub>2b: Independence motivation for consuming cashews negatively affects eating attitudes.

H<sub>0</sub>2 c: Affinity motivation for consuming cashews negatively affects eating attitudes.

H<sub>0</sub>3a: Competence motivation for consuming cashews negatively and indirectly affects purchase intentions.

H<sub>0</sub>3b: Independence motivation for consuming cashews negatively and indirectly affects purchase intentions.

H<sub>0</sub>3c: Affinity motivation for consuming cashews negatively and indirectly affects purchase intention.

H<sub>0</sub>4a: The perceived well-being value of consuming cashews negatively and indirectly affects purchase intentions.

H<sub>0</sub>4b: The perceived emotive value of consuming cashews negatively and indirectly affects purchase intention.

H<sub>0</sub>4c: The perceived expediency value of consuming cashew negatively and indirectly affects purchase intention.

H<sub>0</sub>5a: The perceived well-being value of consuming cashew negatively affects eating attitudes.

H<sub>0</sub>5b: The perceived emotive value of consuming cashews negatively affects eating attitudes.

H<sub>0</sub>5c: The perceived expediency value of consuming cashews negatively affects eating attitudes.

### **Materials and Methods**

The study was conducted using a quantitative research approach, involving the collection of data from a group of consumers through a structured questionnaire. The questionnaire covered aspects such as the participants' demographics, their opinions on processed cashew nuts, and their intentions to purchase the product. A convenience sampling technique was used to select the participants. The collected data was analysed using descriptive and inferential statistics, as well as structural equation modelling (SEM) in combination with confirmatory factor analysis (CFA). The data for this study was collected during January and February 2023 in the state of Odisha, India. Convenience sampling was used to select participants from five districts: Gajapati, Rayagada, Koraput, Nabarangpur, and Ganjam. Convenience sampling is a probability technique that enables researchers to select individuals or units from populations, even though it has its limitations (Etikan *et al.*, 2016). This method is useful in situations where randomization is not feasible and resources are scarce, making it a practical approach for studying large populations (Etikan *et al.*, 2016).

A total of 600 survey questionnaires were distributed to potential consumers, of which 470 (78%) were returned. After reviewing the responses, 458 error-free questionnaires were selected as the sample size for the study. Kline (2011) recommends a minimum of ten cases for each parameter or item to ensure the accuracy of a statistical estimate. With 34 items in the current research, a minimum of 340 responses were required. Therefore, a sample size of

458 was deemed sufficient. Confirmatory factor analysis (CFA) was conducted on this sample to validate the existing factor structures. Additionally, structural equation modelling (SEM) was used to test the hypotheses outlined in the study on the same sample. Scales based on a scale developed by Sun & Liang (2020) (Table 1) were used in the investigation. It is important to note, however, that our study focused on processed cashew nuts, while the mentioned scale was originally designed to gather data about types of dried fruits. A principal axis factoring (PAF) analysis was conducted to determine the dimensionality of motivation, perceived value, eating attitude, and purchase intention (Table 1). Participants responded to a survey created using the Google Forms platform. The survey link was shared with respondents via email and WhatsApp between January and February 2023. Participation in the survey was completely optional, private, and confidential.

## Results

### *Results of the regression analysis and the relationship between socioeconomic factors and purchase intention*

Upon examining sociodemographic factors, we found that the age groups of the participants were divided into four categories: those under 25 years old (31.09%), those between 25 and 35 years old (29%), those between 36 and 45 years old (15.07%), and those who were 46 years old or older (23.04%). The majority of the participants (64.2%)

were male, while 59.8% were unmarried, as shown in Table 2.

Tables 3 and 4 show that when examining the relationship between socioeconomic variables and purchase intention through multiple regression analysis, both the R-square and adjusted R-square values are below 0.09. According to Ozili (2023), a social science empirical model with an R-square value between 0 and 0.09 (or between 0% and 9%) is considered too low. Therefore, we can conclude that the model is not suitable for further research and interpretation. Additionally, the coefficients from the multiple regression output are not significant enough for further analysis.

### *Results of Confirmatory Factor Analysis (CFA)*

The sample size used in CFA is influenced by many factors, including the number of relationships between types of estimators, the reliability of indicators, data scaling, the amount of missing data, and the complexity and patterns within the model (Brown, 2015). Researchers use power analysis to determine a sample size (Byrne, 2012; Wang & Wang, 2012; Brown, 2015; Kline, 2016). Additionally, when conducting Monte Carlo simulations to obtain unbiased estimates or standard errors and reduce the likelihood of non-convergence issues, it is recommended to have minimum sample sizes. However, Tabachnick and Fidell (2013) observe that having a large enough sample size or adequate sample power is crucial when planning research endeavors.

**Table 1.** Principal Axis Factoring (PAF), Loadings, Mean & Standard Deviation of Scale (n-458).

Factor/Item	Mean	Std. deviation	Loading
<b>Individual motivation (Independence motivation)</b>			
<i>I buy cashews just for the purpose of eating them</i>	4.14	.887	.406
<i>I Eat to pass time</i>	3.61	1.063	.569
<i>I Eat to enjoy the chewiness</i>	3.63	1.039	.594
<b>Individual motivation (Competence motivation)</b>			
<i>It may be a substitute for staple foods</i>	3.56	1.043	.468
<i>It may be a substitute for candy or chocolate</i>	3.78	1.105	.621
<i>It could be used as a substitute for crispy foods</i>	3.68	1.026	.576
<i>It could be used in place of fruits</i>	3.66	1.128	.547
<i>It could be a good vegetarian option</i>	3.81	.979	.495
<i>It may help me stop eating unhealthy snacks</i>	3.83	.997	.451
<i>It may meet daily nutrition needs</i>	3.92	.946	.544
<b>Individual motivation (Affinity motivation)</b>			
<i>Sharing with family members</i>	3.86	.971	.447
<i>Manufacturers may customize nut products they want</i>	3.77	.955	.386
<i>As a gift that is unique to the area.</i>	3.69	.972	.456
<i>As a snack at a celebration or festival.</i>	3.83	.986	.491
<b>Perceived value (Wellbeing value)</b>			
<i>The cashew nut may be beneficial to one's health.</i>	4.02	.912	.581
<i>Cashew nuts are nutritious nuts.</i>	4.00	.955	.650
<i>Cashew nuts get digested easily</i>	3.82	.951	.437
<i>Cashew nuts contain vitamins</i>	4.01	.886	.559
<i>Cashew nuts contain protein</i>	3.97	.966	.587
<i>Cashew nuts contain prebiotics</i>	3.81	.938	.439
<i>Cashew nuts contain antioxidants</i>	3.82	.907	.483
<i>Cashew nuts reduce the risk of heart disease</i>	3.76	.934	.509
<b>Perceived value (Emotive value)</b>			
<i>I eat cashew nuts when I feel happy</i>	3.70	1.085	.544
<i>I eat cashew nuts when I feel frustrated</i>	3.33	1.195	.712
<i>I eat cashew nuts when I feel angry</i>	3.31	1.252	.693
<b>Perceived value (Expediency value)</b>			
<i>Cashew nuts are easily eaten</i>	3.87	.925	.546
<i>Cashew nuts are easy to store</i>	3.87	.936	.559
<i>Cashew nut are easy to carry</i>	3.95	.930	.602
<b>Eating attitude</b>			
<i>Eating cashew nut is interesting</i>	3.73	1.010	.592
<i>Eating cashew nuts is fashionable</i>	3.50	1.131	.609
<i>Eating cashew nuts is wise</i>	3.59	1.017	.527
<b>Purchase intention</b>			
<i>I'm thinking about buying cashew nuts.</i>	3.93	.969	.659
<i>I am willing to purchase cashew nuts</i>	3.83	.881	.714
<i>I will purchase cashew nuts</i>	3.88	.960	.634

CFA typically utilizes large sample sizes (Kline,

2016). However, models with trustworthy parameter

estimates and variables can still yield results with smaller samples (Tabachnick & Fidell, 2013). Generally, sample sizes exceeding 200 are considered appropriate for CFA (Bandalos, 2014; Singh, Junnarkar, & Kaur, 2016). In CFA analysis, a loading of 0.5 is typically used as a cut-off point. The R software package was used to assess the validity of factor structures using maximum likelihood estimation of CFA. Model fit was determined using recommended indicators by Hair *et al.* (1998) and Browne & Cudeck (1993): SRMR  $\leq$  0.10, RMSEA  $\leq$  0.08, CFI  $\geq$  0.90, TLI  $\geq$  0.95, NFI  $\geq$  0.90. The three-factor solution produced a good fit for the motivation variable ( $\chi^2 = 327.23$ ,  $df = 73$ ,  $p < .005$ , RMSEA = 0.071, SRMR = 0.071, CFI = 0.92, NFI = 0.93, TLI = 0.97). The composite reliability findings and factor loadings are displayed in Table 5. In this research study, construct validity was determined by examining both discriminant validity and convergent validity. Convergent validity of each factor was evaluated by analysing their standardized factor loadings (Shrestha, 2021). Discriminant validity refers to how one latent variable differs from other constructs in the model (Hair Jr. *et al.*, 2014). Discriminant validity was assessed by generating confidence intervals for inter-factor correlation estimations (Voorhees *et al.*, 2016).

Researchers have recently found that the heterotrait-monotrait ratio of correlations (HTMT) is an improved criterion for assessing discriminant validity compared to existing methods like the Fornell-Larcker criterion (Alam *et al.*, 2019). HTMT was therefore used to test the discriminant validity of the three-factor model in this study. All HTMT values were below 1.0, indicating that the variables have both convergent and discriminant validity. Specifically, the correlation between factors one and two was .641, between factors two and three it was .692, and between factors one and three it was .731. These results confirm that the variables have convergent validity, as the factor loadings are all above 0.5. Additionally, the HTMT values for all factor pairs are below 1.0, indicating that the variables have discriminant validity. Overall, the three-factor model demonstrated a suitable fit for assessing the perceived value variable ( $\chi^2 = 387.161$ ,  $df = 73$ ,  $p < .005$ , SRMR = .063, RMSEA = .073, CFI = .93, NFI = .95, TLI = .98). Table 5 presents the results of factor loadings and composite reliability. Each factor demonstrated convergent validity based on the criteria defined by Hair *et al.* (2019). The correlations between the factors were all below 1.0, indicating that the results satisfied the discriminant validity criteria of HTMT (Alam *et al.*, 2019).

**Table 2.** Analysis of socio demographics (n = 458).

Variables	Descriptions				
<b>Gender</b>	294		164		
	Male (64.2%)		Female (35.8%)		
<b>Age</b>	Below 25 = 146 (31.9%)	25 to 35 = 133 (29%)	36 to 45 = 72 (15.7%)	46 and above = 107 (23.4%)	
	274		184		
<b>Marital status</b>	Single (59.8%)		Married (40.2%)		
<b>Type of family</b>	302		156		
	Nuclear family (65.9%)		Joint family (34.1%)		
<b>Highest educational qualification</b>	36	91	207	124	
	High school (7.9%)	Intermediate (19.9%)	Graduation (45.2%)	Post-graduation (27.1%)	
<b>Occupation</b>	124	102	232		
	Salaried (27.1%)	Self-employed (22.3%)	Non-employed (50.7%)		
<b>Family annual income</b>	155	188	88	27	
	Less than 1 lac (33.8%)	1 lac to 5 lac (41.0%)	5 lac to 10 lac (19.2%)	10 lac & above (5.9%)	
<b>Frequency of Purchase</b>	44	99	163	152	
	Daily (9.6 %)	Weekly (21.6 %)	Monthly (35.6%)	Occasionally (33.2 %)	
<b>Preferred time of consumption in a day</b>	187	47	169	55	
	Morning (40.8%)	Afternoon (10.3%)	Evening (36.9%)	Night (12%)	
<b>Purpose of purchasing</b>	262	27	169		
	Consuming at home (57.2%)	Giftng (5.9%)	Both (36.9%)		
<b>Place of residence</b>	125	109	71	84	69
	Rayagada (27.3%)	Gajapati (23.8%)	Ganjam (15.5%)	Koraput (18.3%)	Nabarangpur (15.1%)



**Table 3.** Multiple regression analysis of socio-economic variables with purchase intention.

Coefficients <sup>a</sup>					
Model	Unstandardized coefficients		Standardized coefficient	t	Sig.
	B	Std. error	Beta		
(Constant)	109.700	8.813		12.448	.000
Age	1.595	1.250	.091	1.276	.203
Gender	-.226	2.016	-.005	-.112	.911
Current place of residence	.087	.664	.006	.131	.896
Marital status	-2.254	3.007	-.055	-.750	.454
Food preference	-.644	2.182	-.014	-.295	.768
Type of family	5.789	1.976	.136	2.929	.004**
Highest education qualification	.779	1.139	.034	.684	.494
Occupation	1.978	1.322	.084	1.497	.135
Family annual income	2.532	1.138	.110	2.224	.027*

a. Dependent variable: purchase intention

**Table 4.** Regression model summary.

Model summary				
Model	R	R square	Adjusted R square	Std. error of the estimate
1	.199 <sup>a</sup>	.040	.020	19.93418

a. Predictors: (Constant), Family Annual Income, Current place of Residence, Type of family, Food Preference, Gender, Marital Status, Highest Education Qualification, Occupation, Age

**Table 5.** CFAs of variables (n = 458).

Variables	Motivation				Perceived value			
	Independence	Competence	Affinity	Wellbeing	Emotive	Expediency	Attitude	Intention
1	0.798	0.628	0.798	0.718	0.798	0.796	0.686	0.896
2	0.645	0.669	0.736	0.721	0.893	0.845	0.790	0.850
3	0.798	0.788	0.698	0.751	0.852	0.747	0.689	0.892
4		0.658	0.796	0.673				
5		0.789		0.764				
6		0.692		0.792				
7		0.788		0.662				
8				0.599				
Comp Reliability	0.793	0.881	0.844	0.891	0.885	0.839	0.766	0.911
AVE	0.563	0.517	0.575	0.508	0.720	0.635	0.523	0.774

### **Results of Structural Equation Modelling (SEM)**

We examined the proposed hypotheses using the SEM feature in the R software package. We followed the methods described by Williams *et al.* (2009) to investigate the mediating effects of the three components. The variables of eating attitude and purchase intention displayed significant levels of variance in their outcomes ( $R^2 = .590$  and  $.470$ , respectively), and the overall model demonstrated a satisfactory fit ( $\chi^2 = 1339.37$ ,  $df = 492$ ,  $p < .005$ ,  $SRMR = .076$ ,  $RMSEA = .062$ ,  $CFI = .94$ ,  $TLI = .96$ ,  $NNFI = .90$ ,  $NFI = .92$ ). Figure 1 illustrates the path analysis of the mediation model. In social science research, the squared multiple correlation ( $R^2$ ) is commonly used to measure the cumulative effect size of explanatory variables on dependent variables and to predict specific phenomena. An  $R^2$  value between 0.10 and 0.50 (or between 10% and 50%) is considered acceptable when most or some of the explanatory variables are statistically significant. An  $R^2$  value between 0 and 0.09 (or between 0% and 9%) is considered low for an empirical model in social science research (Ozili, 2023). Ozili (2023) also highlights that an  $R^2$  value ranging from 0.50 to 0.99 is appropriate in a social science study, particularly when most of the explanatory factors are statistically significant. Based on the findings of this study, the structural correlations in the final model accounted for 41% of the variance in eating attitudes and around 53% of the variance in purchasing intentions.

Based on the results of hypothesis testing, we have determined that all of the null hypotheses in this study have been rejected. Consequently, we can conclude that the corresponding alternative hypotheses are supported and accepted

The alternative hypothesis, H1, was supported (Table 7). The structural model shows that eating attitude positively influenced purchase intention (Figure 1, Table 6), supporting H1. H3a, H3b, H3c, H4a, and H4c were also supported, indicating that motivation factors (competence, independence, and affinity) and perceived values (well-being, emotive

response, and expediency) all had a direct and positive impact on purchase intention for processed cashew nuts (Table 7). H4b was also supported, as purchase intention was significantly influenced by perceived emotive value. Furthermore, eating attitude was favourably influenced by motivations related to competence, independence, perceived well-being value, and perceived emotive value, supporting H2a, H2b, H5a, and H5b. Affinity motivation and perceived expediency value had a substantial influence on eating attitude, supporting H2c and H5c. These observations are all detailed in Table 7.

Perceived emotive value had the highest positive and direct effect on eating attitude (0.644), whereas competence motivation had the highest positive and direct effect on purchase intention (0.571) (Figure 1, Table 6). Competence motivation (0.551), independence motivation (0.495), affinity motivation (0.519), perceived wellbeing value (0.561), and perceived expediency value (0.611) also had a direct and positive effect on eating attitude. Independence motivation (0.452), Affinity motivation (0.538), perceived wellbeing value (0.521), perceived emotive value (0.504), and perceived expediency value (0.554) also had a direct and positive effect on purchase intention. These results indicate that perceived expediency value and competence motivation were significant contributors to purchase intention, and perceived emotive value was the most significant contributor to eating attitude. Figure 1 and Table 6 demonstrate that eating attitude mediates the effects of all three motivation constructs (independence, competence, and affinity) and all three perceived value constructs (well-being, emotive response, and expediency) on purchase intention toward processed cashew nuts.

### **Research findings**

The findings indicate that people's eating attitude has an impact on their intention to buy processed cashew nuts, supporting previous research (Di Renzo

et al., 2020; Kumar & Smith, 2018). These studies show that consumers who enjoy eating processed cashew nuts perceive themselves as wise, interesting, and fashionable, and are more likely to purchase the product. Moreover, the current study confirms research by Lee and Yang (2013) and Ahmad et al.

(2020) showing that eating attitude mediates the relationship between motivation and purchase intention. Additionally, we found that attitudes influence perceived value and purchase intention, supporting studies such as those by Salehzadeh and Pool (2017) and Lukito and Yustini (2019).

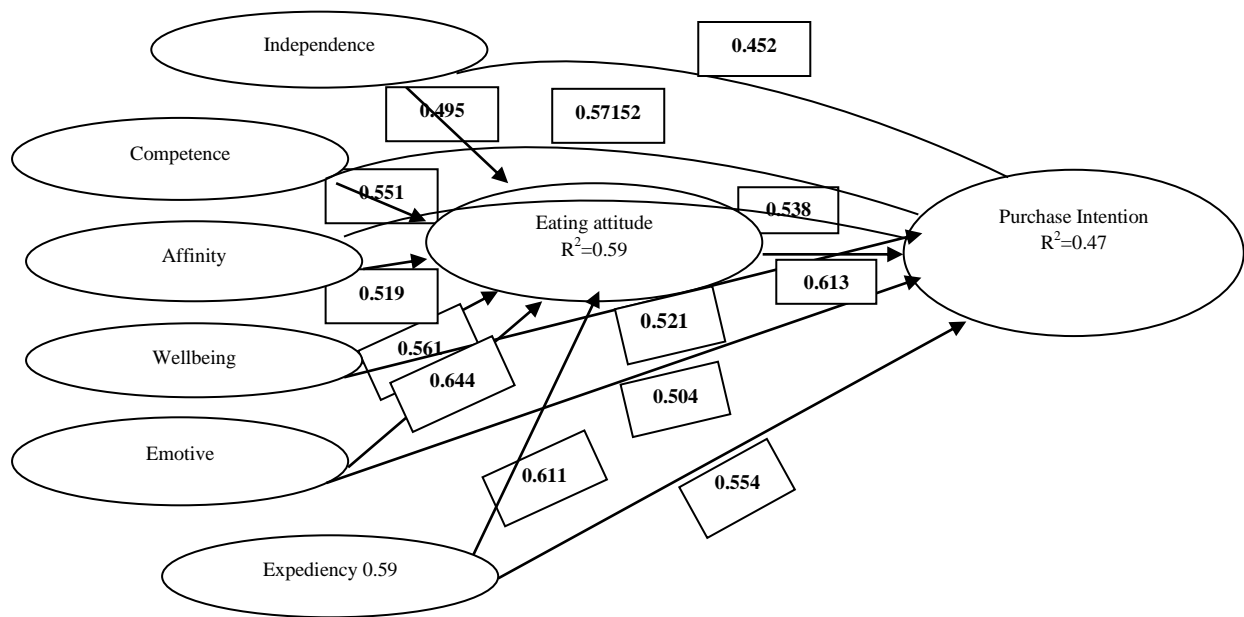


Fig. 1. Mediation model path analysis diagram for processed cashew nuts (n = 458).

Table 6. The effects of latent independent variables & Correlation coefficients (n = 458).

Sl. No	Variables	1	2	3	4	5	6	7	Intention			
									8	Direct effect	Indirect effect	Total effect
1	Independence	1							.051	0.199	.250*	
2	Competence	.625**	1						.092	0.197	.289*	
3	Affinity	.518**	.646**	1					.026	0.236*	.262*	
4	Wellbeing	.390**	.547**	.634**	1				.026	0.241*	.267*	
5	Emotive	.585**	.600**	.545**	.413**	1			.054	0.209	.263*	
6	Expediency	.364**	.448**	.475**	.631**	.373**	1		.156	0.146	.302**	
7	Attitude	.495**	.551**	.519**	.561**	.644**	.611**	1	.086	0.217	.303*	
8	Intention	.452**	.571**	.538**	.521**	.504**	.554**	.613**	1	-.030	0.27*	.240*

**Table 7.** Results of Hypothesis testing

Hypotheses		Results
<b>H<sub>0</sub>1.</b>	Consumer attitudes toward consuming cashews negatively affect purchase intentions.	Rejected
<b>H<sub>0</sub>2a:</b>	Competence motivation for consuming cashews negatively affects eating attitudes.	Rejected
<b>H<sub>0</sub>2b:</b>	Independence motivation for consuming cashews negatively affects eating attitudes.	Rejected
<b>H<sub>0</sub>2 c:</b>	Affinity motivation for consuming cashews negatively affects eating attitudes.	Rejected
<b>H<sub>0</sub>3a:</b>	Competence motivation for consuming cashew negatively and indirectly affects purchase intention.	Rejected
<b>H<sub>0</sub>3b:</b>	Independence motivation for consuming cashew negatively and indirectly affects purchase intention.	Rejected
<b>H<sub>0</sub>3c:</b>	Affinity motivation for consuming cashew negatively and indirectly affects purchase intention.	Rejected
<b>H<sub>0</sub>4a:</b>	The perceived well-being value of consuming cashews negatively and indirectly affects purchase intentions.	Rejected
<b>H<sub>0</sub>4b:</b>	The perceived emotive value of consuming cashews negatively and indirectly affects purchase intention.	Rejected
<b>H<sub>0</sub>4c:</b>	The perceived expediency value of consuming cashews negatively and indirectly affects purchase intention.	Rejected
<b>H<sub>0</sub>5a:</b>	The perceived well-being value of consuming cashews negatively affects eating attitudes.	Rejected
<b>H<sub>0</sub>5b:</b>	The perceived emotive value of consuming cashews negatively affects eating attitudes.	Rejected
<b>H<sub>0</sub>5c:</b>	The perceived expediency value of consuming cashews negatively affects eating attitudes.	Rejected

The study found that consumers' intention to buy processed cashew nuts is positively influenced by three motivations: competence, independence, and affinity. Additionally, all three perceived values—well-being, emotive response, and expediency—also have a positive impact on purchase intention. The study indicates that perceived expediency value and competence motivation play important roles in determining purchase intention. Specifically, perceived emotive value primarily affects eating attitude (see Figure 1 and Table 6). The study's findings confirmed the importance of perceived expediency value for purchase intention. The research also suggests that consumers view processed cashew nuts as an alternative to staple foods, candies, crispy snacks, and unhealthy snacks due to the importance of competence motivation toward purchase intention. When individuals consume cashew nuts, they tend to feel satisfied and happy due to the significance of perceived emotive value toward eating attitude. Additionally, the study's findings confirm that compared to other perceived value and motivation constructs, independence and affinity motivations have a relatively less significant impact on both eating attitudes and purchase intention, although they do have a direct influence on them.

## Discussion

The findings of the study suggest that strategies for increasing the intention to buy processed cashew nuts should focus on satisfying motivations and eating attitudes. Consuming processed cashew nuts is generally perceived as a behavior that reflects high levels of perceived value and eating attitudes. These sentiments have a significant impact on the marketing of processed cashew nuts. Consumers perceive processed cashew nuts as a convenient and portable food option. Therefore, marketing efforts should emphasize the simplicity of consuming and carrying processed cashew nuts. Additionally, marketing campaigns should highlight how processed cashew nuts can easily replace staple foods and unhealthy snacks, such as candies and crispy snacks. Furthermore, consumers appreciate processed cashew nuts as a vegetarian and nutritious snack option. Individuals who enjoy processed cashew nuts often experience satisfaction and happiness.

Consumers do not view processed cashew nuts as a product to casually test for taste, texture, and chewiness. This results from the minor influence of independence motivation on eating attitude. With their high cost compared to other nuts and snacks in India, consumers hesitate to try processed cashews (Babu, 2022). Reflecting the limited impact of affinity

motivation, Indian consumers prefer sharing or gifting more affordable, convenient treats over cashews (Jain & Wadhwa 2019). Additionally, due to the high price, consumers are disinclined to sample cashews to determine preferences, relating to the minor effect of independence motivation on purchase intention (Azam & Judge 2001). Considering the limited influence of affinity motivation on purchase intention, Indian consumers often choose cereal-based snacks over cashews for social gatherings and festivals (Deka & Sit, 2022). To fully capitalize on India's processed cashew market, relevant organizations must account for these factors when devising marketing and advertising strategies.

### Conclusions

Based on this study the perceived expediency value and competence motivation were the two most important factors influencing consumers' purchase intention. Indian consumers view processed cashew nuts as a convenient, portable, and healthy food option, which is reflected in the significant impact of perceived expediency value on purchase intention. Additionally, processed cashews are seen as a substitute for unhealthy snacks, which further supports the role of competence motivation in purchase intention. Considering that processed cashew nuts can also meet the nutritional requirements of vegetarians, their significance in terms of competence motivation is even greater. These findings suggest that organizations involved in marketing and selling processed cashew nuts in India should prioritize perceived expediency value and competence motivation when developing policies and strategies.

### Conflict of interest

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