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Research Article

**Turkish Consumers' Purchase Motivation towards Erzurum Stuffed-Kadayif with Protected Geographical Indication (PGI) at the Dessert Retailers**

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**Abstract:** It was planned to determine the main factors affecting Erzurum Stuffed-kadayif purchase motivation of Turkish consumers in the study. The main material of the research was obtained from 385 households residing in Erzurum, Türkiye. Exploratory Factor Analysis and Two-step Cluster Analysis were used to explore Turkish consumers' Erzurum Stuffed-kadayif purchase motivation at the dessert retailers. The results of the research highlighted that consumers consuming this product at the local restaurants were satisfied highly with the food images under cultural integration. On the other hand, those consuming this dessert at the local patisseries also attituded a big importance to the entrocenrism approach based on cultural integration. Similarly, consumers purchasing Erzurum Stuffed-kadayif as a ready-made local dessert from local manufacturer vendors tried to contribute considerably to sustainable food supply and consumption with an entrocenrism approach under cultural integration. It should be improved appropriate positioning and segmentation strategies according to the purchase motivation of each consumer segment, and then they should be implemented by policy makers.

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**1. Introduction**

In recent years, there has considerably maintained a change in consumers' food consumption preferences and purchase motivations under the negative effects of global climate change due to lower yield and quality attributes suffered in plant and livestock products, biodiversity losses, possible risk factors on food safety and security at food life cycle from the farms to the retailer shelves, negative consumer perceptions about emotional food quality attributes, as well as negative impacts on human health and the environment (Bernabeu et al., 2023; Bouranta et al., 2023; Mesias et al., 2023).

Under the impact of the Covid-19 pandemic and the Ukraine and Russia war along with the negative effects of climate change, the production of wheat being the main raw material of stuffed-kadayif has considerably decreased for the last few years in the world and Türkiye. As considered global wheat supply and demand trends, while global wheat production and stocks decreased from 764 and 284 million tons in 2019 to 769 and 271 million tons in 2022, wheat consumption increased from 741 million tons to 782 million tons (TEPGE, 2022). In response to the decreases in both global wheat production

and current stocks, a significant increase in global wheat consumption was also observed in view of the trend figures. Consequently, this situation has indicated the existence of a serious problem in meeting consumer demands of wheat supply worldwide and a large supply gap in the future if the necessary preventive and adaptation studies are not carried out to an adequate extent.

Wheat production in Türkiye was 19.00, 17.65, and 19.80 million tons in 2019, 2021, and 2022 respectively, whereas domestic wheat consumption was given as 20.00, 19.01, and 19.00 million tons (TEPGE, 2022). In particular, it abnormally caused product prices to increase with the effects of panic buying by narrowing the supplies of wheat and bakery products under the negative impacts of ongoing climate change and the Covid-19 pandemic hitting 2019 (Arafat et al., 2021). Indeed, while the average annual wheat price was  $\text{₺}1.5 \text{ kg}^{-1}$  in 2018, it increased to about  $\text{₺}5.5 \text{ kg}^{-1}$  in 2022 (PTB, 2022). The dramatic increases in wheat prices at commodity markets caused wheat flour prices to trade from  $\text{₺}1.76 \text{ kg}^{-1}$  in 2018 to increase by  $\text{₺}7.7 \text{ kg}^{-1}$  in 2022 (PTB, 2022a). Manufacturing cost increase resulting from excessive rises in the prices of Stuffed-kadayif ingredients such as sugar, walnuts, pistachios, and hazelnuts, along with the price of the flour being the main input of Erzurum Stuffed-kadayif, therefore, caused the price per kg to rise from  $\text{₺}15$  (\$2) in 2019 to  $\text{₺}140$  (\$7) in 2023.

On the other hand, besides the natural risk factors having a negative impact on agriculture and the agricultural food industry, when the macroeconomic data are taken into consideration for 2022-2023 years in Türkiye, the consumer price index (CPI) and food price increases (food inflation) were annually realized as 50.51 and 67.89% (TUIK, 2023). The annual increases in the producer price index (PPI) and food input prices were calculated as 62.45% and 88.38%, respectively (TUIK, 2023a). The pressures of these inflationary and natural risk factors have today caused the food prices to increase dramatically with the contraction in the economy by increasing the production costs, and then the formation of social welfare losses created by the contraction in demand resulting from the real decline in consumer incomes. This situation has indeed caused an excessive increase in the share of consumer incomes allocated to mandatory food needs in the expenditure budget, and thus their consumption motivations have also changed considerably depending on the marketing mix.

It was reported that consumers' psychographic factors on their food consumption motivation had a much greater impact than their socioeconomic ones such as gender, age, education, and profession on their attitudes and behaviors patterns (Graham and Amrahamse, 2017; Harguess et al., 2020). Consumers' individual factors, therefore, (attitude and value, knowledge and skill, emotion and cognitive level, taste and flavour, demographic factors), their sociocultural attributes (culture and belief, social norm and status), and the external factors (political and economic factors related to food marketing environments) must be assessed rationally how their food purchase motivations are impacted under current conditions (Chen and Antonelli, 2020; Harguess et al., 2020). Therefore, consumers trying to meet their food needs under the effects of climate change have rationally tried to shape their food choices and purchase motivations at retail levels by taking into account not only the hedonic and sensory food attributes but also the negative progressions in the Turkish economy in the last years.

It was reported in the prior researches that it was firstly attempted to determine consumers' purchase motivations by taking into account the hedonic food attributes, a part of the marketing mix focused on consumers' visual sense (price, brand, labeling, package weight, and size, geographical indications, purchase convenience, reaching to retailers, conformity and comfort at retail stores, health claims) (Edenbrandt and Nordström, 2023; Fakhreddine and Sanchez, 2023; Petrontino et al., 2023; Yeh and Hirsch, 2023; Zanchini et al., 2023; Zeng et al., 2023), and then the sensorial food attributes based on a variation of the nutritional composition at farming and manufacturing process (taste, aroma, flavor, colour, texture, appearance, sound, content or ingredient, juiciness, sweetness) (Bejaei and Xu, 2023; Fakhreddine and Sanchez, 2023; Giannoutsos et al., 2023; Kleih et al. 2023; Lavui et al., 2023) impacting on their purchase models at retail levels.

Especially, when making consumers' food purchase decisions based on their hedonic experience perceptions, it was emphasized that they make purchasing decisions to a large extent by taking into account the marketing mix such as the region of origin and prices (Topcu and Çavdar, 2022; Bernabeu et al., 2023; Chaffee and Ross, 2023), the food brands and their communication tolls (Bernabeu et al., 2023), food packaging and label knowledge (Chaffee and Ross, 2023) and the retailers and their positioning strategies (Bytyqi et al., 2023; Curutchet et al., 2023; Seo and Kim, 2023).

In these studies based on consumers' food purchasing motivations, it was pointed out that the extrinsic/hedonic food attributes were the major determinants of their purchase motivation at the food

retailers, and also provided vital information about their socioeconomic attributes. Similarly, it was also reported that there were much stronger interactions between the intrinsic/sensory food attributes and hedonic/extrinsic ones on consumers' purchase motivations.

On the other hand, differentiated product types of traditional food products registered by PGI and manufactured by traditional production models are heavily preferred by target consumer masses. Because they are not exposed to an intensive manufacturing process and the chemical pollutants creating a negative impact on human health and the environment. Similarly, it was also reported that the factors such as the high sensory quality and core benefit attributes of the food products with PGI, the use of natural inputs free of chemical additives and preservatives with the region of origin, their traceability and sustainability at manufacturing process, the ethnocentrism approach contributing to regional and rural development affected positively consumers' purchase motivation (Sanchez-Bravo et al., 2020; Devia et al., 2021; Rahman et al., 2021; Topcu and Çavdar, 2022).

Within the scope of the current research, the extrinsic and intrinsic food motives impacting consumers' consumption preferences and purchase decisions towards Erzurum Stuffed-kadayif could considerably shape their purchase patterns. In this context, the aim of the study is to determine consumers' purchase motivations based on the intrinsic and extrinsic food motives for Erzurum Stuffed-kadayif with protected geographical indication bought from the food retailers in Erzurum and then to create customer-oriented marketing strategies for each consumer segment.

## 2. Material and Methods

### 2.1. Material

The main material of the study consisted of primary data obtained from face-to-face questionnaires conducted with the households in Erzurum; Yakutiye, Aziziye, and Palandöken Central Districts, consuming Erzurum Stuffed-kadayif with PGI in 2019 by taking into consideration the questionnaire form approved by Ataturk University Ethics Committee with 2021/14 number. In addition to primary data, secondary data were obtained from the data of various statistical institutions and organizations (TUIK, FAO, Erzurum Chamber of Commerce, Commodity Exchanges), as well as domestic and foreign scientific research project reports and article findings and results.

### 2.2. Methods

#### 2.2.1. Method used to determine the sample size

In order to ensure the homogenous participation of the households consuming Erzurum Stuffed-kadayif in Erzurum, the city was divided into three central districts; Yakutiye, Aziziye, and Palandöken (44.325, 14.818, and 38.674 households), respectively and then the sample size in Equation 1 was calculated with the Simple Random Sampling Method (Malhotra, 1993).

$$n = \frac{Z^2 \cdot p \cdot (1-p)}{c^2} = \frac{1.96^2 \cdot 0.05 \cdot (0.05)}{0.05^2} = 385 \quad (1)$$

In Equation 1,

n: Sample size

Z: Standardized Z value (at 95% confidence interval, 1.96)

p: Erzurum Stuffed-kadayif consumption probability (0.50)

c: Error term (0.05 = ±5)

The survey numbers under the proportional techniques were calculated as 175 in Yakutiye, 58 in Aziziye, and 152 in Palandöken, and a total of 385 in Erzurum by taking into account the sample size and the number of households in each district.

#### 2.2.2. Method used for preparation of questionnaire forms

In order to design the attitude scale related to the intrinsic and extrinsic food attributes that determine consumers' purchase motivation consuming Erzurum Stuffed-kadayif in Erzurum were utilized from the domestic and foreign studies related to the research scope and context. The scale was

firstly designed with 43 marketing mix attributes (product mix: 25 items, price mix: 6 items, communication mix: 3 items, distribution mix: 9 items) impacting on their Erzurum Stuffed-kadayif purchase decisions, it was asked consumers participated in the survey to mark each statement on the attitude scales with 5-point Likert Scale (1: no important, 3: neutral/undecided, 5: very important) allowing consumers' attitudes to be perceived more accurately at the scale dimension (Kotler and Armstrong, 2018).

### **2.2.3. Methods used in statistics analyses**

In the first step, Explanatory Factor Analysis (EFA) due to having not applied any approved research scale was used to determine the main factors impacting their Erzurum Stuffed-kadayif purchase motivation (Hair et al., 2013). The EFA is a multivariate statistical dimension reduction technique trying to create a small number of unrelated, but conceptually meaningful new factors (Bursal, 2019; Civelek, 2020). Hierarchical steps for the EFA were followed to test the suitability of the data, determine the main factor number, perform the rotation (transformation) techniques, identify main factors, and calculate the explained and cumulative variances for each factor dimension, respectively.

In order to investigate the data suitability of the sample mass according to the main population for the EFA, Kaiser-Meyer-Olkin (KMO) and Bartlett's test of Sphericity were used in the research. KMO, the adequacy criterion of the sample size should be in an acceptable confidence interval (between 0.50 and 1.00). On the other hand, the correlation matrix should be different from the unit matrix in Bartlett's test of Sphericity explaining the relationship among the variables depending on the correlation matrix calculated between each pair of variables.

Whereas determining the main factor number with the EFA used Maximum Likelihood (ML) extraction method in the study, the factors with Eigenvalues greater than 1 or equal to 1 were statistically taken into consideration. The rotation technique was also used to be able to give the factor names and eliminate the variable overlaps in factor matrices. In the rotation process, the factors in the axes are rotated so that reducing the variable loads to optimal levels. Rotation could be applied in two groups as vertical (orthogonal) and oblique rotation. While it could be minimized the relationships among the factor dimensions at vertical rotation, it could be accepted the relative relations among them at oblique rotation. It is often used the varimax, quartimax, and equamax methods for vertical rotation techniques, however, it is generally used direct oblimin and promax methods for oblique rotation ones. In this study, therefore, it was applied the vertical rotation technique and its varimax method to minimize the relationships among the factors.

On the other hand, to retain and select the items under each factor dimension on a rotated component matrix in the EFA, the factor loads with a range of 0.30 and 0.50 scores are generally accepted for the cut-off threshold of the items depending on number of the items on scaling instrument and sample size reflecting main population (Quy and Ha, 2018; Bursal, 2019; Civelek, 2020). These authors suggested that, thus, if the sample size was more than 300 cases, the cut-off threshold of factor load was accepted as 0.30, also if the sample size was between 300 and 200 cases and between 200 and 150 cases, the cut-off thresholds of factor loads would be considered as 0.40 and 0.50, respectively.

In the second step, it was used the cluster analysis, a two-step cluster analysis, dividing a heterogenic target mass into two or more homogeneous segments by taking into account their attributes such as socioeconomic, psychological, and individual characteristics (Topcu and Baran, 2017; Karagöz, 2019). Two-step cluster analysis considering the ideal numbers of clusters and yielding the relationships between the main factors obtained and the consumption groups desired to be created is one of the most effective clustering techniques. In the present study, the main factors impacting the Turkish consumers' Erzurum Stuffed-kadayif purchase motivation were used in a two-step clustering analysis (CA) taking into consideration their retail selling points. It was thus segmented target consumers into three groups consuming at the restaurant (29.1% of overall consumers) and the patisserie (30.4% of those) and buying from the manufacturer stores (40.5% of those).

## **3. Results**

### **3.1. Consumers' demographic and socioeconomic profiles**

Participants' gender, age, life cycle, education and occupation status, monthly income, and expenditure groups at each cluster were presented in Table 1. The results of the study indicated that 59%

of the target consumer mass consisted of men, and the consumers with college graduates and white collars concentrated generally at each consumption segment of Erzurum Stuffed-kadayif.

Table 1. Consumers' various demographic and socioeconomic attributes

Consumers' attributes		Consumption segments of Erzurum Stuffed-kadayif						Overall consumers	
		Patisserie		Manufacturer		Restaurant			
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
<i>Gender</i>	Male	77	66	85	55	65	58	227	59
	Female	40	44	71	45	47	42	158	41
<i>(Pearson Chi – kare) = <math>\chi^2_{(2603;2)} = 24,746</math> <math>p=0.000</math></i>									
<i>Education</i>	Literate	4	4	9	6	3	3	16	4
	First school	20	17	39	25	31	28	90	23
	High school	45	39	39	25	35	31	119	30
	College	48	41	69	44	43	38	160	42
<i>(Pearson Chi – kare) = <math>\chi^2_{(2606;4)} = 77.378</math> <math>p=0.000</math></i>									
<i>Occupation</i>	Businessman	11	9	27	17	13	12	51	13
	White-collar	50	43	49	31	42	38	141	37
	Blue-collar	18	15	12	8	17	15	47	12
	Retailers	27	23	40	36	26	24	93	24
	Pensioners	9	8	15	10	12	11	36	9
	Farmers	1	1	7	5	1	1	9	2
	Housewife	1	1	6	4	1	1	8	2
Total	117	100	156	100	112	100	385	100	
		$\bar{x}$	<i>n</i>	$\bar{x}$	<i>n</i>	$\bar{x}$	<i>n</i>	$\bar{x}$	<i>n</i>
<i>Age group</i>	+ < 30 years (young)	30.76	37	30.43	30	30.56	16	30.60	83
	30-50 years (mature)	42.23	69	43.33	84	42.59	64	42.76	217
	+ > 50 years (more mat.)	56.64	11	58.05	42	56.94	32	57.45	85
	Group means	39.96	117	44.81	156	44.97	112	43.38	385
<i>F<sub>(382,2)</sub> = 10.559 <math>p=0.000</math></i>									
<i>Income*</i>	+ < \$400 (low-income)	321.43	14	360.00	24	365.00	12	350.40	50
	\$400-1000 (middle-income)	416.04	91	751.56	109	750.91	88	740.14	288
	+ > \$1000 (high-income)	1398.33	12	1421.74	23	1384.67	12	1406.30	47
	Group means	738.80	117	790.13	156	777.46	112	770.85	385
<i>F<sub>(382,2)</sub> = 0,903 <math>p=0.406</math></i>									
<i>Expenditure*</i>	+<\$400 (low-expenditure)	320.00	21	318.60	43	310.00	19	316.99	83
	\$400-700 (middle-expend)	591.94	62	582.90	69	596.56	61	590.16	192
	+>\$700 (high-expenditure)	848.82	34	885.36	44	890.94	32	875.69	110
	Group means	617.78	117	595.36	156	632.05	112	612.85	385
<i>F<sub>(382,2)</sub> = 0.903 <math>p=0.404</math></i>									
<i>Family size</i>	+ < 4 person (core family)	2.55	56	2.63	40	2.68	25	2.60	121
	4-6 person (small family)	4.18	57	4.64	108	4.67	75	4.54	240
	+ > 6 person (large family)	11.00	4	8.50	8	9.17	12	9.25	24
	Group means	3.63	117	4.32	156	4.71	112	4.22	385
<i>F<sub>(382,2)</sub> = 10.084 <math>p=0.000</math></i>									

$\bar{x}$ : arithmetic means, *n*: sample size, %: relative rate, \*exchange rate is ₺ \$<sup>-1</sup> 5.75 on September 15, 2019.

On the other hand, the results also highlighted that the average age of overall consumers was 43.38 years, the family size consisted of 4.22 individuals, and the middle age group and large families showed intensity in each consumption segment. Similarly, the average income and expenditure levels for all consumption groups were \$1406.30 and \$875.69, and these economic indicators also were of the highest shares in each consumer segment.

### 3.2. Results of the EFA

The goodness fit statistics results and five factor dimensions that consider 31 items impacting the consumers' Erzurum Stuffed-kadayif purchase decisions in the EFA by being eliminated their load overlap and meaningless loads were given in Table 2. KMO that compares the observation and partial correlation coefficients in the EFA was calculated as a value of 0.911 ( $p < 0.001$ ). The test score was acceptable at an excellent level due to much closer to the 0.99 threshold value, thus, providing the confirmation of sampling adequacy for the EFA. Bartlett's test of Sphericity statistics for the main factors related to consumers' purchase decisions, then, was calculated as  $\chi^2_{(190;0.05)} = 6650.10$  ( $p = 0.000$ ), and the unit matrix hypothesis was rejected ( $p < 0.001$ ). Two statistics evaluating the data indicated that the data was at an excellent level for the EFA.

Table 2. The results of the EFA related to consumers' Erzurum Stuffed-kadayif purchase motives and their item loads

The items and factors interpretations	The factors and items loads*			
	F <sub>1</sub>	F <sub>2</sub>	F <sub>3</sub>	F <sub>4</sub>
<b>Food image and value</b>				
Price and quality relation	0.928			
Product quality	0.903			
Product brand and package label	0.860			
Product price	0.802			
Packaging appeal	0.750			
Package weight and size	0.690			
Advertisement impact	0.624			
<b>Ready-made local dessert</b>				
Serving at social meetings		0.835		
Preparing in a practical way		0.765		
Being a light dessert		0.761		
Longer storage possibilities		0.746		
Offering along with tea		0.689		
Reference group impact		0.682		
<b>Entrocentrism approach</b>				
Contribution to the regional food retailers			0.897	
Contribution to the region economy			0.804	
Contribution to regional development			0.774	
Contribution to mitigate migration			0.634	
<b>Cultural integration</b>				
Being a part of the regional diet culture				0.862
Being a food with the region of origin				0.841
Being a part of cultural integration				0.640
<b>Eigenvalues</b>	5.153	3.806	3.017	2.217
<b>Explained share of variance (%)</b>	25.764	19.028	15.085	11.085
<b>Cumulative share of variance (%)</b>	25.764	44.792	59.876	70.961
<b>KMO (Kaiser-Meyer-Olkin) statistic</b>				0.911
<b>Bartlett's test of sphericity</b>	[Chi - square ( $\chi^2_{190;0.05} = 6650.10$ ( $p = 0.000$ ))]			
<b>Maximum Likelihood (goodness-of-fit test)</b>	[Chi - square ( $\chi^2_{116;0.05} = 494.860$ ( $p = 0.000$ ))]			

\*It was suppressed the smaller coefficients than 0.350.

The results of the EFA indicated that the four-factors solution with Eigenvalue scores greater than 1.0 were derived from 20 items impacting the consumers' Erzurum Stuffed-kadayif purchase motivation in Table 2. The four factors were logically identified as the food image and value, ready-made local dessert, entrocentrism approach, and cultural integration, and their explained total variance was found as 70.96% (Quy and Ha, 2018). The first factor referring to the food image and value explained 25.76% of the total variance. It was thus assessed that the food image and value consisted of the loaded items measuring a wide range of real food images and value based on the relationships among

the product mix, price mix, and communication mix, which strengthened consumers' Erzurum Stuffed-kadayif purchase motivation.

Similarly, the second factor explained by 19.03% total variance identified as a ready-made local dessert that is often serviced practically along with meals or tea at social meetings under the effects reference groups. At the social meetings organized by consumers with Erzurum-originated, Erzurum Stuffed-kadayif is one of the most preferred desserts, and it has been also consumed by overall consumers with great satisfaction in diets. The third factor supported the first and second factors was named as entrocenrism approach (15.09% explain rate), that is, Erzurum-originated consumers consuming Erzurum Stuffed-kardayif have also tried to obstacle regional migration by orientating to the local food retailers to trigger regional economic development. On the other hand, the last factor was determined as the cultural enragration explaining 11.09% of the total variance. Erzurum Stuffed-kadayif, indeed, a crucial dessert of traditional culinary culture in Erzurum, created a cultural integration by being a part of the diets with protected geographical indication (PGI) under the region of origin.

### 3.3. Results of the CA

The main factors derived from the EFA, and shaping the purchase motivations of Turkish consumers who bought Erzurum Stuffed-kadayif from the local food manufacturer stores, patisseries, and restaurants were given in Table 3. The results of the CA indicated that consumers consuming Erzurum Stuffed-kadayif at the local restaurants focused on the food image and value representing a part of the regional cultural integration that triggered their purchase motivation. Especially, in order to maintain the regional culinary culture for Erzurum Stuffed-kadayif, consumers oriented consciously to these dessert images with the cultural consumption motives together with daily meals at the local restaurants.

On the other hand, it was analyzed that consumers buying Erzurum Stuffed-kadayif from the local food manufacturer stores also contributed meaningfully to the entrocenrism approach by serving the ready-made Erzurum Stuffed-kadayif at the social-cultural meeting strengthening the cultural integration on their purchase motivations. Similarly, it was assessed that consumers buying from or consuming Erzurum Stuffed-kadayif at the local patisseries also attributed a greater priority to entrocenrism approach triggering their purchase motivation through interactive cultural integration.

Table 3. The cluster center values related to the consumers' Erzurum Stuffed-kadayif purchase motives and the sample sizes in each cluster

The main factors	Consumer segments*					
	Restaurant		Manufacturer		Patisserie	
	$\bar{x}$	p	$\bar{x}$	p	$\bar{x}$	p
<b>Food image and value</b>	0.24	0.002	-0.05	0.002	-0.10	0.002
<b>Ready-made local dessert</b>	-0.17	0.001	0.18	0.001	-0.07	0.001
<b>Entrocenrism approach</b>	-0.30	0.002	0.14	0.002	0.18	0.002
<b>Cultural integration</b>	0.17	0.001	0.12	0.001	0.23	0.001
<i>Number of total cases at each cluster (n)</i>	112		156		117	
<i>Population ratio for each cluster (%)</i>	29.1		40.5		30.4	

\*Bold values indicate the highest final cluster center scores in each segment.

\*\*Total sample size (n): 385 households.

## 4. Discussion

The most effective factors on consumers' food purchase motivation during their purchase period are accepted as the drivers of the marketing mixes covering the product, price, communication, and buying convenience mixes (Kotler and Amstrong, 2018). Especially, the local food image and cultural values impacting the consumers' purchase decisions are shaped by appealing motives of the product, price, and communication mixes under cultural integration. Previous researches also informed that the food image and value under culinary culture linked firstly with the various combinations of the major extrinsic product motivation drivers on consumers' local food purchase decisions (Chong et al., 2022;

Khan and Pandey, 2022; Liu et al., 2022; Shi et al., 2022; Topcu, 2022; Giannoutsos et al., 2023; Kaçmaz et al., 2023; Kumar et al., 2023).

Of these studies related to the food image and value on consumers' local food purchase motivation, Kushwah et al. (2019), Akay (2021), Kadirhanoğulları et al. (2021), Shi et al. (2022), Khan and Pandey (2022), Apak and Gürbüz (2023), Huddleston et al. (2023), Kumar et al. (2023) and Perumal et al. (2023) highlighted that the cultural attitude, the region of origin, food brand, advertising, food packaging and labelling, optimum pricing, social media platform, consumption ethically and culinary culture, social responsibility consciousness affected positively consumer perceived local food image and cultural appreciation (subjective value) linking with the cultural integration on their local food buying intentions at the food stores or online platforms, and thus there was a strong correlation among local food image and cultural appreciation under the cultural integration, and it could be also provided a major contribution to sustainable food consumption with the local or the region of origin in the context of cultural integration.

Similarly, Fakreddine and Sanchez (2023), Magalhaes et al. (2023), Mesias et al. (2023), and Siddiqui et al. (2023) also emphasized that the brands, labels, and the region of origin information presented on food packages were generally considered as the important determinants on consumers' purchase decision and motivations, and thus local food image and cultural value judgments for consumers impacted directly on their repurchase decisions. In the current study, indeed, the Erzurum Stuffed-kadayif image and cultural value appreciation under the cultural integration were found to be the most impact stimuli on purchase motivation of consumers preferring the local diners.

On the other hand, Erzurum Stuffed-kadayif promoting to maintain cultural integration among Erzurum-originated consumers purchasing from the manufacturer vendors has still functioned as a ready-made local dessert and has also provided a fairly significant contribution to the entrocenrism approach at the research region. The results of the study, indeed, highlighted that Erzurum Stuffed-kadayif as a part of Erzurum culinary culture buying from the manufacturer stores was serviced more practically along with the daily meals or tea presentations as a ready-made local dessert at social meetings organized by Erzurum-originated consumers residing in all the provinces of Türkiye, and thus not only was it sufficient to ensure a stronger cultural integration among the younger generations, but the entrocenrism approach was also activated. Consequently, it was pointed out that there was a strong correlation among three factors impacting on buying motivation of the consumers purchasing the local dessert from the local manufacturer vendors.

Focused on the entrocenrism approach driving consumers' buying motivation and decision towards the local foods, Chen and Antonelli (2020), Migliore et al. (2021), Miguel et al. (2022), Maro et al. (2023), Siddiqui et al. (2023), Skalkos and Kalyva (2023) and Sundqvist (2023) pointed out that consumer entrocenrism was of a strong and positive relationship with trust in the local and organic foods, to their vendors, cultural integration and convenience food, and thus it was also found to be a vital motivator of their willingness to buy and consume the local foods due to instilling a pride sense that leads to an overestimation of local food appreciation belonging to their culinary culture or ethnicity and satisfying through consumers' discriminatory sensitive buying behaviour towards the local food with the region of origin.

Attributed similarity to the trends of consumers' willingness to buy Erzurum Stuffed-kadayif from manufacturer stores, consumers adopted only the entrocenrism approach formed by cultural integration by consuming the local dessert at the local patisseries. The identify-based motivation (IBM) model based on the food consumption studies revealed that, indeed, it was differentiated with longitudinal cultural processes and situational activation by contextual cues, each with different implications for the availability and accessibility of ethnic cultural knowledge, and thus the motivation model also associated by consumers' cultural integration with a linear and positive correlation on their food consumption motivations (Aguirre-Rodriguez et al., 2022; Shi and Jiang, 2022; Apak and Günbüz, 2023; Hedriana et al., 2023).

As a result of the cultural integration based on Erzurum culinary culture, consumer entrocenrism promoted their purchase intention and motivation towards the local cultural foods. Erzurum-originated consumers' motivation to purchase Erzurum Stuffed-kadayif was reflected in their attitude towards loving and taking pride in unique local foods and cultures as compared with the others, and thus this phenomenon affected positively their purchase motivation. Dhewi and Oktaviani (2023), Maro et al. (2023), Siddiqui et al. (2023) and Sundqvist (2023) revealed that consumer entrocenrism

was of a positive and significant impact on buying attitude and motivation, and thus consumers' ethnocentrism was also accepted as a market segmentation tool in most developed countries.

## Conclusion

The EFA results of the study revealed that the main factors impacting the Turkish consumers' Erzurum Stuffed-kadayif purchase intention and motivation were the food image and value, a ready-made dessert, ethnocentrism approach, and cultural integration. The CA results also highlighted that while middle-income consumers consuming this traditional dessert at the local restaurants were satisfied fairly higher with the local food image under cultural integration, low-income consumers consuming Erzurum Stuffed-kadayif at the local patisseries also attributed big importance to the ethnocentrism approach under cultural integration. On the other hand, high-income consumers purchasing Erzurum Stuffed-kadayif a ready-made traditional dessert from local manufacturer vendors tried to contribute considerably to sustainable food supply and consumption with an ethnocentrism approach under cultural integration.

Therefore, it should be implemented differentiation and positioning strategies based on the food image along with the manufacturing and processing strategies strengthening cultural integration at the local restaurants for middle-income consumers, and the intensified multi-segment marketing strategies contributing to regional development by acting ethnocentrism approach through cultural integration at the local patisseries for low-income consumers, respectively. Similarly, it should be applied the manufacturing and penetrating to new markets strategies focused on Erzurum Stuffed-kadayif as a ready-made dessert reflecting Erzurum culinary culture as a crucial tool of cultural integration and ethnocentrism approach for high-income consumers purchasing this local dessert from local manufacturer vendors.

Although this study was one of the first research conducted on consumers' Erzurum Stuffed-kadayif purchase motivation in the economics literature, there were also some limitations. In the study, thus, these limitations could be addressed for the next research. Firstly, the study focused on only consumers in Erzurum due to funding and time constraints. The future researches, hence, could be planned for larger sample sizes accounting for consumers residing at more important trade and consumption centers. Secondly, it was applied the EFA as the research model in the study, but it could be utilized from Confirmatory Factor Analysis (CFA) for the next research, as well.

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Retraction